

# ESA 2010 GNI INVENTORY - FRANCE

## **CHAPTER 1**

## **OVERVIEW OF THE SYSTEM OF ACCOUNTS**

(This chapter should be around 25 – 50 pages in length)

### **Approaches used**

All the data, accounts and tables made public by INSEE under the heading of the national accounts form what is called Base 2010. ESA 2010 is the conceptual framework of reference. In principle, Base 2010 does not diverge from ESA 2010 at all.

To measure GDP, the French national accounts apply the three approaches – production, income, expenditure – used traditionally. They are used in a complementary rather than a competing fashion, the aim being to find convergence as early as the choice of statistical sources. However, they are used autonomously until the final synthetic phase, where an input and output table is used as an accounting framework.

### **Economic territory**

The economic territory covered by the national accounts base 2010, under § 2.05-a) of ESA 2010, consists of metropolitan France and the overseas departments of the French Republic (DOM: Guadeloupe, French Guiana, Martinique, Reunion Island and Mayotte). The definition of the economic territory is in line with the supplementary indications given in points b) to e) of § 2.05, and § 2.06 of ESA 2010.

Overseas territorial authorities (COM) are not part of the economic territory. As some of these territories contain military bases – in French Polynesia – or scientific bases – in the French Southern and Antarctic Lands – they are included in the French economic territory as territorial enclaves (ESA 2010, § 2.05-d). The exclusion of the COM from the economic territory is consistent with the European Commission decision of 26 July 1991 (91/450/EEC, Euratom) and European Commission regulation 109/2005.

The case of Mayotte requires some explanation: Mayotte became a French department in 2011 and only acquired the status of ultra-peripheral region (UPR) of the European Union in 2014. Hence Mayotte is only included in the GNI notified to Eurostat for budget purposes from 2014 (given that the GNI determines to a large extent the distribution of contributions by Member States to the EU budget), and not for previous years. However, the actual national accounting data include Mayotte for the entire period covered by the national accounts (1949 to the present). Thus the economic activity of Mayotte is included in the GDP and GNI estimates published on insee.fr for the whole of the period 1949-2015.

### **Organisation of the accounts**

The National Accounts Department (DCN) at INSEE has a staff of around 60. It is responsible for the methods and concepts of the national accounts, especially with regard to interpreting the European ESA 2010 manual. It produces and disseminates the annual and quarterly non-financial accounts.

For the annual accounts, it produces syntheses and carries out statistical adjustments. It coordinates the work of the national accounting units outside the National Accounts Department (Business Statistics Directorate at INSEE, Directorate-General of Public Finances - DGFIP, Directorate-General of the Treasury, Banque de France). The data from these units are semi-prepared in the form of intermediate systems. The financial accounts, however, are produced almost entirely by the national accounts department at the Banque de France. The INSEE National Accounts Department validates these semi-prepared data and the Banque de France data. It then performs the transition to the national accounting concepts and makes any corrections to the method based on the data from these intermediate systems. It also carries out assessments based on various sources, especially on consumption.

Quarterly accounts are produced by a specific team, distinct from the annual accounts team. They are constructed from short-term economic indicators taken from many different bodies. These indicators are calibrated by performing econometric relations on the annual accounts. Quarterly accounts and annual accounts are entirely consistent in gross value terms.

The National Accounts Department coordinates contributions from national accounting units outside the Department. Overall, there are about 175 national accountants, or approximately 130 full-time equivalents, not to mention the producers of the primary sources and the various indicators. The organisation of the Department is given below.

### **Organisation of the National Accounts Department:**

Head of Department

alongside the Head of Department:

- 1) one deputy in charge of conceptual expertise
- 2) the editor of the annual report on the French economy
- 3) one person responsible for secretarial duties in the Department

4 divisions whose roles and composition are described below

*Note: the main sources from outside the Department are given for each unit, to make comparisons easier between different organisations, as it is sometimes difficult to distinguish between those who are preparing primary sources and those who are actually compiling the national accounts. Staff numbers are given in brackets for each section and division.*

#### “Concepts, methods and assessment of national accounts” Division (8)

Interpretation of SNA 2008 / ESA 2010, improvements to assessment methods, studies on the quality of accounts, experimental assessments, backcasting of the national accounts, dissemination of accounts, IT assistance and support.

- “Dissemination” Section (3)

*Putting tables, publications and other documents online, preparing international questionnaires and dissemination to international bodies*

*Updating national accounts data in INSEE's non-specialised publications*

#### “Summaries of goods and services” Division (16)

- “Input-Output Table and synthesis of supply and use balance” Section (4)

*Sources: supply and use balances (ERE) from INSEE's Business Statistics Directorate, and other units of the National Accounts Department*

- “Employment and productivity” Section (3)

*Sources: INSEE employment division (global levels based on censuses), administrative sources and business surveys for changes, distribution by sector and working time*

- “Household consumption” Section (6)

*Sources: many sources (professional bodies, etc.), some from units producing satellite accounts*

- “Calculation of PPP” Section (2)

*Sources: price readings taken by the INSEE Ile de France Regional Office or by external contributors (for construction and equipment), administrative sources used by INSEE (Demographic and Social Statistics Directorate) covering civil service salaries*

#### “General summary of accounts” Division (16)

- “General government accounts” Section (6)

*Sources: intermediate system from Directorate-General of Public Finances*

- “Non-financial enterprise accounts and balance sheets” Section (4)

*Sources: Annual Business Statistics (ESANE) produced by the INSEE Business Statistics Directorate, various sources for wealth*

- “Accounts of financial corporations” Section (3)

*Sources: intermediate system on financial institutions from the Banque de France, intermediate system (administrative report) from the Prudential Supervisory and Resolution Authority (ACPR)*

- “Summary of sector accounts, household and NPISH accounts” Section (2)

*Sources: various sources on NPISH and households. However, the main information for household accounts comes from a summary of accounts from different sectors.*

#### “Quarterly accounts” Division (15)

*Sources: short-term indicators by INSEE, DGFIP, and many other sources*

- “Synthesis of goods and services” Section (2)

- “Synthesis of sector accounts” Section (6)
- “Consumption and savings” Section (3)
- “Foreign trade and rest of the world account” Section (3)

## **Supervision and control systems**

During each accounting campaign the French national accountants carry out a systematic analysis of revisions to the series that they produce. This analysis, which is a key feature of quality control, has several aims:

9. to identify revisions that are abnormal in scale and/or important;
10. to determine the origin of these revisions: changes made by source data producers, change in national accounting method, etc.
11. to ensure that these revisions are indeed justified and, if not, to adjust the spontaneous estimates to ensure the coherence of the series over time.

These systematic analyses of revisions and their origins provide a detailed diagnostic of the reliability of the different sources supplying data and thus help to identify the main risks associated with the quality of the source data used by the national accountants. Agreements are in place to govern exchanges of information (content and data transmission timetable) between the national accountants and their main suppliers: DGFIP, Banque de France, Balance of Payments, etc. These agreements are reviewed regularly (about every 5 years). Exchanges of data inside INSEE (especially with the Business Statistics Directorate) are not covered by agreements as they are systematic exchanges of information, framed in some cases through formal meetings (e.g. ESANE-National Accounting steering committee), in order to guarantee the quality and timely delivery of data.

Particular attention is also paid to documenting production processes in very comprehensive methodological notes. This systematic documentation is a fundamental component of the process of monitoring the quality of accounts: it requires a rigorous and transparent description of the production process, and makes knowledge transmission easier when staff are moved around, something which happens often: most national accountants are in post for about 3 to 4 years before joining other Directorates within INSEE or moving into one of the Ministerial Statistical Offices.

The methodological notes for the national accounts for base 2010 are available on the [national accounts page of the website](#). The methodological notes for [base 2005](#) and [base 2000](#) can also be accessed via the INSEE website (these have not yet all been updated to base 2010). The INSEE website also gives access to the [notes on analyses of revisions](#) published every year.

## **1.1 Introduction**

Describe the main approaches to GDP and the geographical coverage. Describe the organisation and responsibilities within the NSI (provide organisation chart and indications of

the number of staff working on national accounts). Describe the supervisory and control systems in place; cover the following aspects:

- 1) The performance of a regular and comprehensive analysis of potential risks in the main data sources and methods used and the application of actions aimed at managing and minimising these risks. This approach should include a description of the national accounts compilation process. The approach should be formalised by the National Statistical Institute in order to further reinforce the national accounts compilation process.  
All sources and methods used to compile the accounts are given in written methodological notes available on the INSEE website. In the production phase, estimated variations are systematically subject to critical analysis, taking into account changes already noted in the past.
- 2) The existence of formal service level agreements between the national accounts units and all the units supplying basic statistical data to the national accounts units in order to aid proper control and a timely delivery of good quality data.  
Agreements are in place with suppliers of the main sources of data, especially structural business statistics and public sector accounting.
- 3) The regular production of quality reports on statistical sources and products.  
Each year, the national accounts publish a detailed report (about fifty pages) describing revisions made to the annual accounts and clarifying sources, changes in methods or correction of errors requiring revisions. This report is posted on the INSEE website.
- 4) The documentation of supervisory controls performed by management on national accounts compilation.  
Each unit in charge of producing a sub-set of the accounts provides its line management with a report on the completed account with details of the results and an analysis, explaining any difficulties encountered and areas of uncertainty.
- 5) The performance of internal audits/reviews on the processes of collection and compilation of statistical data.

## **1.2 The revisions policy and the timetable for revising and finalising the estimates; major revisions since the last version of the GNI Inventory**

Summary of Chapter 2. Outline the policy for current and major revisions. Outline the impact of the transition from ESA 1995 to ESA 2010 on GNI.

Each year, in May of year N, the accounts for N-3 (definitive), N-2 (semi-definitive) and N-1 (provisional) are updated. Years N-4 and earlier, which are considered to be definitive, are not revised again until the next change of base (benchmark revision).

Quarterly accounts are updated every month. Each time they are published, these revisions can potentially affect all the data series, given that a calibration-fitting econometric method is used to produce the quarterly estimates.

When ESA 2010 was implemented, the GNI was revised upwards by 3.2% for 2010. Almost  $\frac{3}{4}$  of these revisions (2.3%) were due to conceptual innovations in ESA 2010, in particular the capitalisation of R&D (causing a rise of 2.1%). The remaining revisions can be explained by new data sources, improvements in the methodology and changes introduced to allow for the lifting of reservations outlined in ESA 1995.

### **1.3 Outline of the production approach**

Summary of Chapter 3. Outline at least the reference frameworks (for example, register of enterprises, registers of government units, employment data), main data sources, transition from the basic data sources (e.g. private accounting, survey or administrative data) to national accounts concepts and the main approaches taken with respect to exhaustiveness (using the N1-N7 taxonomy of the tabular approach to exhaustiveness).

#### Registers

Public registers managed mainly by the Prudential supervisory and Resolution Authority (ACPR) give an exhaustive description of financial corporations (S.12), excluding the case of financial auxiliaries.

An overwhelming majority of general government units (S.13) are identified through registers managed by fiscal authorities (the Directorate general of public finances - DGFIP).

Besides all enterprises (not only corporations but also unincorporated enterprises, associations, foundations), whatever their size, are legally required to register in an exhaustive file, SIRENE, from their creation. SIRENE, which contains information on the main activity of each unit, thus allows to identify:

- 1) financial auxiliaries classified in S.12 that cannot be identified through registers managed by financial authorities;
- 2) the tiny minority of units classified in S.13 that cannot be identified through registers managed by DGFIP: these are mainly corporations - or groups of corporations engaged in the same economic activity - controlled by central or local government units that national accountants have considered to be non-market on a case-by-case analysis;
- 3) units classified in S.15.

Units identified in SIRENE that are not classified in S.12, S.13 or S.15 are allocated to S.11 if they are corporations or to households (subsector S.14A) if they are unincorporated enterprises.

#### Main data sources

Financial corporations (excluding financial auxiliaries) are legally obliged to give detailed information to financial authorities, that Insee uses to build national accounts.

All public units identified through DGFIP registers must send their accounts each year to DGFIP: these accounts are used by Insee to build national accounts.

All other economically active entities, whatever their size, are legally obliged to send their annual accounts to DGFIP each year, an information used by Insee to compute national accounts.

However this constraint is binding only for market producers since their income tax is computed on the basis of these accounts. For non-market producers (S.15 units) that pay no income tax this obligation remains theoretical and national accounts thus prefer to use information from both surveys and administrative data (records on social security contributions paid by these entities on wages paid to their workers).

The other exception is that very small units may opt for very simplified fiscal obligations, provided their turnover does not exceed a very low threshold (in practice these units cannot have employees): in that case national accounts only have information on their turnover, their taxes being calculated a fixed proportion of their turnover.

Of course accounts transmitted to DGFIP by market units do not cover the case where they decide to hide their activity to avoid taxation. In most cases national accounts use the accounts transmitted to DGFIP and add an estimate of the value added generated by hidden activities based on fiscal audits (see below the main approaches taken with respect to exhaustiveness).

However there are exceptions to this general method, for sectors where a large part of the economic activity is assumed to be hidden and where survey data are assumed to give a good estimate of total activity. National accounts then prefer to use data from surveys precisely designed to give an overall picture of the corresponding fields of activity. This is notably the case for 1) farming, forestry and fishing, 2) the production of housing services and 3) the production of social work services.

#### Transition from the basic data sources to national accounts concepts

As described above national accounts heavily rely on accounting data provided by either private or public entities. This is made possible by the fact the accounting framework is very precisely defined by law for all units.

The private accounting framework (Plan comptable général - PCG) provides very detailed information that allows to compute not only corporations' income but also their output, intermediate consumption and value added. All units, whatever their size, must transmit to DGFIP accounts elaborated according to PCG concepts: for the smaller units the account recording is somewhat simplified but the information provided remains sufficient for national accounts. Enterprises that produce accounts according to other accounting frameworks - e.g. IFRS for quoted corporations - must also transmit to DGFIP accounts elaborated according to PCG concepts.

For public units the situation is basically the same: public accounting standards derived from the PCG are legally binding. They follow accrual accounting principles (even though they may deviate in some cases from national accountants' concepts and practice).

Of course conceptual corrections are necessary to make private and public accounting data consistent with the ESA 2010 framework. Corrections are for example necessary for the valuation of inventories, the recording of flows linked to financial leasing, the recording of expenditures on software or R&D, the recording of expenses on insurance premiums, FISIM... They are performed by national accountants on accounting sources.

Moreover an important work of reconciliation of data between different sources has to be implemented and it has an impact on the estimate of value added and hence GNI. For example the amount of taxes collected on corporations by fiscal authorities that is given by public accounts data does never spontaneously match with the total amount of taxes paid by corporations that can be found in their accounts. The basic assumption is that corporations record the right figures for their total expenses but do not necessarily allocate them correctly between different subcategories: taxes and intermediate consumption for example. Hence, to bring taxes paid and collected consistent between different institutional sectors, the discrepancy between taxes paid and collected is typically reported on the estimate of intermediate consumption of corporations, which has a direct impact on the estimate of their value added.

#### Main approaches taken with respect to exhaustiveness

The corrections performed with respect to exhaustiveness are the following (by decreasing quantitative importance using the N1-N7 taxonomy):

- 4) N6 (€ 51.9 bn of gross value added): these figures are derived from the analysis of fiscal audits of registered units, they cover fraud on turnover, operational expenses as well as VAT;
- 5) N7 (€ 42.3 bn of gross value added): mainly own-account production of firms and for a lesser part income in kind;
- 6) N1 (€ 15.8 bn of gross value added): these figures cover hidden activity by not registered producers or by household as employers, they result of an experts' analysis;
- 7) N3 (€ 4.9 bn of gross value added): own-account production of households;
- 8) N2 (€ 2.6 bn of gross value added): illegal production and trafficking of narcotics and smuggling of tobacco;
- 9) N4 (€ 2.4 bn of gross value added): various market units not present in structural business statistics, their accounts are manually incorporated in total estimates.

#### **1.4 Outline of the income approach**

Summary of Chapter 4. Outline at least main data sources, whether independent estimates of gross operating surplus and mixed income are compiled, transition from the basic data sources (e.g. private accounting, survey or administrative data) to national accounts concepts and the main approaches taken with respect to exhaustiveness (using the N1-N7 taxonomy).

The income approach is closely intertwined with the production approach since they are both based on the same sets of private and public accounting data. Hence the income approach can be adequately described in a similar way as the production approach as described above. In particular the same adjustments for exhaustiveness are performed on both approaches in a consistent way for the corresponding variables - output and intermediate consumption in the production approach, wage compensation, taxes, subsidies, gross operating surplus and mixed income in the income approach.

Generally speaking, for the activities for which exhaustive accounting data are available the different components of the income approach (gross operating surplus and mixed income, wage compensation, taxes and subsidies on production) are basically given by accounting data. The adjustments made by national accountants to accounting data aim at 1) ensuring the transition from private or public accounting frameworks to national accounts concepts and 2) reconciling data obtained through the different accounting sources (this is especially true for taxes that are registered as receipts in public accounts and as expenses in private accounts, but the amounts do not spontaneously match between the different sources. The same remark is of course valid for subsidies).

An exception is however made for non market activities (performed mainly by general government entities or NPISH): gross operating surplus cannot directly be obtained from accounting data since output is calculated as the sum of production costs, including the consumption of fixed capital (CFC). Gross operating surplus is thus equal to CFC and is obtained in a statistical way based on the permanent inventory method (PIM): basically Gross operating surplus is derived from past investment flows by types of assets and assumptions (shared at international level) on the service life of various types of assets.

The case of other activities (i.e. when accounting data do not provide an exhaustive picture) is totally different: output and value added are basically estimated through survey data in the production approach. Other data sources are used to estimate wage compensation (surveys or administrative data from public entities collecting social security contributions paid on wages) as well as taxes and subsidies on production (public accounting data). Gross operating surplus and mixed income are then estimated as a residual.

### **1.5 Outline of the expenditure approach**

Summary of Chapter 5. Outline at least main data sources, transition from the basic data sources (e.g. private accounting, survey or administrative data) to national accounts concepts and the main approaches taken with respect to exhaustiveness (using the N1-N7 taxonomy).

The availability of detailed and exhaustive accounting data for almost all economically active units - a feature rather specific to France - lead French national accountants to give a dominant role to the production approach and the income approach (which, once again, are closely intertwined). Hence the components of the expenditure approach are in practice adjusted to ensure the consistency between the gross value added given by the expenditure approach and the one given by both the production and the income approach.

The expenditure approach is based on autonomous sources, different from the accounting data used for the production approach and the income approach. These various sources are: VAT records, regulation authorities (e.g. for gambling or communication services), social security

reimbursements (for health services), car registration files, surveys on retail trade performed by subcontractors, employers' federations for a given sector (e.g. clothing)...

An analysis is also performed to ensure that the levels of consumption in the expenditure approach are globally consistent with data of the Households budget Insee survey. The conclusion is rather positive but the figures cannot be exactly the same: the scope of products covered by the survey does not exactly match the scope of households' final consumption in national accounts, the survey gives estimates by product and/or consumption function of the consumption of residents whereas the level of consumption in national accounts for a given product of consumption function covers consumption on the economic territory (either by residents or non residents...).

An analysis of corporations' balance sheets is also performed to ensure that the level of GFCF in the expenditure approach is globally consistent (not product by product, but by large groups of products) with private accounting data. The estimates of changes in inventories basically stem from private and public accounting data (after adjustment for ensuring a valuation consistent with national accounts concepts).

The expenditure approach relies on the balancing of supply and use product by product on a relatively detailed scale (139 products) within the supply and use table framework, both in current prices and in previous year prices.

Although the expenditure approach is adjusted to be made consistent with the total gross value added of institutional sectors derived mainly from accounting data (but also surveys for farming, forestry and fishing, or for social work) in the production and income approaches, it plays a significant role in the transition to GDP. For that purpose theoretic VAT rates (that are given by fiscal experts from the ministry of finances) are applied to intermediary and final uses of the expenditure approach, differentiated by product and by type of use. So the way the total value added is allocated by product and type of use in the expenditure approach has an incidence of GDP and hence GNI.

### **1.6 The balancing or integration procedure, and main approaches to validation**

Summary of Chapter 6. Describe at least whether all three approaches to GDP are used, outline the mechanism used to balance or integrate the three approaches and the level of manual versus automatic balancing.

As already mentioned above, the availability of accounting data for all enterprises justifies that national accountants give a dominant role to the combined production and income approaches. In practice the expenditure approach is adjusted to ensure consistency with the two other approaches.

However this adjustment is not "blind" since the compilation process relies on the balancing of supply and use product by product at a detailed level (139 products). Hence, in the annual production process national accountants have to ensure that this detailed balancing is reasonably feasible: if not, it might be the sign that something went wrong in the compilation process of the accounting data used for the production and income approaches. In that case national accountants have to go back to these primary data to check that there are no errors.

## 1.7 Overview of the allowances for exhaustiveness

Summary of Chapter 7. Outline the general approach to exhaustiveness. Explain which approach to GDP is considered the most exhaustive and how the consistency of exhaustiveness adjustments is ensured between the different approaches to GDP.

Since the dominant approaches are those based on accounting data transmitted to fiscal authorities, it is essential that national accountants ensure a proper (although necessarily imperfect) adjustment for the case of entities that hide their activity to avoid taxation.

In the case of activities hidden by legal units national accountants base their allowances for exhaustiveness on the analysis of fiscal units. National accountants have detailed (firm-level) information and can identify 1) legal units that were audited and those that were not audited and 2) for audited units, the hidden activity (as discovered by fiscal auditors) as a percentage of declared activity. Of course national accountants do not base their calculations on the total amount of fraud since all types of fraud do not correspond to hidden activity. Moreover considering the average rate of hidden activities on audited legal units for a good proxy of total hidden activity as a percentage of total declared activity would exaggerate the total amount of hidden activities: fiscal auditors target their efforts on firms for which fraud is more likely. Hence an econometric model is used to control for this selection bias and avoid overestimating the amount of hidden activities. Of course these hidden activities also result in VAT fraud. The total allowance of exhaustiveness linked to hidden activities of legal units (including VAT fraud) amounts to € 51.9 bn in 2010 (type N6). This adjustment is directly performed on the combined production and income approaches. The fact that the expenditure is adjusted to the value added of the combined production and income approaches after adjustment of hidden activities by legal units ensures that the expenditure approach takes into account these hidden activities.

Of course the case of legally declared units does not encompass all cases of hidden activities since households may engage in market activities or employ people without registering. Adjustments thus have to be performed to take accounts of this form of hidden activities. However the information available is small in the absence of fiscal audits. These adjustments are based on sector analysis produced by experts or economic research and cannot be considered to be as precise as those based on the analysis of fiscal audits. They amount to € 15.8 bn in 2010 (type N1) and are concentrated on specific sectors (construction of dwellings, food services, domestic services...).

The second largest amount of allowances for exhaustiveness is the N7-type one: € 42.3 bn. A large part corresponds to own-account production by firms, especially on software and R&D. For software the estimate is based on the exploitation of detail wage-data that allow to identify workers that may spend (part of) their worktime on developing software for internal use. For R&D the estimate is based on the R&D survey (consistent with OECD provisions regarding this issue).

A smaller part of the total N7-type adjustment corresponds to income in kind and is based on data from the labour cost survey.

The N5-type adjustment is zero since in the French legal context there is no room of informal activity (every type of economic activity should be registered, whatever its size).

The N3-type adjustment amounts to € 4.9 bn in 2010 and corresponds to the own-account production of households (mainly farming products and construction services).

The N4-type adjustment amounts to € 2.4 bn in 2010 and correspond to legally registered and declared activities but that are not included, for various reasons, in structural business statistics. This is in particular the case of food services produced for students in universities, and of bets on horse races.

The N2-type adjustment amounts to € 2.6 bn in 2010: it covers the case of production and trafficking of narcotics, and smuggling of tobacco. No adjustment is made for prostitution since it is assumed to be already covered by N6-type adjustments obtained through the analysis of fiscal audits. No adjustment is made either for smuggling of alcohol given the relatively low level of taxes and duties on alcohol consumption in France. Adjustments made to take into account narcotics (both production and trafficking) and smuggling of tobacco are based on a demand-side approach using data from a public office specialized on these matters, the French Observatory on narcotics and addictions (*Observatoire français des drogues et toxicomanies* - OFDT).

### **1.8 The transition from GDP to GNI**

Summary of Chapter 8. Outline at least main data sources and main adjustments made in the compilation of cross border flows.

Data sources for the transition between GDP and GNI come mainly from the Banque de France, which is by law responsible for the production of balance of payments estimates.

The balance of payments published by the Bank of France since June 2014 is considered to be compliant with the concepts of the BPM6, which in principle makes the majority of the corrections for compliance with ESA 2010 inapplicable. In practice, however, the balance of payments had not finalised its new estimates in BPM6 when INSEE's national accountants needed to finalise the estimates relating to 2010. The national accountants therefore used a balance of payments that still conformed to BPM5 in order to establish the 2010 levels. In addition, the national accountants used updated but unpublished data provided by the balance of payments in March 2013 (these data were only published in June 2013 in the annual balance of payments report for 2012).

To estimate the wages and salaries paid in France to non-residents, the balance of payments uses data provided by social security funds, which provide information about the payroll subject to contributions (chosen to estimate item D.11) and the contributions paid to the social security funds (chosen to estimate item D.12): the sum of the two provides an estimate of the compensations paid to the rest of the world (item D.1). No specific adjustment is made on these data since social security funds' accounts are kept on an accrual basis, hence consistent with ESA 2010.

To estimate the wages and salaries paid from outside France to French residents working outside France, the balance of payments relies on "mirror" data, i.e. estimates of compensations paid to French residents which are provided by the balances of payment of other countries.

However a retreatment is applied in order to deduct the compensations received by French development workers (amounting to €470 million in 2010), who are in reality non-residents,

from the estimate of compensations received by the rest of the world provided by the balance of payments. INSEE obtains the estimated compensations received by development workers from the balance of payments.

Regarding flows associated to taxes and subsidies on production (D.2 and D.3), the estimates are based on public accounts data. Budgetary data (based on a cash approach) are restated to make them compliant with the principle of recording on an accrual basis.

Regarding property income flows (D.4), the primary data come from BoP estimates. Corrections are however applied to these data to ensure consistency with ESA 2010 concepts. For example, these corrections aim to ensure that property income flows are recorded before taxes, that interest flows are recorded on an accrual basis, or that property income flows associated to collective investment funds do include retained earnings.

RoW estimates do not include estimates of withdrawal of income for resident households owning a secondary residence abroad (or symmetrically non-resident households owning a secondary residence in France). The investigations carried out in 2014 and 2015 in the framework of cross-cutting reserve I on "cross-border property income" in ESA 1995 showed that not accounting for these flows (which probably leads to a slight overestimation of French GNI) had a very small impact as a % of total GNI.

Reinvested earnings are estimated by exploiting the accounts of French and foreign direct investment enterprises. However, although the dividends of the invested resident enterprises that are paid out to their direct non-resident investors and, above all, the dividends of the invested non-resident enterprises that are paid out to their resident direct investors over a given year are known, at least in part, during the weeks following their payment, this is not the case for reinvested earnings, whose amounts cannot be determined until the French companies have published their annual accounts and made known the results of their subsidiaries and foreign holdings. On the whole, therefore, direct investment earnings are not definitively established until around 15 months after the end of the reference year. They are initially subject to a statistical estimation.

The balance of payments survey on the foreign subsidiaries of French enterprises is based on the social accounts of direct foreign subsidiaries. Consequently, it does not report on cases of indirect holdings. However, the balance of payments carries out systematic research on the reinvested earnings of the indirect subsidiaries of the major French groups on an annual basis by comparing French direct investment earnings abroad with the net current (consolidated) results of the group's share declared by French groups in the framework of the OFATS (outward foreign affiliates) survey. The two approaches produce very similar orders of magnitude.

## **1.9 Main classifications used**

Summary of Chapter 9. List the classifications and describe the level of detail used by the NSI in the compilation of national accounts.

### **Classifications used for the production approach**

The classification used in the production approach is basically the Nace rev.2, i.e. the one given in ESA 2010.

More precisely, production accounts by homogenous branch of activity are elaborated at the A\*129 Nace rev.2 level. The only deviation to standard aggregate levels of Nace rev.2 is that French national accountants choose to distinguish market and non-market branches within A\*129 levels given different principles of valuation of output for market and non-market activities. This is relevant only for ten A\*129 branches (the ones where there is a significant non-market activity). Hence, in practice, production accounts are elaborated for 139 branches (A\*139 level in national classification). In the specific case of households' consumption the compilation level is far more detailed (between groups and classes of Nace rev.2).

Annual production accounts are typically published at the A88 and A38 levels that are defined at the international level. Quarterly accounts are published at a less disaggregated level since they rely on less detailed data sources: however they do not use the internationally-defined A\*21 level, but a national aggregate level in 17 branches (A\*17) that seem more appropriate for economic analysis given the structure of the French economy. The table below gives the bridge table between A\*38 and A\*17.

<b>A*17</b>	<b>A*38</b>
AZ	A
C1	CA
C2	CD
C3	CI, CJ, CK
C4	CL
C5	CB, CC, CE, CF, CG, CH, CM
DE	B, D, E
FZ	F
GZ	G
HZ	H
IZ	I
JZ	JA, JB, JC
KZ	K
LZ	L
MN	MA, MB, MC, N
OQ	O, P, QA, QB
RU	R, S, T, U

### **Classifications used for the income approach**

For the income approach the classifications used for operations and institutional sectors are typically the ones given in ESA 2010. The only deviation is that French national accountants distinguish a few subsectors within the households considered as producers:

-S.14A Unincorporated enterprises, of which:

-S.14AA non financial unincorporated enterprises

-S.14AF financial unincorporated enterprises

-S.14B “Pure” households: this case covers the activity of households as employers or as producers of real estate services.

### **Classifications used for the expenditure approach**

The classification by type of non financial assets used in the expenditure approach is the one given in ESA 2010. The classification by products is the A139 derived from Nace rev.2 already described for the production approach.

As regards the publication levels, they are the same as those described for the production approach (A88, A38, A17).

### **Classifications used in the transition from GDP to GNI**

The classifications used for the transition from GDP to GNI are the ones given in ESA 2010.

## **1.10 Main data sources used**

Summary of Chapter 10. List the main data sources used to compile the main national accounts aggregates.

### **The ESANE source**

The ESANE source compiles all of the supposedly exhaustive data covering all enterprises (legal units), produced in accordance with the General Accounting Plan (PCG). The standard tax forms include a balance sheet and an income statement conforming to the PCG.

The National Enterprise and Establishment Register Database (SIRENE) is the reference source for this information. The completion and adjustment of the accounting data, compiled in the IECN interface, involve very comprehensive processing and have a decisive impact on the exhaustiveness of the accounts. This point is developed separately below.

ESANE adds the results of structural surveys administered to enterprises: the Annual Production Surveys (EAP) for industry and the Annual Sectoral Surveys (ESA) for the other business sectors, to the accounting data gathered by matching the SIRENE register database with the accounts transmitted by enterprises to the tax authority.

The EAP and ESA surveys are administered to all of the biggest enterprises (legal units) and only to a sample of smaller enterprises. These surveys provide the following information in particular:

- 1) about the business sector of the enterprises interviewed. Information about the business sector is already available in SIRENE but it is only generally added to the register database when the enterprise is created and is usually never updated thereafter. The inclusion of the survey data allows for the correction of any errors that may arise as a consequence;
- 2) about the breakdown of the enterprise's turnover into homogeneous activity branches. Indeed, the accounting data only show the total turnover, while enterprises may have secondary activities alongside their principal activity. The EAP and ESA allow for the output to be broken down into the enterprise's different activity branches, offering a more accurate estimate of the output of different goods and services (to be added to the supply and use balances, which allow for a comparison of the different approaches to GDP).

The surveys are immediately used in the field of the biggest enterprises, in which the surveys are exhaustive and for which both the tax forms and the survey results are available.

The use of the surveys is more complex in the field of smaller enterprises, for which sampling is carried out. The results obtained in the field of the actually surveyed enterprises are extrapolated to all of the enterprises within a single stratum correlating the business sector and the size of the enterprise.

#### Allocation of accounts for enterprises that are wrongly omitted or subject to the "micro-enterprise" tax category

All of the accounting documents included in the tax return constitute a sort of inventory of industrial, commercial and handicraft enterprises, but in practice, certain enterprises are omitted from it. Late declarations submitted by enterprises are omitted from the file transmitted by the tax authority, for example. Certain enterprises may also be omitted because all amounts are reset to zero in the tax return because:

- the enterprises are taxed by a default amount for failing to submit a declaration, an accounting irregularity, etc.;
- they have not had a financial period for which the accounts have been closed during the year;
- they do not appear to have any activity; but the tax authority considers them to have had some activity because they appear in the file initiating the transmission of tax questionnaires.

ESANE is therefore responsible for estimating the data of enterprises wrongly omitted from the tax statistics. A unit that meets the following criteria is considered to be wrongly omitted from the tax source:

- it is included in the File of Permanent Taxable Persons (FRP);
- it is omitted from the file of enterprises for which the DGFIP possesses the tax forms;

- it has been declared to be active for the year in question in the last available SIRENE file; more is known about its status: it has declared a suspension of business activity during the year in question in which it is normally active, or otherwise it concerns a creation of activity;
- it has filed an account (included in ESANE) or submitted VAT declarations in at least one of the 2 previous years.

For enterprises considered to have been wrongly omitted from the tax source in this way, the accounts are estimated by taking account of the available data via the VAT declaration, or by applying the average change in the category (correlating the business sector and the size of the legal unit) to which it belongs to the last known account (last available tax forms).

The accounting items also concern particular categories of enterprises that are rightfully omitted from the files constituting the tax forms because they are legally exempted from submitting tax returns. The tax forms transmitted to INSEE contain no accounting data for these units: only the turnover is known. These are entities affiliated to the "micro-enterprise" scheme. This category includes people who have chosen "auto-entrepreneur" status (automatically affiliated to the micro-enterprise tax category), created in 2009.

The micro-enterprise tax category can only apply to enterprises whose annual turnover does not exceed:

- a) the tax-exclusive sum of €82,000 for operators whose main business is the selling of merchandise, items, provisions and commodities to be taken away or consumed on the premises, or the provision of housing;
- b) the tax-exclusive sum of €32,900 for service providers.

In addition, the enterprises concerned are exempted from VAT.

In 2010, this population corresponded to approximately 700,000 enterprises, making turnover of approximately €7.2 billion (corresponding to an average annual turnover of approximately €10,000).

For these enterprises, therefore, only the turnover data is available. In order to extrapolate the missing accounting items, the average accounting structure (i.e. the ratio between each accounting item and the turnover) is calculated for the smallest enterprises subject to the normal category (and therefore obliged to an accounting package), and this average structure is applied to the data relating to the turnover of micro-enterprises.

All of the adjustments thus applied in ESANE to the accounting packages transmitted by the general government - either in relation to enterprises considered to have been wrongly omitted, or to enterprises subject to the micro-enterprise tax category - **raises the gross value added estimated by ESANE by approximately €40 billion per year.**

In addition, several retreatments to the structural business statistic are carried out in ESANE. The most important retreatment concerns the employee profit sharing, which is recognised in the distribution of income account in the general accounting plan. The retreatment leads to the recognition of employee profit-sharing in the profit and loss account, under compensations (in accordance with national accounting concepts). The employee profit-sharing reclassified in this way has an approximate value of €8 billion.

Name of survey: <i>Enquête annuelle de production</i> (EAP) (Annual production survey)
Link to surveys undertaken at the European level (e.g. structural business statistics): SBS - PRODCOM
Reporting units (e.g. enterprise/ local KAU/ household): LKAU
Periodicity (e.g. annual/quarterly/other- to be specified): Annual
Time of availability of results (e.g. 18 months after the end of the survey period): 6 months
Sampling frame: (e.g. name of business register used/ population census): SIRENE
Survey is compulsory or voluntary? Compulsory
Main features of survey methodology (e.g. PPS sampling/ panel of respondents/ use of a size threshold for sampling/ postal questionnaire/ telephone interview): Internet questionnaire (postal questionnaire possible)
Population size:
Sample size: 40,000.
Survey response rate:
Method used to impute for missing data:
Variable used for grossing-up to the population (e.g. turnover/ employment):
Sample coverage, as % in terms of variable used for grossing-up (e.g. sample covers 60% of employment recorded on the sampling frame):
Main variables collected: The annual production survey (EAP) has two main aims: - identify the different activities carried out by enterprises via the breakdown of their turnover into different branches, and from this, determine their principal activity (APE); - provide information allowing for the production of precise data on industrial output, both in response to the requirements of the European Prodcom Regulation, and to satisfy the needs of national users - especially the needs of professional organisations. PRODCOM is the abbreviation of industrial production (PROD) surveys defined at the Community (COM) level and governed by regulation (EEC) no. 3924/91 of the Council (19 December 1991).
Further adjustments made to the survey data:

Name of survey: <i>Enquête sectorielle annuelle</i> (ESA) (Annual sectoral survey)
Link to surveys undertaken at the European level (e.g. structural business statistics): SBS
Reporting units (e.g. enterprise/ local KAU/ household): LKAU
Periodicity (e.g. annual/quarterly/other- to be specified): Annual
Time of availability of results (e.g. 18 months after the end of the survey period): 6 months
Sampling frame: (e.g. name of business register used/ population census): SIRENE
Survey is compulsory or voluntary? Compulsory
Main features of survey methodology (e.g. PPS sampling/ panel of respondents/ use of a size threshold for sampling/ postal questionnaire/ telephone interview): Postal or Internet
Population size:
Sample size: 40,000.

Survey response rate:
Method used to impute for missing data:
Variable used for grossing-up to the population (e.g. turnover/ employment):
Sample coverage, as % in terms of variable used for grossing-up (e.g. sample covers 60% of employment recorded on the sampling frame):
Main variables collected: The Annual Sectoral Survey (ESA) aims to identify the different activities carried out by enterprises, via the breakdown of their turnover into branches (sectoral classification), allowing for a better evaluation of their principal activity (APE).  The ESA also allows for the observation of legal restructuring operations that affect the running of the enterprises. It supplements the information provided by the tax forms with regard to investments - especially its intangible component - and describes the main characteristics of each economic sector.
Further adjustments made to the survey data:

### Surveys in the social services field

These surveys, conducted every four years by DREES (Directorate for Research, Analysis, Evaluation and Statistics, Ministries for Health and Social Affairs), cover all active establishments in the field of social services, identified in the FINESS register listing establishments that have been granted an authorisation.

The register reveals the number of places in each establishment. The surveys can be used to determine the actual occupancy rate and therefore to estimate the population actually cared for, a major input for the estimation of output.

DREES carries out a survey on old people's homes, a survey of establishments caring for disabled persons (children or adults) and a survey of establishments specialising in the provision of support for persons with social difficulties (children or adults).

Name of survey: <i>Enquête sur les établissements d'hébergement de personnes âgées</i> (EHPA) (Survey of nursing homes for the elderly) 2015
Link to surveys undertaken at the European level (e.g. structural business statistics): None
Reporting units (e.g. enterprise/ local KAU/ household): nursing homes for elderly people
Periodicity (e.g. annual/quarterly/other- to be specified): every 4 years
Time of availability of results (e.g. 18 months after the end of the survey period): 12 months
Sampling frame: (e.g. name of business register used/ population census): Administrative file containing all active nursing homes
Survey is compulsory or voluntary? Compulsory
Main features of survey methodology (e.g. PPS sampling/ panel of respondents/ use of a size threshold for sampling/ postal questionnaire/ telephone interview): Postal or Internet
Population size:
Sample size: 10,500.
Survey response rate:

Method used to impute for missing data:
Variable used for grossing-up to the population (e.g. turnover/ employment):
Sample coverage, as % in terms of variable used for grossing-up (e.g. sample covers 60% of employment recorded on the sampling frame): Exhaustive
Main variables collected: <b>Structures</b> The EHPA survey specifies the general characteristics of the establishments and their activity: number of places, number of people present on 31 December of the financial year, number of arrivals and departures during the year, distribution of residents per level of dependency, temporary accommodation, day care, night care. It also covers more regulatory aspects: signature of a tripartite agreement, social welfare authorisation and the prices of accommodation, treatments and dependency. <b>Personnel</b> The survey provides information about the main post held, gender, age and full-time equivalent of each person. <b>Residents</b> The survey reveals the age, gender, date of entry, previous housing and dependency level, broken down according to the discriminating variables of the AGGIR (Autonomy, gerontology and iso-resource groups). For residents that have left during the year, the survey also provides information about the departure date, entry date, age and destination after departure. <b>Building and facilities</b> The survey describes all of the facilities in the bedrooms and communal areas. <b>Pathologies</b> The survey provides a description of all pathologies of a sample of residents, itself derived from a sample of establishments.
Further adjustments made to the survey data:

### National housing survey

Every six or seven years, INSEE conducts a survey of several tens of thousands of dwellings. This survey reveals the characteristics of housing and its occupants, and the rental fees when the housing is rented. The data are used to evaluate both the actual and imputed rents, on the basis of a stratification allowing for the separation of different types of housing into specific strata, such as social housing.

Name of survey: <i>Enquête Logement</i> (Housing Survey) 2013
Link to surveys undertaken at the European level (e.g. structural business statistics): None
Reporting units (e.g. enterprise/ local KAU/ household): Households
Periodicity (e.g. annual/quarterly/other- to be specified): every 7 years
Time of availability of results (e.g. 18 months after the end of the survey period): 24 months
Sampling frame: (e.g. name of business register used/ population census): Census
Survey is compulsory or voluntary? Compulsory
Main features of survey methodology (e.g. PPS sampling/ panel of respondents/ use of a size threshold for sampling/ postal questionnaire/ telephone interview): Postal or

Internet
Population size:
Sample size: 54,000.
Survey response rate:
Method used to impute for missing data:
Variable used for grossing-up to the population (e.g. turnover/ employment):
Sample coverage, as % in terms of variable used for grossing-up (e.g. sample covers 60% of employment recorded on the sampling frame):
Main variables collected: The Housing survey sets out to describe the housing conditions of households and their expenditure on housing. The survey supplements the information given by censuses, which do not contain financial data: rents, charges, financing plans and incomes. It also includes a more detailed description of the quality of housing for households. It has multiple uses: structural framework data, study of precise sub-populations and modelling of behaviours, semi-economic analyses or pseudo panel analyses based on chronological comparisons of successive surveys.
Further adjustments made to the survey data:

### The arrangements for surveys on R&D

The statistical office of the French Ministry for Higher Education and Research produces annual surveys of the resources committed to R&D. These surveys cover both private enterprises and public bodies. They aim to identify internal and external expenditure, the numbers of researchers and research support staff, and the financing received.

Name of survey: <i>Enquête annuelle sur les moyens consacrés à la recherche et au développement dans les entreprises</i> (Annual survey of resources committed to research and development in enterprises)
Link to surveys undertaken at the European level (e.g. structural business statistics): European regulation
Reporting units (e.g. enterprise/ local KAU/ household): Enterprises
Periodicity (e.g. annual/quarterly/other- to be specified): Annual
Time of availability of results (e.g. 18 months after the end of the survey period): 6 months
Sampling frame: (e.g. name of business register used/ population census): SIRENE
Survey is compulsory or voluntary? Compulsory
Main features of survey methodology (e.g. PPS sampling/ panel of respondents/ use of a size threshold for sampling/ postal questionnaire/ telephone interview): Internet
Population size:
Sample size: 11,000.
Survey response rate:
Method used to impute for missing data:
Variable used for grossing-up to the population (e.g. turnover/ employment):
Sample coverage, as % in terms of variable used for grossing-up (e.g. sample covers 60% of employment recorded on the sampling frame):
Main variables collected: The aim of the survey of resources committed to research and development is to

ascertain the resources devoted to research by enterprises in terms of domestic and foreign expenditure, numbers of researchers and research support staff, and funding received. Every two years, a mandatory section on researchers/engineers is associated with it in order to answer the optional question on the number of researchers. The survey is associated with Regulation no. 995/2012 of the Commission of 26 October 2012 implementing decision no. 1608/2003/EC of the European Parliament and Council relating to the production and development of Community statistics on science and technology.
Further adjustments made to the survey data:

Name of survey: <i>Enquête annuelle sur les moyens consacrés à la recherche et au développement dans les associations et les groupements d'intérêt public</i> (Annual survey of resources committed to research and development in associations and public interest groups).
Link to surveys undertaken at the European level (e.g. structural business statistics): European regulation
Reporting units (e.g. enterprise/ local KAU/ household): enterprises
Periodicity (e.g. annual/quarterly/other- to be specified): Annual
Time of availability of results (e.g. 18 months after the end of the survey period): 6 months
Sampling frame: (e.g. name of business register used/ population census): Administrative files
Survey is compulsory or voluntary? Compulsory
Main features of survey methodology (e.g. PPS sampling/ panel of respondents/ use of a size threshold for sampling/ postal questionnaire/ telephone interview): Internet
Population size:
Sample size: 320.
Survey response rate:
Method used to impute for missing data:
Variable used for grossing-up to the population (e.g. turnover/ employment):
Sample coverage, as % in terms of variable used for grossing-up (e.g. sample covers 60% of employment recorded on the sampling frame):
Main variables collected: Ascertain the resources committed to research by associations and public interest groups in terms of domestic and foreign spending, numbers of researchers, research support staff and funding received for this research expenditure.
Further adjustments made to the survey data:

## **CHAPTER 2 THE REVISIONS POLICY AND THE TIMETABLE FOR REVISIONING AND FINALISING THE ESTIMATES; MAJOR REVISIONS SINCE THE LAST VERSION OF THE GNI INVENTORY**

### **2.1 The revisions policy and the timetable for revising and finalising the estimates**

- 1) Provide an overview table for current revisions linking the revision timetable to the main data sources available and used at the consecutive revision dates. Describe the contents of the table.

#### **A – Annual accounts and quarterly accounts**

INSEE produces two systems of accounts: quarterly accounts and annual accounts. Quarterly accounts are compiled from indicators, by econometric calibration on past annual accounts, while the annual accounts assess quantities directly, seeking coherence across all sources.

However, the provisional annual account is produced jointly from the two systems, with the “goods and services approach” using the quarterly accounts system with elements taken from the annual accounts, and the “income approach” and the compilation of the sector accounts being taken from the annual accounts system. However, concerning non-financial corporations (NFC) and transactions by unincorporated enterprises (UE), the production and operating accounts are constructed from elements of the goods and services approach in the quarterly accounts.

With this double system of accounts INSEE currently formally produces six GDP evaluations for year n:

- at the end of January of n+1, with the “First Estimates” for Q4 of year n (sum of the four quarters of year n);
- at the end of February of n+1, with the “Second Estimates” for Q4 of year n;
- around 25 March of n+1, with the “Detailed Figures” for Q4 of year n;
- at the end of May of n+1, in the form of the provisional annual account; this account and the revised accounts for the two preceding years are incorporated into the quarterly accounts system for the “Second Estimates” for Q1 of year n+1;
- at the end of May n+2, in the form of the semi-definitive annual account;
- at the end of May n+3, in the form of the definitive annual account.

In practice, the first three estimates are based only on work done on the quarterly accounts, before the annual accounts are compiled. As a result, these estimates are all very similar. It is therefore more accurate to consider that the double system of accounts in fact means that INSEE produces four successive assessments for year n.

**Table 2.1.a – Diagram showing the sequence of accounts, link between quarterly and annual accounts, publication**

Années	n			n+1									
	10	11	12	01	02	03	04	05	06	07	08	09	etc.
Publication des comptes trimestriels	(T+30) 1ère estim. Q3(n)	(T+60) 2èm estim. Q3(n)	(T+85) Résul. détail. Q3(n)	(T+30) 1ère estim. Q4(n)	(T+60) 2èm estim. Q4(n)	(T+85) Résul. détail. Q4(n)	(T+30) 1ère estim. Q1(n+1)	(T+60) 2èm estim. Q1(n+1)	(T+85) Résul. détail. Q1(n+1)	(T+30) 1ère estim. Q2(n+1)	(T+60) 2èm estim. Q2(n+1)	(T+85) Résul. détail. Q2(n+1)	etc.
Élaboration des comptes annuels	Compte définitif n-2			Compte semi-définitif n-1			Compte provisoire n			etc.			
Publication des comptes annuels	une campagne de comptes annuels						provisoire n semi-définitif n-1 définitif n-2						
Recalage des comptes trimestriels	années n, n-1, n-2												

The definitive annual accounts for n-2, semi-definitive accounts for n-1 and provisional accounts for n are prepared in sequence (which constitutes an “accounting campaign”) and they are disseminated simultaneously with the publication of the provisional account at the end of May n+1, and not as and when they are produced. The last two years published, n and n-1, may be revised.

## B - Revisions of quarterly accounts

**Table 2.1.b – Calendar of quarterly accounts**

Q+30 days *	Q+60 days *	Q+85 days *
<b>First estimate</b>	<b>Second estimate</b>	<b>Detailed figures</b>
Description of quarterly growth in gross domestic product (GDP) and transactions on goods and services (output, value added, consumption, investment, foreign trade, changes in inventories, etc.). Sector accounts at level A17.	- Update of estimate at Q+30  - Calculation for Eurostat of some aggregates not available at Q+30 days (employment, working time, wages)	- Update of estimate at Q+60  - detail of agent accounts (households, enterprises, general government, etc.)

\* number of days after the end of the published quarter Q

From January 2016, three estimates of the quarterly national accounts are published for each quarter:

- The “**first estimate**” is issued less than 30 days after the end of the quarter. It covers quarterly growth in gross domestic product (GDP) and transactions on goods and services (output, value added, consumption, investment, foreign trade, changes in inventories, etc.). This is an advance estimate: some indicators are not available for the entire quarter. Econometric techniques are used to forecast missing information.

- The “**second estimate**”, issued less than 60 days after the end of the quarter, updates the first estimate, incorporating indicators that have become available; in particular, foreign trade by geographic area and use of funds accounts are added. This may result in revisions to growth and its composition, especially the breakdown between foreign trade and changes in inventories.

- The third publication, the “**detailed figures**”, is issued less than 85 days after the end of the quarter. It updates the second estimate for GDP quarterly growth and goods and services transactions. It also provides a first estimate for agent accounts (households, enterprises, general government, etc.).

In addition to quarterly and annual growth rates, these publications include the “growth overhang” of the different aggregates for the current year. The growth overhang of a variable for year N corresponds to the growth rate that would be obtained for the variable between year N-1 and year N if the variable remained at the level of the last known quarter until the end of year N.

Until December 2015, the procedure for disseminating quarterly accounts was similar to that described above, but with only two publications and not three as we have today. The first publication was issued at Q+45 days at the latest and was called “First results” while the second publication was issued at Q+85 days and was called “Detailed figures”. This was in all respects the same as the publication with the same name under the dissemination system in place since January 2016. Accounts compiled at Q+60 days were not published.

As the first estimate is now produced much earlier than before, it is based more on extrapolations. This increased use of extrapolations will now mean that more revisions will be required between the first and second estimates.

#### Publications for dissemination

Each estimate results in:

- the publication of the main indicators in the *Informations rapides* collection, available on the INSEE website and in paper format; a double page gives the main aggregates with comments; this brief publication is accompanied by supplementary tables, 8 pages of tables for the first and second estimates, around twenty for the detailed results; a brief analysis of the revisions accompanies these two publications.

The published data are seasonally- and working day-adjusted (SA-WDA), so that changes from one quarter to another reflect only cyclical events; they cover the last three years; volumes are chain-linked to the previous year’s price; changes are proposed in relation to the previous quarter (over the last four quarters) or the previous year for annual figures (annual change for completed years or growth hangover for current years).

Content of the publication (for more details go to [Principaux indicateurs-Tableaux complémentaires-Note de révision](#)):

*Informations rapides* (first and second estimates and detailed figures):

- Gross domestic product and its components (contributions to GDP growth and changes in volume);
- Margin rates of non-financial corporations, household disposable gross income, purchasing power of household disposable gross income;
- Main components of output, consumption and gross fixed capital formation;
- Household and non-financial corporation ratios;

- General government expenditure, revenues and net borrowing

*Supplementary tables* for the first and second estimates (thirteen tables); quarterly and annual changes cover the last three years:

- Supply and use balances for goods and services in volume (by level and by change), in value (by level and by change) and in price (by change), supply and use balances for manufactured goods in volume (by level and by change) and in price (by change), supply and use balances for goods in volume (by change), supply and use balances for construction in volume (by change), supply and use balances for mainly market services in volume (by change);

- Output and value added, by sector at level A17 of the classification, changes in volumes and prices.

*Supplementary tables* of the detailed figures (thirty-nine tables); these include the thirteen supplementary tables from the first and second estimates, to which are added, always with quarterly and annual changes over the last three years:

- Household consumption expenditure, imports, exports and growth fixed capital formation for non-financial enterprises, detailed by product at level A17 of the classification, with changes in volumes and prices;
- Inventory changes at level A17, as a contribution to GDP growth and by value;
- Breakdown of GDP by the “income” approach and distribution of value added by institutional sector, by value;
- For non-financial enterprises: details of production costs (including manufacturing branches), breakdown of margin rates (including companies), details of company operating account and income account, by change; main ratios of company accounts;
- For employment, by branch of activity at level A17, by change: actual employee working time, hourly volume of work by employees, hourly productivity, payroll; payroll all branches combined by institutional sector;
- For households, by change: income account and purchasing power; ratios;
- General government accounts at current prices, level and changes
  - a more comprehensive and detailed set of tables, dating back to 1949, is available on the INSEE website;
  - The topic “National accounts – Public finances” on the INSEE website is divided into five sub-topics:
    - GDP and main economic aggregates
    - Income, purchasing power and household consumption
    - Public finances
    - Non-financial corporations and unincorporated enterprises
    - Quarterly national accounts
    - Annual national accounts

Description of the topic “Quarterly accounts” (for further details, see [Insee-Quarterly national accounts](#)):

Whether the tables are in values or volumes, when it is meaningful they are broken down by level, by changes and by contributions.

## **I – Goods and services**

Gross domestic product (GDP) and its components

Supply and use balance - volumes chain-linked to the previous year's prices

Supply and use balance - values at current prices

Manufactured products

Supply and use balance - volumes chain-linked to the previous year's prices

Supply and use balance - values at current prices

Goods

Supply and use balance - volumes chain-linked to the previous year's prices

Supply and use balance - values at current prices

Construction

Supply and use balance - volumes chain-linked to the previous year's prices

Supply and use balance - values at current prices

Mainly market services

Supply and use balance - volumes chain-linked to the previous year's prices

Supply and use balance - values at current prices

Household consumption expenditure

By product - volumes chain-linked to the previous year's prices

By product - values at current prices

GFCF of all institutional sectors

By product - volumes chain-linked to the previous year's prices

By product - values at current prices

GFCF of non-financial enterprises (NFE)

By product - volumes chain-linked to the previous year's prices

By product - values at current prices

Foreign Trade

Exports

By product - volumes chain-linked to the previous year's prices

By product - values at current prices

By zone - volumes chain-linked to the previous year's prices

By zone - values at current prices

Imports

By product - volumes chain-linked to the previous year's prices

By product - values at current prices

By zone - volumes chain-linked to the previous year's prices

By zone - values at current prices

Summary of series of products

Volumes chain-linked to the previous year's prices

Values at current prices

## **II – Branches**

Value Added

By branch - volumes chain-linked to the previous year's prices

By branch - values at current prices

Production

By branch - volumes chain-linked to the previous year's prices

By branch – values at current prices  
Employment  
By branch – individuals employed  
By branch - full-time equivalent employment

Average wage per capita  
By branch - AWPC in euros  
Production costs of manufacturing branches  
Values at current prices  
Summary of series of branches  
Production and operating accounts by value  
Production accounts at chain-linked volumes, use of funds accounts and by duration

### **III – Institutional sectors**

All tables in this section are in values at current prices  
Gross domestic product and production factors compensation  
Production costs of non-financial enterprises  
Household income accounts  
Household purchasing power and account ratios  
Household pre-engaged consumption expenditure  
Breakdown of non-financial enterprises' margin rate  
Breakdown of non-financial corporations' margin rate  
General government expenditure, revenues and net borrowing  
Summary of agents' account series: detailed agents' accounts  
Quarterly debt: general government debt according to Maastricht, distribution by sub-sector and by instrument

There are also some quarterly tables available in other sections of “National accounts – Public finances” on the website; these are not given here.

- updated macro-economic database (BDM) is available on the INSEE website, where results are shown in the form of time series.

About 2,850 series were deposited in the BDM when the detailed figures were published (1,170 for the first estimates and 2,050 for the second).

They are organised as follows (for further details, see [Macro-economic database \(BDM\)](#)):

Gross domestic product balance  
Gross Domestic Product balance  
Gross Domestic Product and Production factors compensation at current prices  
Transactions on goods and services  
Transactions on main groups of goods and services  
Transactions on goods and services by product (Level A17) and transaction  
Branch accounts  
Production account of branches - Major groups  
Production account of branches - Level A17  
Operating account of branches – Major groups  
Operating account of branches - Level A17  
Domestic employment by branch - Major groups  
Domestic employment by branch - Level A17  
Weekly working time and volume of work by branch - Major groups  
Weekly working time and volume of work by branch - Level A17

Institutional sector accounts  
Accounting balances of institutional sectors  
Transactions of institutional sectors  
Domestic employment in institutional sectors  
Household consumption

Monthly household consumption of goods.

### Revisions

Quarterly accounts may be revised from one publication to another, due to:

- extrapolations being replaced by indicators that were not previously available; (see Table 2.1.c)
- revisions to gross indicators, in the previous quarter or earlier quarters; (see table 2.1.c)
- revision of coefficients for seasonal adjustments when new data are taken into consideration or when previously published data are revised;
- revisions to models for seasonally- and working day-adjusted data;  
When seasonal adjustments are updated, quarterly data must be revised across the entire period (from 1978). However, revisions are minimal for the years with definitive annual accounts.
- once a year in May, fitting the new estimates to the annual accounts and the revision of calibration models;  
In May of year n+1, the annual accounts publish definitive accounts for year n-2, semi-definitive accounts for year n-1, and provisional accounts for year n; the quarterly accounts incorporate the new annual data when the second estimates for Q1 of year n+1 are compiled.  
The seasonally adjusted raw series in the annualised quarterly accounts are therefore fitted to the annual accounts. The only difference between an annualised quarterly account and an annual account lies in the adjustment for working days.
- changes of base. See point 2)

Table 2.1.c shows the change in availability of the main indicators used according to level of account, first estimate, second estimate or detailed results; if the indicator is not available, the aggregate is extrapolated; an available indicator may be definitive, or revisable.

**Table 2.1.c – Revision of indicators**

Main indicators used	First estimate	Second estimate	Detailed results
<b>Foreign trade</b>			
customs statistics	extrapolation	available revisable	available revisable
balance of payments	extrapolation	available revisable	available revisable
import and export price indices in industry	extrapolation	available revisable	available revisable
unit value indices of foreign trade in agricultural products	extrapolation	extrapolation	available definitive
physical foreign trade in electricity	extrapolation	available revisable	available revisable
<b>Production</b>			
industrial production index (industry excl. water, gas and electricity)	Available, revisable, for limited circulation	available definitive	available definitive
agricultural and transport statistics	extrapolation	extrapolation	available definitive
turnover indices (from VAT returns)	extrapolation	available revisable	available revisable
production price index in industry and certain services	extrapolation	available definitive	available definitive
<b>Gross fixed capital formation</b>			
vehicle registrations	available revisable	available revisable	available revisable
turnover indices (from VAT returns) in industry, wholesale trade and services	extrapolation	available revisable	available revisable
quarterly housing production index (Department of Observation and Statistics – SoeS)	extrapolation	available revisable	available definitive
non-residential building starts, statistics from the National federation of civil engineering (FNTF)	extrapolation	available revisable	available revisable
<b>Household consumption</b>			
trade surveys by the Banque de France	available definitive	available definitive	available definitive
statistics from public bodies (ARCEP, CNAMTS, etc.)	extrapolation	extrapolation	available revisable
statistics from professional bodies (e.g. French fashion institute and CPDP)	available revisable	available definitive	available definitive
panellist (GfK)	extrapolation	available definitive	available definitive
turnover indices (from VAT returns)	extrapolation	available revisable	available revisable

consumer price index	available definitive	available definitive	available definitive
Household consumption of goods is published monthly (see short-term indicators on the INSEE website)	available definitive	available definitive	available definitive
<b>Taxes</b>			
monthly collection of State revenues (Directorate-General of Public Finances DGFIP)	none	available definitive	available definitive
local tax issue statement (Directorate-General of Public Finances DGFIP)	none	available definitive	available definitive
data from Social Security accounting body (ACOSS)	none	available definitive	available definitive
<b>Employment, wages, working time</b>			
quarterly statistics on payroll employment (DARES-INSEE)	extrapolation	available revisable	available definitive
ACEMO survey (Labour activity and employment conditions) by DARES (Ministry for Employment, Professional Training and Social Dialogue)	extrapolation	available revisable	available definitive
ACOSS	extrapolation	available revisable	available definitive
DGFIP	extrapolation	available revisable	available definitive
statistics on sick leave, maternity leave and accidents at work (National health insurance fund)	extrapolation	available revisable	available definitive
<b>Social contributions</b>			
ACOSS (contributions to Social Security general scheme)	extrapolation	available revisable	available definitive
statistics from national health insurance, old-age insurance and family allowance funds	extrapolation	available definitive	available definitive
Pôle-Emploi (unemployment benefits)	extrapolation	available definitive	available definitive
other social protection bodies	extrapolation	extrapolation	available revisable
DGFIP	extrapolation	available revisable	available definitive

## C - Revisions to annual accounts

Table 2.1.d – Timetable of three successive compilations of an annual account (year n)

	n+4 months	n+13 months	n+22 months
<b>Preparation</b>	<b>Provisional account for year n</b>	<b>Semi-definitive account for year n</b>	<b>Definitive account for year n</b>
<b>Publication</b>	end* of May of year n+1 (i.e. at n+5 months), - <b>provisional accounts for year n</b> - semi-definitive for year n-1 - definitive for year n-2	end* of May of year n+2, (i.e. at n+17 months), - provisional accounts for year n+1 - <b>semi-definitive</b> for year n - definitive for year n-1	end* of May of year n+3, (i.e. at n+27 months), - provisional accounts for year n+2 - semi-definitive for year n+1 - <b>definitive for year n</b>
<b>Link with quarterly accounts</b>	Preparation jointly with quarterly accounts, at Q1+60d in year n+1 Calibration-fitting of quarterly accounts.		

\* mid-May until 2015, end of May from 2016

The annual accounts for year n are produced three times, in line with the availability of the sources. The provisional account is prepared in spring of year n+1, the semi-definitive account at the beginning of n+2, and finally the definitive account in autumn of n+2.

Thus the definitive n-2, semi-definitive n-1 and provisional n annual accounts are prepared in sequence, between autumn of year n and spring of year n+1. They are disseminated simultaneously, however, when the provisional account is issued at the end of May n+1, and not gradually as they are compiled. (See Table 2.1.a).

A general government account is prepared ahead of the provisional and semi-definitive national accounts, as two notifications have to be made in March and September to the European Commission, in the framework of the excessive deficit procedure (EDP). From March, a pre-provisional account is drawn up. This account is revised very little for the provisional accounts for the whole economy; a few data items, such as the FISIM, are not available in March, and are estimated for the purposes of the notification. Similarly, a semi-definitive advance account (or revised provisional account) is prepared in September for the notification. See § Revisions.

### Products for dissemination

Over 650 Excel tables are available to the general public on the INSEE website, and for almost half of these an HTML version is provided. Over 200 of these tables are also provided in English. Around 50% of the tables can be accessed from the date of publication of the accounts; and following the addition of the non-financial balance sheets, which are prepared a little later, and the overall economic tables (input and output tables) for the last three years, 83% are up to date at the beginning of July. At this stage, only the financial accounts and the general government spending by function are missing, and these are published in the autumn. The tables can be provided by value at current prices, by volume at the previous year's price and chain-linked to the previous year's prices, by change and by price.

Organisation of annual accounts on the website (for further details, see [Insee-Annual national accounts](#)).

The topic “National accounts – Public finances” on the INSEE website is divided into six sub-topics:

- GDP and main economic aggregates (26 Excel tables)
- Income, purchasing power and household consumption (41 Excel tables)
- Public finances (29 Excel tables)
- Non-financial corporations and unincorporated enterprises (4 Excel tables)
- Quarterly national accounts (see § B)
- Annual national accounts (554 tables)

Unlike the data for the quarterly accounts, the annual tables that appear in the first four sub-topics are not extracted from the “Annual national accounts” sub-topic; for this reason they are described below. However, due to the large number of tables published, it is not possible to provide an exhaustive list here, but only the following brief description.

The first sub-topic covers gross domestic product (GDP) and the main economic aggregates; it defines GDP and its components using three calculation approaches, the “expenditure approach”, the “income approach” and the “production approach”; it describes the components of the expenditure approach, and the distribution of value added between payroll, taxes and subsidies and gross operating result; value added, total employment, gross and net fixed capital, consumption of fixed capital, net lending or borrowing are given by institutional sector; also presented are the main aggregates and transactions with the rest of the world, the gross national income transmitted to Eurostat, as well as GDP per inhabitant.

The second section deals with disposable income and household purchasing power (gross or adjustable, by person, household, or consumption unit, savings ratio); household consumption is presented by product, durability, function; household accounts by categories are also available.

Public finances are a specific topic. Debt according to the Maastricht definition is broken down by sub-sector and by financial instrument; different tables shed light on the public deficit (e.g. transition from deficit to debt variation); general government expenditure is given by sub-sector and by function; this section also includes taxes and social contributions and the different categories of tax at a very detailed level;

“Annual national accounts” sub-topic (1 table on the introductory page)

- Resources and uses of goods and services (110 Excel tables)
- Homogeneous branch activity (143 Excel tables)
- Institutional sectors (16 Excel tables)
- Financial and non-financial assets and liabilities (90 Excel tables)
- Input and output tables and integrated economic accounts (178 Excel tables)
- Specialised accounts (16 Excel tables covering agriculture).

A specific section gives access to a very detailed set of results on resources and uses of goods and services (output and intermediate consumption, household consumption, gross fixed capital formation, changes in inventories and foreign trade).

Branch activity, output, intermediate consumption, value added, compensation and employment are broken down according to two levels of the classification of activities, i.e. into 38 items and 88 items. Gross fixed capital formation and consumption of fixed capital are broken down into 38 branches. Fixed capital is split into gross and net capital, by assets and by branch (38 items).

The accounts of institutional sectors and their sub-sectors, non-financial corporations and unincorporated enterprises, financial corporations, general government, households and, lastly, non-profit institutions serving households, are described in full.

Financial accounts are organised into well-defined institutional sub-sectors. Balance sheets and changes in balance sheets, financial and non-financial, are given by institutional sector and by assets.

The input and output tables and integrated economic accounts (which include product supply and use balances, the table of intermediate input, the production and operating accounts of the branches, at levels A17 and A38 of the classification of activities and products) are published by year from 1949. The symmetrical input-output table is published annually with the definitive version of the accounts, since the 2010 account.

Accounts relating to the “Agriculture” branch, which are prepared differently from the national accounts, are included under the heading “Specialised accounts”.

All the published data are available for the three years of the current campaign, n-2, n-1 and n, but data are also available for past years, with the longest series dating back to 1949 (1978 for balance sheets). These are in the form of Excel and HTML files. As for the quarterly accounts, an explanatory note on the revisions is also provided for each publication; revisions apply to the accounts for years n-2 and n-1.

Alongside dissemination of the accounts on the INSEE website, various four-page analyses are published in the Insee Première collection: usually three issues in May are devoted to the publication of the annual accounts, a general four-page document on the national accounts, a second document on general government accounts, and a third on household consumption. Later, towards the end of June, commentaries and fact sheets are produced on the results of the annual accounts in the annual edition of The French economy, part of the Insee Références collection. In July, an issue of Insee Première is published to accompany the publication of the balance sheet.

Prior to dissemination in May, the first results of the general government accounts, notified to the European Commission in the context of the excessive deficit procedure at the end of March, appear in a specialised publication in the *Informations Rapides* collection, to complement the quarterly issue on the Maastricht debt. To retain the consistency of all the data published in May of the previous year on the INSEE website, only a few key tables are updated. The publication is in fact fully updated two months later when the provisional annual accounts are disseminated.

### Revisions

Revisions to the annual accounts are made on the one hand by using new sources as they become available, and on the other by applying adjustments between these different sources to ensure their consistency.

The following paragraphs describe revisions to accounts in value, by institutional sector. In addition, for accounts in volume there are updates to price indices.

#### *Revisions to the accounts of non-financial enterprises (S11)*

For the provisional accounts, transactions in goods and services and transactions in the production and operating accounts of non-financial enterprises (corporations and unincorporated enterprises) are measured together with the quarterly accounts, based on short-term indicators.

For the semi-definitive and definitive annual accounts, annual accounting sources on enterprises are available in the form of corporation tax returns provided by the Directorate-

General of Public Finances, DGFIP, complemented by annual business surveys; consistency between the two sources is ensured by the ESANE system (see Chapter 10).

The use of ESANE business data instead of short-term indicators is the main source of revisions to the semi-definitive and definitive accounts. With ESANE, annual corporate turnover can be expressed in terms of branches and products. Estimates of transactions on goods and services are based on the construction of a “supply and use balance” for each product, incorporating this new measure of production.

When the semi-definitive accounts are prepared, not all the accounting variables are applied and a few tax returns are missing, although the main ones have been incorporated into the ESANE system. When the definitive data are delivered, all the variables are available and the supplementary tax forms are included. In addition, in order to prepare the definitive accounts, those responsible for the supply and use balances and for the accounts of non-financial corporations evaluate the ESANE data; any errors that are detected, depending on their importance, can either be corrected in the ESANE database, or adjusted further downstream, to be included in the national accounts. Supplementary tax forms, full exploitation of the variables and the correction of errors may require a revision to be made between the source data provided for a definitive account, and the semi-definitive data. However, this revision has less impact on the accounts than the first revision, during the transition from the short-term indicators used for the provisional accounts to the accounting data in business statistics.

#### *Revisions to the accounts of banks and insurance companies (S12)*

##### 1. Accounts of insurance companies

The provisional accounts for the insurance sector (S128) are produced from partial data provided by the FFSA (French federation of insurance companies) as the accounting data for insurance companies are not available in spring n+1 when the accounts for year n are compiled. Many items in the sector S128 accounts are therefore estimated from indicators: this is particularly the case for output, intermediate consumption, wages and property income. The ACPR (Prudential supervisory and resolution authority) and the DREES (Directorate for Research, Analysis, Evaluation and Statistics, Ministries for Health and Social Affairs) provide insurance companies’ accounting statements for year n in the autumn of year n+1, when the semi-definitive accounts are compiled. Thus major revisions may be necessary between the provisional and the semi-definitive accounts.

These data are not revised for the definitive accounts which are therefore very similar to the semi-definitive accounts.

##### 2. Accounts of banks

Banks submit their accounting data to the Banque de France via SURFI (unified financial reporting system) by March n+1 (accounts for year n), hence these data can be used when the provisional accounts are compiled. For the most part, these data require little adjustment. The accounts may be modified, however, when a bank is late in submitting its data, or when there are modifications to private accounts.

In addition, some establishments, such as those managing investment funds and securitisation funds (sectors S123, S124, S125), do not have the same reporting obligations for their accounting statements; their data are in fact only available in time for the semi-definitive accounts and their provisional data are based on estimates.

### *Revisions to the general government accounts (SI3).*

The general government accounts are compiled by the public finance offices FIPU1 (summary of public finances) and FIPU2 (forecasting corporate taxes and social contributions) of the Treasury (DGTrésor), from data supplied by the Directorate-General of Public Finances (DGFIP).

When the public financial data are notified to the European Commission in March and the provisional accounts are produced, some data are estimated. However, the semi-definitive version of the general government accounts is very close to the definitive version as it is compiled entirely on the basis of accounting documents.

### Description of revisions by sub-sector.

#### 1. Central government

For the notification at the end of March and the provisional accounts, the State account is known in full and is compiled based on data on the definitive execution of the budget. This is also the case for around forty of the 700 most important miscellaneous central government bodies (ODACs), whose accounts are prepared in accordance with an accounting procedure. The provisional accounts (in May) require very little revision after the pre-provisional accounts prepared for the March notification. Only a few pieces of information, from FISIM for example, have become available in the meantime.

For subsequent versions of the accounts, and especially the semi-definitive accounts, the DGFIP further refines the analysis of the accounting data; in particular it checks that accounting between sub-sectors is reconciled before applying transfers and the classification of transactions for the purposes of national accounting. The ODACs are completed. Revisions to tax credit estimates can have a considerable impact on the State account, especially when the semi-definitive accounts are compiled.

#### 2. Social security funds

Concerning expenditure, for the notification at the end of March and the provisional account, rates of change in benefits are available for the main schemes and these are applied to the semi-definitive account of the previous year. Forecasts are made for the other schemes. Concerning revenues, change in income received is available, and for some items changes resulting from the Treasury's macro-social hypotheses are applied.

The Treasury does not have the accounting balances available sufficiently early for them to be fully exploited when the provisional account is being prepared; they are used, however, to correct changes in the major expenditure and receipt items, and to take into account any impact on the deficit. Taxes are also based on the accounting balances.

Most of the revisions are made when the semi-definitive accounts are produced, as these include the accounting balance.

For the definitive accounts, the main revision results from the more in-depth analysis of fixed assets, and this impacts mainly on investments.

#### 3. Local government

The information used here is based on a summary of data from the accounting balances of the departments, regions, municipalities, and certain miscellaneous local administrative bodies (ODALs). The data from accounting entries are then subject to national accounting concepts. For the most part it is the DGTrésor that constructs the provisional accounts for local administration bodies which have changed in relation to the semi-definitive accounts for the

previous year (as for the social security funds), and for some transactions it has accounting information from the DGFIP.

The main revisions made when the semi-definitive accounts are being compiled are as a result of the inclusion of data that were not available when the provisional accounts were prepared. This is the case for some ODALs, public-private partnerships (PPP) or financial leasing (impact on investment).

The definitive accounts are similar to the semi-definitive accounts, as the revisions mainly relate to reclassifications of transactions during the shift to the national accounting concepts and have only a marginal impact on the deficit.

Generally speaking, the revision of tax data or subsidies affects the accounts in other institutional sectors.

#### *Revisions to household accounts (S14).*

Household accounts are compiled partly to “mirror” the other accounts. As a result, revisions here correspond to revisions in the other institutional sectors (employers) for the different components of the compensation of employees. They correspond to revisions in S13 for social benefits and S13 and S15 for social transfers in kind.

Output of dwelling services is reviewed for the semi-definitive and definitive accounts in accordance with new data from the satellite account for housing. The same is true of the outputs of agricultural and agrifood goods, which are revised according to new data from the agriculture account. Social action data (child-minders and home helps) are also revised by the DREES for the semi-definitive and definitive accounts. Payrolls paid by households as employers (domestic services) are revised by ACOSS for the semi-definitive and definitive accounts.

#### *Revisions to accounts of non-profit institutions serving households (S15).*

Compiling the accounts for non-profit institutions serving households (NPISH) is based on over sixty indicators, supplied by a large number of different bodies: Directorate for Research, Analysis, Evaluation and Statistics (DREES), Ministries for Health and Social Affairs, Family allowance fund (CAF), Family advisory service (HCF), Central Agency for Social Security Organisations (ACOSS), Directorate for the Coordination of Research, Studies and Statistics (DARES, Ministry of Labour and Employment) are the major ones. When the provisional accounts are prepared, more than a third of the indicators are available. The rest (63%) are extrapolated. Virtually all of the remaining indicators are included for the semi-definitive accounts, with a few revisions to the indicators available for the provisional accounts. There are therefore more revisions between the first two versions of the accounts than for the transition from the semi-definitive to the definitive accounts, with this impact due mainly to the updating of some indicators.

#### 2) Describe the policy for major revisions.

In the vocabulary used by the French national accounting system (CNF), the term ‘base’ refers to a fixed set of concepts, classifications and methods. Since the CNF was created in the 1950s, there have been many changes of base: 1956, 1959, 1962, 1971, 1980, 1995, 2000, 2005 and 2010. The bases are traditionally identified by the years of reference defining the series at constant prices. The early base changes gave rise to substantial revisions of the concepts used in a system that was still under construction. Base changes used to be implemented about every ten years but now the intervals are becoming shorter:

A change in base year provides the opportunity to revise the evaluations in the

accounts, by carrying out investigations to improve some of the methods, by introducing new sources, new classifications or new concepts, by correcting mistakes, and also by applying European regulations intended to harmonise the accounting framework for countries of the European Union. The aim is to refine the way the level of each aggregate is determined. For the time a base is in place, the same conceptual processes and classifications, the same statistical sources are maintained, ensuring that annual change in each aggregate is properly measured in relation to the accuracy of its level.

Without looking at the entire history of base changes, here we consider the last three.

- *Switch from Base 1995 to Base 2000*

The change from base 1995 to base 2000 included few conceptual changes, the same classifications were maintained, but there were special efforts to improve evaluation. The main conceptual change in base 2000 concerned the breakdown by user of financial intermediation services indirectly measured (FISIM), which had a considerable impact on GDP. On a smaller scale, the second change involved measuring forestry output not by tree-felling as previously, but continuously, throughout the growth of the forestry assets, in the form of work in progress. A very important methodological change in base 2000 consisted of using statistics for non-financial enterprises, organised in the framework of the Intermediate enterprise system (IES), as the basis for evaluating output (including trade margins), value added and income in the non-financial corporations and unincorporated enterprises sectors and for calculating GDP. Thus the value added calculated spontaneously in the IES, now had to be used in the adjustments applied in order to align the three approaches to GDP.

With base 2000, new statistical sources were brought in to evaluate investment in software, social action and the volume of non-market output.

Lastly, new evaluations were carried out based on a better use of available sources, especially concerning adjustment for fraud and undeclared work, interest flows and international trade in transport services. The use of data from “satellite accounts” made it possible to revise evaluations in the housing and healthcare fields.

Consistency between the “Rest of the world” account and current transactions in the balance of payments was improved.

- *Switch to base 2005*

The change to base 2005 was notable as it included some major adjustments.

Firstly, the national accounts used information from the new structural business statistics system, ESANE. The ESANE system combines administrative fiscal and social data and survey data from a sample of enterprises questioned about their activities via a specially designed questionnaire. This system replaced the unified system for business statistics (SUSE) used in base 2005. The switch to ESANE led to changes in 2008 in some values, notably the level of output per branch of activity, and the valuation of changes in inventories. More indirectly, the new business statistics led to a review of levels of household consumption or GFCF.

The change in base enabled accounts to be fitted to some sources that had been modified since base 2000 had been applied, following revisions to series or changes in method. This refitting concerned in particular data from the satellite account for housing, customs and the balance of payments.

Some new evaluations and methodological changes specific to the national accounts resulted in a review of the level of certain aggregates. This was the case, for example, for evaluations of the account for non-profit institutions serving households (NPISH), for the re-estimate of undeclared activity or VAT rates, and also for measuring financial intermediation services indirectly measured (FISIM).

Lastly, when base 2005 was introduced, the national accounts adopted the new French classification of activities and products, NAF Rev. 2, 2008. Although the change was barely perceptible at the most aggregated levels, this switch nevertheless overhauled the distribution of branches of activity and products within the economy.

- Switch to base 2010

The switch to base 2010 involved the implementation of ESA 2010, the European regulation to harmonise the preparation of national accounts within the European Union. The impacts of the application of ESA 2010 are described in section 2.1. In addition to the changes recommended by the new European regulations, there were also many improvements in methodology specific to French accounts.

#### *Changes resulting from ESA 2010*

With ESA 2010, the scope of fixed assets was extended to include in particular the output of R&D activity, databases and military weapons systems (vehicles, submarines, tanks, ballistic missiles with a highly destructive capability considered to be a permanent deterrent, etc.). The corresponding expenditure by enterprises and general government (acquisition of military material, purchase or own-account production of R&D databases or services) is now considered as GFCF for accounting purposes rather than intermediate consumption.

For own final use by market producers, ESA 2010 also recommended adding to production payment for the fixed capital used, when this production is evaluated by the sum of production costs.

Concerning the treatment of insurance companies, ESA 2010 introduced two major innovations. The activity of reinsurance companies, which had previously been consolidated with that of direct insurers, was now considered separately. In addition, the measurement of the production of insurance services was changed. Henceforth this was based on expected pay-outs instead of compensation actually paid. Thus production, which corresponds to the margin generated by insurers, is calculated by subtracting every year the expected claims from the premiums collected and income derived from investing technical provisions. Financial corporations now include all holdings in a new specific institutional sub-sector, whereas previously they were partly classified with non-financial corporations.

Another important conceptual change, which is in line with the 6th edition of the balance of payments manual, covers foreign trade in goods where the description is now based not only on Customs authorities observing physical flows at the borders, but also on the notion of transfer of ownership. The way custom work abroad and merchanting are dealt with has therefore been changed.

Lastly, several of the ESA 2010 provisions affect the general government account, especially the new system for dealing with cash payments that public-sector firms make into it when their commitments to employees regarding pensions, and tax credits, are transferred.

Several cash payments have been made in France since 1997 (France-Telecom, EDF-GDF and La Poste payments). Previously, these payments were all recorded as government

revenue in the year the payment was made, thus improving the general government deficit for that year; they are now considered as an advance for the payment of pensions in the future, and their recording as government income is staggered over the pension payment period.

Payable tax credits used to be recorded as lesser tax revenue; they are now all recorded as expenditure (whether the taxpayer benefits in the form of a tax refund by the tax authorities or a tax reduction). In addition, they are now all recorded when the beneficiary's claim is recognised by the authorities, whenever the payment is in fact made.

The scope of general government was modified slightly in ESA 2010 by the inclusion of the cost of capital in the evaluation of production costs. Only those units for which the ratio of market receipts in the total production costs is above 50% over the long term can be considered as beyond the scope of general government and raising production costs brings some units below this threshold. The quantitative impact of this modification is marginal however.

#### *Changes not linked to ESA 2010*

In addition to the ESA 2010 recommendations, the switch to base 2010 was an opportunity to make several improvements to the methodology or sources, and also had an impact on the economic aggregates.

The national accounts took into account the new business statistics estimates (ESANE). These new estimates had a direct impact on the value added of non-financial corporations, but they were also put to use in new studies: the information from ESANE on tangible GFCF of non-financial enterprises (NFE) is now part of the process of ensuring consistency of supply and demand data such as that of the GFCF in software or construction. The method for estimating GFCF for computer software, databases or construction was revised, on the basis of data produced by ESANE. Lastly, information from ESANE on retail businesses was used to estimate household final consumption.

Further studies were carried out, unrelated to ESA 2010, to improve evaluation of the insurance sector account. The shift from accounting statements sent by insurers to the insurance supervisory body (ACPR), to national accounting data was revised in depth. Accounting data were used to improve the estimation of the activity of mutual funds and provident institutions.

By using data from the housing satellite account it was possible to improve estimates of the production of rental services by households.

The foreign exchange account was also revised following the introduction of the complementary survey on international trade in services (ECEIS) by the Banque de France, which replaced declarations by banks for third party accounts in the balance of payments estimates.

Other changes were made, but with much less impact on the economic aggregates: the inclusion of Mayotte, which became France's 101st department in 2011, improvements to the estimation of the GFCF of general government by product and branch over a long period, the addition of new miscellaneous central government bodies (ODACs), revision of the method for calculating the production of software for own final use by non-financial corporations.

## 2.2 Major revisions due to the transition from ESA 1995 to ESA 2010

- 1) Provide an overview table on the impact of changes from ESA 1995 to ESA 2010 on the GNI Questionnaire for all transition items (it may use the format of Table 1 in the Manual on the Changes between ESA 95 and ESA 2010, but indicating values and not only the direction of the impact)

A summary table of revisions associated with the change in ESA in 2010 is shown below, covering the following innovations in ESA:

- (1a) R&D created by market producers
- (1b) R&D created by non-market producers
- (2) Valuation of output of goods and services for own final use
- (3a) Reinsurance
- (3b) Non-life insurance
- (4) Weapons systems in government recognised as capital assets
- (8) VAT-based third EU own resource
- (10) Central bank – allocation of output

in €M, in 2010	(1a)	(1b)	(2)	(3a)	(3b)	(4)	(8)	(10)
<b>PRODUCTION APPROACH</b>								
<b>Output of goods and services</b> (at base prices)		10 073	500	3 059	264	-3 353		
<b>Intermediate consumption</b> (at acquisition prices)	-27 701	-3 731		3 059	24	-6 637		-591
<b>Gross value added</b> (at base prices)	27 701	13 804	500	0	240	3 284		591
<b>Taxes on products</b>								
<b>Subsidies on products</b>								
<b>EXPENDITURE APPROACH</b>								
<b>Final consumption expenditure</b>		-2 055			240	-3 353		591
Household final consumption expenditure					240			591
NPISH final consumption expenditure								
General government final consumption expenditure		-2 055				-3 353		
<b>Gross capital formation</b>	27 701	15 859	500			6 637		
Gross fixed capital formation	27 701	15 859	500			6 637		
Inventory changes								
Acquisitions less disposals of valuables								
<b>Exports of goods and services</b>								
<b>Imports of goods and services</b>								
<b>INCOME APPROACH</b>								
<b>Compensation of employees</b>								
<b>Operating surplus + mixed income</b>	27 701	13 804	500		240	3 284		591
<b>Taxes on production and imports</b>								

<b>Subsidies</b>								
<b>Gross Domestic Product (ESA 95)</b>	27 701	13 804	500		240	3 284		591
<b>Compensation of employees received from the rest of the world</b>								
<b>Compensation of employees paid to the rest of the world</b>								
<b>Taxes on production and imports paid to EU institutions</b>							-2 381	
<b>Subsidies received from EU institutions</b>								
<b>Property income received from the rest of the world</b>								
<b>Property income paid to the rest of the world</b>								
<b>Gross National Income (ESA 95)</b>	27 701	13 804	500	0	240	3 284	2 381	591

- 2) For each transitional item identified as having an impact on GNI in the Manual on the Changes between ESA 95 and ESA 2010 (i.e. Transitional Items 1-11):
  - a) present an outline of the conceptual change;
  - b) provide a quantified impact on GNI;
  - c) provide a detailed description of the calculation of the transition items, including numerical evidence; this description and numerical evidence should address all elements of the impact as identified under the headings "Consequences of the change" in the above mentioned Manual.

#### 1.1.1 (1a) Research and development (R&D) created by market producers

A market entity can either purchase an R&D service from an outside entity or carry out R&D activities internally.

In the first case, the purchase of R&D, which was classified in ESA 2005 as intermediate consumption, is recorded in ESA 2010 as GFCF. As the output of the entity purchasing the service remains unchanged, revising its intermediate consumption downwards tends to increase value added.

In the second case, in 2010 R&D expenditure became part of production for own final use: this output is not sold to another unit, but is used directly by the producing unit as GFCF. This expenditure naturally covers compensation of employees working in R&D activities, but it also covers the purchase of materials, buildings, etc. In theory, the corresponding output for own final use should be equal to the sum of these expenditures plus a mark-up corresponding to the net operating surplus derived from the R&D activities. However, since analysis of the accounts of enterprises selling R&D services did not reveal a significantly positive net operating surplus, the mark-up applied for enterprises with R&D output for own final use is zero. In base 2005, this unsold production was already separate in the form of market production but did not generate value added, as it was consumed intermediately by the company itself. With ESA 2010, this market production is reclassified as production for own final use and intermediate consumption is reduced by a corresponding amount because this

output is now used as GFCF: the unit's value added is therefore increased by the amount of internal spending on R&D.

In summary, the value added of market entities is increased by an amount equal to their R&D spending, whether internal or external. The amounts recorded for this expenditure are fitted to the R&D survey by the Ministry for Higher Education and Research. This totalled €27.7 billion in 2010.

#### 1.1.2 (1b) R&D created by non-market producers

The output of non-market entities is conventionally recorded as the sum of their production costs, which include not only intermediate consumption but also compensations and consumption of fixed capital (CFC): thus R&D expenditure acquired from market units, which was recorded as intermediate consumption in ESA 1995, was already counted in the non-market production of these entities, with a corresponding collective consumption by general government. In 2010, €3.7 billion were therefore taken from general government intermediate consumption and switched to GFCF under this heading.

As was the case for market entities spending on R&D internally, ESA 2010 considers that spending by non-market entities in respect of their R&D activities constitutes output for own final use, also estimated via production costs. These units now use this production as GFCF, and not for final consumption: this represented €121 billion in 2010.

This change in allocation is not without its effect on GDP. Considering R&D expenditure as an investment amounts to considering that profits from R&D are now made freely available to the entire economy and that this free provision therefore represents an additional collective service: logically, this service is a new final consumption expenditure by general government. Technically, it is through the CFC that the new treatment of non-market R&D affects the level of GDP. Recording R&D expenditure as GFCF results in the appearance of a CFC in assets drawn for R&D, which in turn increases the non-market production of non-market entities, with a corresponding increase in collective consumption by general government.

To sum up, the value added of the non-market units is increased by an amount equal to their CFC of R&D assets: in 2010 this CFC was estimated at €13.8 billion.

The amounts deducted from GFCF in R&D for non-market producers were obtained from the R&D survey by the Ministry for Higher Education and Research, adjusted to take into account research activity by professor-researchers in universities which this survey did not cover. This survey has been conducted since the early 1960s, and was also useful in constructing the backcast series needed to calculate the CFC. The lifetime of assets derived from R&D is conventionally set at 10 years.

#### 1.1.3 (2) Evaluation of production of goods and services for own final use

According to ESA 2010, compensation from employed fixed capital must be added to production for own final use by market producers, when this production is evaluated by adding together production costs. As production for own final use is entirely invested, taking this "capital service" into account resulted in a revaluation of value added and GFCF for non-financial corporations of €0.5 billion in 2010.

Capital service per production unit for own final use was measured as the net operating surplus generated by each sector per unit of market production. It is backcast in the database of past changes in production for own final use per product.

#### 1.1.4 (3a-3b) Non-life insurance - Production of goods and services, claims paid as a result of disasters, and reinsurance

The measurement of the production of direct *non-life insurance services (3b)* changed with

the switch to ESA 2010 where expected claims replaces claims actually paid which was previously included in the calculation for production. Production is now defined as: Premiums + premium supplements (income from investing some of the premiums) - expected claims. This new system had an impact on the production of insurers (€+0.3 billion in 2010) and a corresponding impact on consumption in the institutional sectors in insurance services (notably €-0.1 billion in 2010 on the intermediate consumption of non-financial corporations and €+0.2 billion on household final consumption), and hence on gross domestic product (GDP). The scale of this change was limited and varied between positive and negative, depending on the years and the difference between the actual claim rate and the insurers' predictions.

The technique used to calculate expected payouts in France was based on that used by the United States Bureau of Economic Analysis (BEA) which carries out a smoothing of the "claims / premiums" ratio rather than a direct smoothing of past claims: the advantage of this technique is that it is better able to anticipate a rise (or a fall) in payouts linked to an increase (or decrease) in the number of policies / policyholders. For each type of risk (physical injury, car, transport, etc.), the expected claims are calculated in three stages:

stage 1: detection and correction of exceptional values in the "claims / premiums" ratio using a linear regression model in relation to a linear trend with a time dummy over the years;

stage 2: smoothing the series of the "claims / premiums" adjusted ratio by a mobile average with linearly decreasing coefficients across a depth of ten years;

stage 3: calculation of expected payouts = smoothed ratio x premiums.

This smoothing is performed for for-profit insurance companies. On the other hand, gross claims were retained in calculating the production of mutual funds and provident institutions, due to a lack of time depth in the available series.

With the switch to ESA 2010, measuring *reinsurance (3a)* was changed. Previously, the production of reinsurance was calculated as the balance of all transactions between direct insurers and reinsurers (i.e. premiums – claims). It is now measured in the same way as the production of direct non-life insurance. This results in an upward revision of the overall production of insurance companies (€+3.1 billion in 2010), by the amount of premium supplements, but with no impact on GDP. In fact this production introduced for reinsurance is offset by a new intermediate consumption for insurers, and hence an equivalent reduction in their value added. This production represents about 10% of the production of direct insurance.

#### 1.1.5 (4) Government weapons systems as fixed assets

The reclassification of expenditure on heavy military equipment as GFCF modifies the level of GDP directly. The value added (VA) of general government non-market branches is in fact conventionally determined by adding together the compensation of employees, taxes net of subsidies on production and the consumption of fixed capital. Capitalisation of expenditure on military equipment, which is currently considered as fixed assets, generates consumption of fixed capital (CFC), measuring the loss in value that these assets undergo over the years through normal use or obsolescence. This growth in CFC increases general government VA in turn, and hence GDP. In 2010, the impact on the GDP level was €+3.3 billion.

In terms of demand, this change in recording method substituted GFCF for part of intermediate consumption: government investment was thus increased from €+6.6 billion in 2010. However, the new method for recording military spending also had an impact on collective general government consumption. Defence makes up part of the services that general government provides for the community as a whole, for purposes of collective

consumption. Capitalisation of military spending affects this consumption in two opposite ways: on the one hand, the reclassification of intermediate consumption as GFCF (which reduces non-market production and collective consumption, which is the counterpart of this), and on the other, taking into account the CFC that results from this new GFCF. Collective consumption is therefore revised by an amount equal to the difference between apparent CFC and expenditure reclassified as GFCF. In 2010, when deliveries of military equipment were particularly large, the CFC was less than GFCF: all in all, collective consumption expenditure was revised downwards by €+3.4 billion in 2010. This was not the case in 2011, when an increase in general government collective consumption was recorded (€+1.1 billion). Since 2005, the amounts to be recorded as military GFCF have been evaluated from budgetary programmes “Equipping the armed forces” and “Preparation and use of the armed forces” run by the Ministry for Defence. Only expenditure on equipment related to heavy military equipment and listed under heading V of the budgetary classification (investment expenditure) are recorded as GFCF. Expenditure relating to heading III, which corresponds to operating and maintenance expenditure, is still counted as intermediate consumption. For the period 1953-2005, amounts of GFCF were assessed based on data transmitted by the Economic Section for Defence (OED) under heading V per weapon. Once the long-term GFCF series were established, the model of the permanent inventory could be used to evaluate the corresponding capital stocks, decommissions and CFC based on GFCF flows, and the mortality and depreciation laws for equipment based on the mean lifetimes of the assets. In this case, a mean lifetime of 20 years was used for heavy military equipment.

#### *1.1.6 (8) The third own resource of the European Union based on VAT*

The treatment of taxes levied by the European Union was changed in the new ESA: they were previously levied directly by the European administrations (sector S2), but they now pass through the accounts of the member countries (S13). Taxes on production and imports paid to EU institutions are therefore reduced by the amount of the third own resource of the EU based on VAT, which stood at €+2.4 billion in 2010 according to the source that was usually used by the national accounts to prepare the general government accounts, the government accounting data supplied by the DGFIP.

Although it had no impact on GDP, this new method increased GNI by €+2.4 billion in 2010.

#### *1.1.7 (10) Output of the Central Bank*

In the output of the Central Bank, ESA 2010 recommends distinguishing invoiced from non-invoiced output, estimated from its production costs. Non-invoiced output should conventionally be allocated to intermediate consumption of other financial intermediaries (in the previous ESA, the entire Central Bank output was allocated to intermediate consumption in S12).

The output of the Central Bank was estimated as the sum of the costs of production in the French accounts in base 2005 and hence already compliant with the ESA 2010 recommendations: output is therefore unchanged in base 2010. However, the fact of considering invoiced output as no longer being consumed by other financial intermediaries raises their value added. The counterpart in the expenditure approach is a revision of household consumption upwards.<sup>2</sup> This new system increased GDP and GNI by €0.6 bn in 2010.

- 3) If for any transitional item identified as having an impact on GNI in the Manual on the Changes between ESA 95 and ESA 2010, a country shows either no impact or an impact equal to 0, further relevant justification is required.

In the French national accounts, points (5), (6), (7), (9), (11) in the Eurostat Manual on the changes between ESA 95 and ESA 2010 are considered to have no impact on GNI.

In particular, **point (5)**, “Decommissioning costs for large capital assets”, involves taking account of future costs of decommissioning large capital assets in the value of assets; this can only have an impact on GNI via general government or NPISH assets, through its impact on consumption of fixed capital and consequently on non-market production. In France, these large capital assets, especially nuclear, are mainly owned by non-financial corporations.

Concerning **point (6)**, “Government, public and private sector classification”, taking account of qualitative rules to define the boundary between public and private has not resulted in any reclassifications.

Concerning **point (7)**, “Small tools”, in base 2005, the French national accounts could not use the ESA 1995 criterion (criterion according to an amount) to define the boundary between IC and GFCF. Using a criterion for the destruction time of the good in the production process (more or less than one year) has therefore not led to any change in the evaluation of GFCF and IC.

Concerning **point (9)**, “Index-linked debt instruments”, in base 2005 national accountants were already applying the treatment recommended by ESA 2010 for foreign currency-indexed instruments (cf. § 5.94): ESA 2010 therefore had no impact on the calculation of interest flows for foreign currency-indexed instruments. In addition, ESA 2010 (§ 6.56) modified the treatment of interest for foreign currency-indexed instruments defined as “narrow”, including a motivation for holding gains: to date, the analysis by the Banque de France has not shown up the existence of any instruments of this type. The new treatment therefore had no impact on the estimate of GNI for the years concerned by the notification.

Concerning **point (11)**, “Land improvements recognised as a separate asset”, in the case of France, only the agricultural branch is concerned and the values involved are very small. Since the non-market branches do not carry out any land improvements in the French accounts, the impact on GNI is zero.

- 4) Provide a list of the items for which the new treatment in the ESA 2010 necessitated the use of new sources and methods. Describe these sources and methods in this section or make references to the description in other relevant sections of the Inventory. Include within the description:
  - a) reference year of when the new source and method was first used;
  - b) the method of back-casting to produce a time series (if any);

c) reference to any specific research study that informs the new methodology.

See 2.2, § 3), points (2) and (3b)

## **2.3 Major revisions since the last version of the GNI Inventory other than due to conceptual changes in ESA 2010**

- 1) Provide an overview of the revisions due to the GNI reservations (specific and transversal) and show their impact on GNI for the years under reservation (in both nominal and relative terms).
- 2) The switch to base 2010 for the national accounts provided the opportunity to lift the following reservations:

### *1.1.8 – Better assessment of the value added of mutual funds (specific reservation)*

INSEE obtained data from the French Prudential Supervisory and Resolution Authority (ACPR) on the aggregated accounting statements for all mutual funds (income statements, balance sheets, annexes) for 2010. Production by mutual funds was revised upwards (due mainly to a better quality estimate of supplementary income than in base 2005) as were intermediate consumptions. It was on the basis of these new levels produced for 2010 in accordance with the ESA 2010 recommendations, that a backcasting of production and intermediate consumptions of the mutual funds was able to be carried out. This full assessment of the accounting statements of mutual funds in base 2010 resulted in the value added of mutual funds (excluding reinsurance and conceptual corrections) being revised upwards for 2002-2009 by between €1.5 bn and €3.6 bn, depending on the year.

### *1.1.9 – Calibration on balance of payments data (specific reservation)*

Base 2010 also provided the opportunity for the French national accounts to recalibrate according to the version of the balance of payments known at the time the national accountants constructed the base years.<sup>1</sup> Some conceptual deviations remained.<sup>2</sup> For the period 2002-2009, GNI was revised by around €-2.3 bn to €+2.5 bn, depending on the year. This revision took into account the recalibration on the balance of payments and the revision of the conceptual corrections that were made, especially income distributed by non-resident Collective Investment Funds (CIF) which was also the subject of a transversal reservation (reservation I on cross-border income).

### *1.1.10 - Treatment of income from cross-border property (transversal reservation I)*

In the case of France, questions concerning this reservation relate specifically to three points:

- the treatment of second homes in France owned by foreigners and homes owned by residents living abroad;

- the treatment of dividends and interest paid by resident Collective Investment Funds (CIF) to non-residents and by non-resident OPCs to residents;
- the treatment of reinvested profits from foreign direct investment (FDI).

#### The treatment of imputed rents on second homes in France owned by people resident abroad, and homes owned abroad by people resident in France

Research was carried out in 2015 to estimate the income derived from possession of these second homes.

In the first part, covering second homes in France, the source used was FILOCOM (which identifies home owners who are non-residents, by country of residence). Estimates of imputed rents for all second homes were broken down by country. The adjustment to be applied to the profits distributed from quasi-corporations (D.422) was then estimated by applying the gross operating margin (B.2G) / Production (P.1) ratio, estimated for all dwelling service activity (main and second homes, irrespective of country of residence of the owner) to the estimated production of rent for second homes. The adjustment to be applied to income (D.422) paid to the rest of the world could thus be estimated, with its counterpart by country. Ultimately, the negative adjustment to be made to GNI was around €1 bn.

In the second part, information taken from an Italian study confirmed the common idea that France's strong attraction for tourists would mean that the adjustment to be made for French residents who owned a second home abroad would be much smaller.

Given all these elements, the adjustment to be applied to the French GNI in respect of second homes, although impossible to evaluate precisely, would be between 0 and €-1 bn per year. In any case, it would certainly be considerably below the threshold of 0.1% of GNI (i.e. €2 bn in 2010). There was therefore no need to adjust GNI with regard to secondary dwellings.

#### The treatment of dividends and interest paid by CIFs

In base 2010, all interest and dividends received by resident CIFs (Collective Investment Funds) were paid in full to CIF unitholders in the form of "Income attributed to CIF unitholders" (D.443) on a prorata basis according to the number of investment fund units held (F.52). In base 2005, the CIFs also paid all of their income to their owners, but in the form of interest (D.41) and dividends (D.42).

Non-resident CIF unitholders therefore received both "Non-reinvested earnings from investments attributed to CIF unitholders" (D.4431) and "Reinvested earnings from investments attributed to CIF unitholders" (D.4432).

Therefore no revision was required to the income paid to the rest of the world with regard to CIFs.

However, the inclusion of income D.443 from non-resident CIFs is new in base 2010. In base 2005, this income was not included in the accounts, whether it was actually distributed or reinvested. This income is now evaluated by applying a rate of return observed for resident CIFs with outstanding assets (F.52) held by residents vis à vis the rest of the world.

Estimated income from property received from the rest of the world for 2002-2009 was therefore adjusted for amounts of income from non-resident CIFs. This adjustment brought up GNI by €1.0 bn to €2.4 bn depending on the year, but it is already included in the adjustment made to respond to the reservation when the balance of payments was calibrated.

#### The treatment of profits reinvested from foreign direct investments (FDI)

Cf. 8.4.3

#### *1.1.11 – Inclusion of illegal activities (transversal reservation VI)*

Tobacco contraband was already included in base 2005. Alcohol contraband was not previously included but a detailed analysis of the subject showed that the low level of taxation on alcohol in France compared with its immediate neighbours prevented a boom in alcohol smuggling. No adjustment was therefore made to take alcohol smuggling into account.

Prostitution is legal in France. When it is discreet and takes place in business premises that are also used (and especially officially used) for other activities (bars, massage parlours), it has already been counted in GDP since these establishments have their own legal existence and make tax declarations, adjusted by the national accounts to take account of fraud. Street prostitution, on the other hand, very often takes place under duress; this form of prostitution does not therefore fulfil the criteria given in § 1.66 of ESA 2010 (“A transaction is an economic flow that is an interaction between institutional units by mutual agreement”) and must be excluded from the estimates of GDP and GNI.

No adjustment was made to take prostitution into account.

The impact on GDP of drug trafficking, which was not included before base 2010, was estimated at €2 bn in 2010 based on various publications by the French Drugs and Drug Addiction Monitoring Centre (OFDT).

#### *1.1.12 – Reclassification of vehicle registration tax as a tax on products (transversal reservation VII)*

The tax on vehicle registration documents (previously called cartes grises) was counted in base 2005 as another tax on production (D29) or another current tax on income or wealth (D59), depending on whether the tax was paid by an enterprise or a pure household. At the request of Eurostat, this tax, amounting to €1.9 bn in 2009, was reclassified as a tax on products.

Concerning uses, it is offset in GFCF when it is linked to the purchase of a vehicle by an enterprise or to final consumption expenditure for households when the vehicle is bought by a household.

All in all, treating this reservation added €1.9 bn to GDP and GNI in 2009.

#### *1.1.13 - Better inclusion of intermediate consumptions in the rent branch (transversal reservation VIII)*

Intermediate consumptions for households producing dwelling services were re-examined in the light of a housing satellite account and as a result increased by €2.4 bn in 2009. GDP and GNI were reduced by the same amount.

### **Impact of treatment of reservations on GNI in €bn**

	2002	2003	2004	2005	2006	2007	2008	2009
Specific reservations								
-mutual funds	1 502	1 666	2 203	2 795	3 396	3 545	3 557	3 215
-balance of payments	296	1 011	969	1 451	2 220	2 520	2 065	-2 294
Transversal reservations								
-cross-border income	0	0	0	0	0	0	0	0
-illegal activities	1 595	1 639	1 712	1 773	1 855	1 947	1 997	1 940
-vehicle registration documents								1 917
-IC in the housing branch								-2 415
<b>Total</b>	<b>3 394</b>	<b>4 316</b>	<b>4 884</b>	<b>6 020</b>	<b>7 471</b>	<b>8 012</b>	<b>7 619</b>	<b>2 364</b>

#### Impact of treatment of reservations on GNI, in % of GNI in base 2005

	2002	2003	2004	2005	2006	2007	2008	2009
Specific reservations								
-mutual funds	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%	0.2%
-balance of payments	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	-0.1%
Transversal reservations								
-cross-border income	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
-illegal activities	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%

- vehicle registration documents	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
-IC in the housing branch	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.1%
<b><u>Total</u></b>	<b><u>0.2%</u></b>	<b><u>0.3%</u></b>	<b><u>0.3%</u></b>	<b><u>0.3%</u></b>	<b><u>0.4%</u></b>	<b><u>0.4%</u></b>	<b><u>0.4%</u></b>	<b><u>0.1%</u></b>

1 The balance of payments is authorised to revise its estimates at any time. For imports and exports, after data had been given to the national accountants to construct their base year, the levels were revised (this has no impact on the level of GDP, however, since in the French national accounts the income approach is used)

2 For taxes and subsidies, the national accounts favour information from the DGFIP which the balance of payments must align with; for compensation, conceptual treatments on participants were applied to balance of payments data. For cross-border income, a conceptual re-treatment of construction sites abroad was applied; FISIM and collective investment funds were added; conceptual adjustments were made linked with financial leasing; a re-treatment was applied to interest and dividends on securities and they were measured before taxes were paid.

- 3) Outline the major revisions, other than due to the GNI reservations, made since the last version of the GNI Inventory (including their impact on GNI in both nominal and relative terms). Descriptions provided should be consistent with the information submitted in the relevant Quality Reports.

#### Innovations introduced by base 2010

In addition to the changes in concept imposed by ESA 2010, the change in base provided an ideal opportunity to work on the different methods used to construct the national accounts.

During the change to base 2010, various investigations were carried out on the quality of GNI: some did not result in any changes (the investigations into alcohol contraband showed that it was too marginal to have any impact on GNI; investigations into the value valorisation of second homes did not believe that it was necessary to change method); others led to some more substantial changes. In the insurance account for example, the switch from accounting statements transmitted to the Prudential Supervisory and Resolution Authority (ACPR) by the insurers, to national accounting data was looked at in depth.

A comparison of **rents** in the central account and in the housing satellite account, at a detailed level, by institutional sector, revealed a mismatch between the two in household production of dwelling services. Base 2010 provided the opportunity to recalibrate this production, and the associated intermediate consumptions, in the satellite account.

In base 2010, as was already the case in base 2005, added value is calibrated on its

estimate in the income / sectors approach. Studies have been carried out to improve the process of convergence between the expenditure approach and the income approach: the **total tangible GFCF of non-financial enterprises** was therefore evaluated based on two sources which were both present in the ESANE information system<sup>1</sup> (to be precise, using fixed assets declared in corporate tax returns and the annual sectoral business surveys), via a re-treatment adjusting differences in concept and valuation method between business accounts and national accounts. Detailed business data were also examined to determine the **GFCF in software and construction. The production of software for own use** was re-evaluated based on wages paid to internal computer teams and other costs, using a method suggested by the OECD, which was also applied to estimate production of databases for own use.

Data on retail trade enterprises taken from ESANE were also used to re-estimate **household consumption levels**.

### Innovations introduced by base 2005

In terms of sources, the main change brought by base 2005 was in business statistics, with the switch to the **ESANE system (Elaboration of Annual Business statistics)** with the SIE (Intermediate Business System) no longer being used. Compared with the SIE, which like ESANE combined administrative tax data and survey data, the surveys have now been recast and the sampling techniques improved.

**Valuation of the non-observed economy** was re-examined using tax audit data from the DGFIP.

**The NPISH account and social action** have been totally overhauled. For the base year, the construction of the NPISH account is based mainly on the annual declarations of social data (DADS), from which the payroll can be estimated for branches other than non-market sector education and social action. Regarding social action, several surveys carried out by the Directorate for Research, Analysis, Evaluation and Statistics (DREES) have been used to evaluate supply and use balances (ERE). The national solidarity fund for autonomy (CNSA) provided data on average costs per place in certain establishments and services. Official public spending amounts and some price indices (such the indexes for retirement homes) were also used to determine supply and use balances.

**A new treatment was adopted for international trade in FISIM.**

In **forestry**, two changes were made:

- The first concerns the method for evaluating standing timber: it now takes into account the fact that a large proportion of the timber taken from the forests is not marketed (it is simply removed by households to be burned after drying), whereas in base 2000, the entire forest growth was valued at the marketable price, which resulted in an overestimation of the value of standing timber output.
- The second is linked with the period when trees are felled: the agreement on this period was revised, and it is now assumed that felling is carried out in the same year as the standing timber is sold, which has consequences for intermediate consumption.

## **2.4 Planned actions for improvements**

**1)** List planned actions for improvements, including improvements to basic statistics.

## **PREAMBLE TO CHAPTERS 3, 4 AND 5: FROM STATISTICAL SOURCES TO THE 3 APPROACHES TO DOMESTIC PRODUCT**

**Purpose of this preamble**

Two very closely connected features of French accounts are the reason for devoting a common introduction to the chapters dealing with the three approaches to GDP, precisely because it would be arbitrary to include such a preamble in one of these chapters rather than in another. This introduction is the subject of this preamble.

For many years, the French national accounts have adopted an integrated approach, in order to comply with the spirit of the international standards of economic accounting. They do not present the results of evaluations covering different parts of the economic circuit only after the fact, in a coherent framework, for such evaluations could just as easily have been carried out totally autonomously.

The characteristic integration of the French approach comes, on the contrary, within the very process of preparing the accounts, since for example goods and services accounts and institutional sector accounts have many starting points in common. At the same time, the information sources on which the national accounts are based have a pronounced institutional character. This does not mean that the entire national accounts information system consists of data from institutional units: to take an example from the opposite direction, simply consider the statistical data on foreign trade in goods which, for the non-EU share of trade, are based on identifying cross-border movements of goods. In addition, there are sources that are specific to each approach to GDP. And here all types of source are used in monitoring and validation procedures. The main sources for the accounts, however, concern institutional units and they are for the most part common to all three approaches.

These are by nature accounting sources, which traditionally means that income that is made available to economic agents can be measured. The availability of balance sheet data, which are required by accounting standards, is fundamental in the process of evaluating capital formation – in fixed assets and in changes in inventories – as operated by the institutional sectors.

The business statistical information system, which is based on corporate accounting data, also contains a large section on the sales that enterprises achieve. The breakdown of these sales by activity and product is the starting point for approaching GDP by production. In France, goods and services accounts use the framework of an input-output table, and sales by product are also decisive in producing product balances (supply and use balances) which are able to validate the expenditure approach when it is autonomous, or which can be used instead of this approach if need be.

These examples show that statistical information on institutional units includes elements that are used in each of the three approaches to GDP. However, this information is not homogeneous from one category of units to another. There are even some sub-sets for which the information is very indirect, and others where there is no such information and it must be reconstituted. In addition, in some areas, such as agriculture or housing, a non-institutional approach is preferred, sometimes called a functional approach.

This is why it is necessary to define the scope of statistical units, in the sense of institutional units, before describing the information that is available on them. This results in a division into three sets of units. It is based on two criteria: the nature of the information available – which may or may not be accounting information – and the exhaustiveness of the coverage of the units concerned.

In this chapter it is also useful to present two coordination tools which can reduce the wide heterogeneity described above. These are the register of statistical units and the general accounting plan.

The use of information sources to produce the national accounts presupposes that they must undergo a certain number of transformations. The conceptual adjustments made to the sources are described, and their purpose, in the respective chapters on the production approach, the expenditure approach and the income approach. Corrections of a statistical nature are described in this preamble, with details in the chapter on exhaustiveness.

This chapter provides the opportunity to introduce the practical links between the annual business statistics in ESANE and the national accounts, which are presented in more detail in chapter 10 on sources.

## **A. Structuring the scope of the statistical units**

### **The diversity of information systems across the institutional sectors**

There is no statistical information system that can be applied indifferently to all units within the scope of the national accounts. **For this reason it is convenient to use a breakdown of the economy into institutional sectors to highlight the specific features of each source.**

Those units whose main function is to produce non-financial market goods and services are non-financial corporations and (non-financial) unincorporated enterprises.

Companies constitute institutional units in their own right and form the non-financial corporations sector. Unincorporated enterprises, however, are not distinguished from the households to which they belong and they therefore belong, indirectly, to the household sector. However, in the statistical observation system used by the French national accounts, enterprises in these two categories are first known through the declaration that they make to the tax authorities, which is picked up in ESANE, the annual business statistics system.

The units whose main function is to provide finance and insurance undergo a prudential check organised by the law. They are required to provide the monitoring bodies with accounting documents, and these are the main source of information for the national accounts. Financial auxiliaries, for their part, are monitored via ESANE.

The main function of general government is the redistribution of income and wealth, and also the provision of some non-market services. Information on units in this sector is easily accessible: for those that are under the supervision of elected assemblies, this information is largely in the public domain; other information is under the responsibility of the administration. All in all, information on general government is all centralised by public accountants, and is transmitted to the national accounts department.

For calculating GDP, a knowledge of the operations of general government is necessary not only to evaluate the contribution of the relevant units to the value added of the economy, but also to put a figure on the operations – taxes and subsidies – that appear in the expressions that define this aggregation.

In addition, because of the qualities of exhaustiveness and reliability that are recognised in information originating in general government, their data play a leading role compared with

the accounts of units in other sectors. The evaluation that appears in the spontaneous accounts of a set of agents for a transaction that they have carried out with general government may therefore be adjusted after being compared with their own records of the transaction: this is the case for taxes, subsidies and social contributions.

Households are a specific case. While their main function is to consume, their production activity is nevertheless significant: for market production, this is carried out for the most part in the fairly unorganised framework of enterprises that are not constituted as companies, and so they are monitored by ESANE. There is also production for households' own consumption, and this is obtained through a functional type of approach.

In general, other household operations are known mainly not through information from sources derived from the households themselves, but through the intermediary of data from agents who are the counterparties in these operations. Thus we sometimes say that the household account is drawn up "to mirror" other accounts. However, a considerable proportion of household consumption is known via the participation of households in household surveys of their spending: this is the case notably for dwelling services. They are extrapolated using population census data, which are the prime source of information on the household population.

In France, non-profit institutions are generally identified systematically for administrative purposes. Nevertheless, the frequent movements that affect their demographics make it difficult to make any regular statistical enquiries into the scope of those that should perhaps be classified in the NPISH sector. Knowledge of their operations is therefore gained indirectly.

Lastly, the balance of payments sets out the boundary of the national economy as it records the operations that bring together the resident institutional units classified in the sectors presented above and the rest of the world. It is from the balance of payments that operations are taken in order to evaluate the transition from Domestic Product to National Income.

### **Division into three sets**

If we focus on institutional units in their capacity to generate value added and primary income, we must differentiate three large sets of units that stand apart by the nature of the information available on their operations and the methods used to cover them exhaustively.

**The first set covers sectors and parts of sectors where the units are defined individually, and for which there are full and exhaustive accounting data.** These are general government and financial corporations, with the exception of financial auxiliaries. By transposing their accounting data into national accounting operations, all the necessary data from these units are available to evaluate GDP: operations in production and operating accounts, and capital formation operations (GFCF, changes in inventories). These data provide information for the three approaches. They do not subsequently require corrections or adjustments.

**The second set covers units where the accounting data must be completed and adjusted.** It includes non-financial enterprises, although excluding farms, and enterprises in the forestry and fishing sectors, and it includes financial auxiliaries. Their data are available in ESANE, which combines accounting information which is supposedly exhaustive (since all enterprises

are obliged to file their accounts with the tax authorities every year), and these data need to be completed: this is because figures for certain national accounting operations are not in the basic information for part of the scope, or perhaps a value has been substituted at the initial evaluation after comparing with other sources. Their data must also be adjusted because some enterprises are absent from the basic records, and because there is an assumption of under-declaring for certain sensitive variables.

The majority of the treatments performed on this second set lead to the preparation of the non-financial accounts of non-financial enterprises. ESANE therefore plays a key part in approaching GDP via income. It is also ESANE that provides the starting point for estimating the production of non-financial corporations and unincorporated enterprises. Lastly, it is from ESANE data that an initial evaluation is made of gross fixed capital formation and changes in inventories in the units in question: this is therefore an important link in the evaluation of GDP via demand.

**Finally, there is a third set where evaluation of the contribution to GDP does not systematically require the prior identification of the units of which it is made up, and which is not regularly based on accounting data.** For the purposes of this presentation, it includes:

- 1) units for which the national accounts have not been produced from accounting data: these are farms and producers in forestry or fishing, and NPISH;
- 2) households, regarding their productions outside the framework of an unincorporated enterprise: this is the case for the production of dwelling services, and other goods and services for their own final consumption, as well as construction work that they carry out for their own fixed capital formation.

Table 1.1 below gives a two-way presentation of institutional sectors and sub-sectors, and the typology of the sets described above. It shows that the division is not perfect. The risk of double-counting is low, however.

Concerning agriculture, forestry and fishing, the risks of double-counting are reduced by the fact that work in non-financial enterprises is based on data that exclude from the outset enterprises that carry out these activities as their main activity. However, the few cases where these activities are carried out as a secondary activity by enterprises that appear in the non-financial enterprises set have to be dealt with. There are also borderline cases, which are well identified however, with households and general government.

Housing presents a problem of coverage. The method used to evaluate its contribution to GDP is based on a functional type of approach, consisting of locating the housing and attributing a rent, which may be effective or imputed. The result must then be allocated to groups of landlords, presented by institutional sector and sub-sector. This presupposes that it is possible to locate housing activity in the sectors where it is carried out as a secondary activity. Ultimately, it is the household sector that inherits the balance.

Further details and figures are given in the appropriate parts of the respective chapters on the production and income approaches.

### **Relations between institutional sectors and sets of statistical units**

Ensembles Secteurs institutionnels	Ensemble des unités à comptabilité complète et exhaustive	Ensemble des unités à données comptables complétées et redressées	Ensemble d'activités dont l'approche n'est pas institutionnelle
Sociétés non financières		Sociétés non financières non agricoles	Agriculture, sylviculture, pêche Logement
Sociétés financières	Intermédiaires financiers Assurances	Auxiliaires financiers	Logement

**Contribution of the different sets to total gross value added in the economy (millions of euros) in 2010**

<b>1st set</b>	<b>413,729</b>
General government	334,438
Financial intermediaries	63,432
Insurance companies	15,859
<b>2nd set</b>	<b>1,130,483</b>
Non-financial corporations and unincorporated enterprises, excl. NACE A	1,117,879
Financial auxiliaries	12,604
<b>3rd set</b>	<b>258,769</b>
NACE A	31,939
Activities of households excluding unincorporated enterprise activities	196,700
NPISH	30,130
<b>Total gross value added, at basic prices</b>	<b>1,802,981</b>

Note that the total gross value added for 2010 shown in the table above differs both from the total gross value added published on insee.fr and the total gross value added transmitted for GNI notification. This is due to:

- 1) the non-inclusion in the total gross value added published on insee.fr of the contribution of drug trafficking to GNI (+2,000 million euros);

- 2) the exclusion from the total gross value added transmitted for GNI notification of the contribution from Mayotte (+1,450 million euros), which only gained the status of ultra-peripheral region of the EU in 2014.

## **B. Two coordination tools**

### **1. Directory of statistical units**

The usefulness of a directory of statistical units for the purposes of the national accounts has long since been proven. Its primary use is upstream from the preparation of the accounts, as it acts as the base from which surveys on the productive system are launched.

In the context of compiling the accounts in France, the directory is used at three levels:

- a) business data from different sources can be compared (cf. section D);
- b) omissions or duplicates are avoided in accounts covering large units when their statistical scopes are different;
- c) for enterprises monitored via ESANE, it is used as an extrapolation tool to cover absences of small units.

The scope of the register of statistical units in France is greater than its name would suggest: SIRENE – the Computerised System for the Register of Companies. Its role is to be the register of “natural persons exercising a non-payroll profession independently, corporations under public law or private law, institutions and services of the State and territorial authorities. When they are listed in the register of trade and businesses, the trade directory, or if they employ payroll workers, they are subject to tax obligations or may benefit from public financial transfers”.

It is therefore a register where the reference unit is a legal one, and is not a directory based on locating local units. In fact it is an inter-administrative register managed by INSEE. It is updated via a network of associated bodies which reflect the diversity of the partners concerned and the units that the register is intended to include. The fact that social bodies are stakeholders, for example, means that all employers appear in the register; but enterprises with no employees are also listed.

In 2014, about 3.9 million legal units that could be considered as institutional units were listed in SIRENE (of these, 2/3 have no employees). They are divided equally between natural persons and corporations. Each unit is identified by:

- 1) name, if it is a natural person, company name if it is a corporation;
- 2) address of registered office;
- 3) legal form.

INSEE gives each unit that is added to SIRENE a fixed identification number. The unit's establishments – in the sense of local units – are also given an identification number based on

that of the parent unit. Units make a declaration when they start up, when there is a change in their situation and when they cease their activity.

In addition to data identifying units and their establishments, the register also contains two items of statistical information: the number of payroll employees and the main activity, based on the NAF classification (French classification of activities, formerly NACE). These two items are updated annually when it concerns units that are included within the scope of surveys on the productive system (see references to EAP and ESA). Managing the register means regular scanning to eliminate units that appear to have ceased activity without recording this fact.

## **2. The general accounting plan (PCG)**

All enterprises must maintain accounts in accordance with a certain number of rules, which make up an accounting plan. This is for their own use and for their partners. An accounting plan is a set of rules and methods setting out a standardised framework in order to:

- define the concepts and technical notions of accounting;
- record and process information inputted by the accountants;
- produce summary accounting statements providing a global representation of an enterprise's assets (balance sheet) or transactions (results, financial flows).

In France, the law imposes a certain number of accounting obligations on enterprises. For this reason, accounting has undergone a constant harmonisation process culminating in the production of the general accounting plan (PCG). The accounting plan currently in force was drawn up in 1982, it was amended in 1986, and rewritten in 1999. It complies with the fourth Council Directive of the European Communities of 25/07/1978.

The PCG sets out the principles of accounting: faithful picture, comparability, continuity - regularity, sincerity - prudence - permanence of methods. It provides a definition of assets and liabilities, revenues and expenditure, for which it also determines the accounting and evaluation rules. It determines the provisions concerning the presentation, the structure and the operating of the accounts. The classification for PCG accounts is reproduced in chapter 10 on data sources.

Concerning the accounting statement summaries, the PCG proposes three systems so that the list and the presentation, and also the complexity, can be adapted to the enterprise's size and activity. All three systems require at least the presentation of a profit and loss account – showing the expenditure and revenues for the year, and the resulting profit or loss – and a balance sheet.

It is interesting to note that what is called the “developed system” contains a table of intermediate management balances, which groups expenditure and revenues together into seven stages so that activity or performance indicators can be seen: gross trade margin, production, value added, gross operating surplus, current result before tax, exceptional result, result for the financial year.

The PCG is general in scope. The 1999 version states that it now applies to entities and not only to enterprises. In fact, it was extended generally, especially to cover territorial authorities

– municipalities, departments, regions and their establishments and groups. Common accounting standards now also apply to the State via the State general accounting (CGE), from the 2006 financial year.

The PCG has undergone some specific adaptations for units whose activity has any markedly unusual features. This may be simply specifying the content of an accounting operation in relation to a specific profession or activity. However, plans applicable to some sectors of the economy may also include operations especially devised to reflect the particular feature of their activity, and they suggest adaptations to the summary documents. This is the case, for example, of the respective plans applicable to credit establishments and insurance companies. Specific adaptations were also required for territorial authorities and for the State.

Using accounting information like the PCG to produce the national accounts means assessing what the two accounting systems have in common in terms of concepts, and in what way they differ. Concerning what they have in common, it is important to stress that the preference clearly shown in the new international standards for national accounts (SNA 2008, ESA 2010) is for recording transactions on an accrual basis, which brings them much more in line with the rules of business accounting.

However, if we consider only the main principles, the evaluation of stocks of assets, and thus of all transactions relating to input and output of stocks of assets, remains a point of divergence between the two accounting systems.

Remember too that national accounting is quadruple entry, i.e. it requires coherence in the recording of a transaction by the two parties: if there is divergence, this rule requires a choice to be made, which results in the introduction of a deviation into the initial accounting of at least one of the parties. It is also for this reason that national accounting does not generally retain provisions – nor reversals of provisions – which appear in business accounting, often for reasons of prudence, notions that are foreign to national accounting.

There are also clearly identified transactions that require specific treatment in the national accounts, and therefore a re-treatment of the original accounting information: consider financial leasing, for example, which is treated as simple rental in the French PCG, and imputed social contributions.

### **C. All units with complete and exhaustive accounting**

In this set of data, we now consider collections of individual data. There is no statistical adjustment procedure. The SIRENE register is involved in order to avoid double-counting, which could appear just as easily with all the non-financial enterprises as in this set of data. A natural distinction is made in this set of data between general government, on the one hand, and financial intermediaries on the other. If we put the State to one side, which has a very specific accounting information system, the units in this set now provide information in accordance with the PCG, with only a few adaptations.

#### **1. General government**

##### **Identification**

The usual definition of general government (APU) focuses on its function, especially in the redistribution of income and wealth. To highlight its particular feature as a producer, the units in this sector can be defined as institutional public units with mainly non-market activity.

Inclusion in the general government sector presents no problem for the majority of institutional units concerned. Nevertheless, there are a few units for which the implementation of the criteria defined in ESA is not immediate. Some public units have a major financial role but can nevertheless not be considered as financial intermediaries: this is the case for bodies that finance defeasance operations by public banks, set up by the State in the 1990s. They may have large balance sheets, but their productive activity is nevertheless negligible.

More significant because of their contribution to GDP is the case of certain bodies that draw most of their resources from the sale of their products, but whose autonomy is considered insufficient for them to be able to constitute full institutional units. For example, until 2002 this was the case for military arsenals, whose industrial activity is shipbuilding. It is usually possible to identify market establishments, for which production and operating accounts are prepared. However, their statistical identification is through that of the institutional unit on which they depend.

There are two main ways in which accounting information on general government is organised. Units of public law, such as the State, territorial authorities, units that have the legal status of a public establishment, are subject to rules concerning management and public monitoring which usually means that complete and detailed information is available on how they carry out their spending, both operating expenditure and capital expenditure.

Private law units, which are non-profit and which belong to the APU sector because they are financed mostly by public resources, follow the general accounting plan. This distinction is tending to disappear, however, as most units are gradually adopting the general accounting plan, with just a few adaptations required to take into account their specific features.

The general government sector is divided into three sub-sectors, each of which is subdivided into two sub-sets:

- central government (S.1311): State and various central administration bodies;
- local government (S.1313): local authorities and various local administration bodies;
- social security funds (S.1314): social insurance funds and bodies dependent on social security funds

All data from units that form part of the APU sector have their accounts centralised by the Directorate General of Public Finances (DGFIP) in the Ministry for Finance, where a department prepares them in a national accounting format.

## **State**

The State constitutes a single institutional unit, where transactions are carried out by the Treasury. Its economic importance and the specific features of its accounting system justify going into some detail.

State transactions that are subject to the Budget laws are to be found in:

- 1) General Budget, the only one to be truly compliant with budgetary rules (annuality, unity, universality, speciality);
- 2) special Treasury accounts;
- 3) annex budgets.

Treasury transactions relating to the management of public debt are accounted separately: these are financial transactions in national accounting.

The General Budget records revenues and expenditure by the State administrative services. The source for analysing General Budget expenditure, in execution, is the “Development of budgetary expenditure”. This document determines the effective amounts of expenditure made as part of the budget laws during a budget year.

Special Treasury accounts (CST) are accounts open in the Treasury entries to trace expenditure and revenues made outside the General Budget, thus constituting an exception to the rule of budgetary universality. The following should be distinguished:

- trading accounts, which trace transactions of an industrial and commercial nature carried out incidentally by certain State departments; most of these accounts record expenditure on goods and services; some trace production activity, which results in them being treated as market establishments; the largest are the directorate of aeronautical construction and, until 2002, the directorate of shipbuilding (currently DCNS, classified outside the scope of the APU);
- other special accounts – earmarked accounts, margin accounts, loan accounts, monetary transaction accounts – where activity generates practically no production.

The annex budgets have been devolved from the State budget. They trace the allocation of normal and renewable revenues to certain institutions or permanent activities of the State. They enjoy relative autonomy and follow the general accounting plan. Previously, some were treated as quasi-corporations: this was the case for the annex budget for post and telecommunications. Since these activities have been carried out within companies, this situation has disappeared. The annex budgets mainly trace non-market activities which remain incorporated in the State; some of their products are part of market production, however, and sometimes subject to VAT.

### **Miscellaneous central government bodies**

Miscellaneous central government bodies (ODAC) include bodies with various types of status, usually with a legal personality, to which the State has entrusted a specialised operational competence at national level. Those ODACs which are public establishments, whether they are administrative, industrial and commercial or scientific and cultural, have their accounts governed by a specific accounting instruction, derived from the general accounting plan. Private law bodies that are predominantly publicly financed follow the general accounting plan.

ODACs include about 700 units, the largest of which cover the following areas and functions, illustrated here by some examples:

- Education: universities and many Grandes Ecoles;
- Research: National Centre for Scientific Research (CNRS), Atomic Energy Agency (CEA), National Research Agency (ANR);
- Culture: national theatres and museums, major orchestras, national library;
- Economic and social affairs: Pôle Emploi (job centre), Financial Market Regulator (AMF), offices for intervention in agricultural markets;
- Environment: national parks, coastal protection, National Meteorological Office;
- Finance: defeasance bodies, national motorway fund;
- Guarantee against certain risks (natural disasters).

### **Local government**

Local government (APUL) includes local authorities and the various bodies of local administration.

Local authorities consist of:

- territorial authorities with general jurisdiction: municipalities, departments and regions (main budgets and annex budgets);
- intermunicipal syndicates, conurbation communities and public companies with non-market activity. The existence of these bodies either represents a joining together of several municipalities to extend the financial base necessary to carry out capital works (intermunicipal syndicates to develop industrial areas), or suggests that they are operating under the supervision of certain public services. These bodies generally operate in close relationship with the municipalities and the departments. In national accounting they are therefore grouped and consolidated with these bodies.

Miscellaneous local administrative bodies (ODAL) include institutional units with varying degrees of independence from local authorities:

- non-market units directly derived from municipalities and departments: municipal centres for social action, school funds, departmental fire and rescue services;
- units responsible for town planning, often derived from the State but with local funding: land development and rural settlement companies;
- consular bodies: chambers of commerce and industry, chambers of trade, chambers of agriculture;
- municipal and association nurseries;
- cultural associations funded by local authorities (municipal theatres, local cultural centres, etc.);
- local public education establishments – primary schools, middle schools and high schools – financed by local authorities; however, teachers' wages are paid by the State and in the national accounts they are recorded in the State accounts.

The definition of the ODALs does not coincide with that of the units designated under the term local public establishments by the DGFIP. Some of these are market establishments and are classified in the non-financial corporations sector, while others are NPISH. In addition, ODALs include units such as consular bodies, which are not local public establishments.

The accounting data for local authorities and local public establishments undergo a standardisation process in the form of instructions which, while respecting the specific features of each level of local administration, follow the general common principles: double entry, notions of wealth, accounts receivable and debts.

Local budgets consist of:

- an operational section, which traces current management service operations;
- an investment section, which traces operations in capital, including those relating to debts.

During the 1990s, local accounting aligned with the general accounting plan. The aim was mainly to adopt a presentation that complied with the nomenclature of the PCG, and improve the description of flows and financial stocks. Calculation of the value added of local administrations was not changed.

Bodies that do not participate in this accounting standardisation transmit various types of financial documents with which to calculate their value added. The accounts for local authority expenditure and revenues, and their treatment in the national accounts, are presented in chapter 10 on data sources.

## **Social security funds**

Social security funds comprise social security institutions and bodies dependent on social insurance units (mainly hospitals).

The social security institutions cover social risks and needs as given in the list in ESA 2010 (§ 4.84), and which grant entitlement to social benefits. They group together bodies with a full set of accounts whose activity consists in paying out social benefits, and whose main resources derive from compulsory social contributions, the rates of which are fixed or approved by general government. This sub-sector includes social security funds that come under the French Social Security Code, but also supplementary retirement schemes with conventional status, and UNEDIC (joint body managing unemployment insurance).

The social insurance schemes of the social security funds include:

- units under the general social security scheme:
  - the National Health Insurance Fund (CNAM), which covers the risks of “Illness, accident at work”, and to which are attached various specific schemes,
  - The National Family Allowance Fund (CNAF) and the family allowance funds, which manage risks to “Families”,
  - the National Old-Age Insurance fund (CNAV), which covers the risk “Old age”,
  - the Central Agency of Social Security Associations (ACOSS), and other bodies based on the general scheme (see list in Annex).

- special funds, which pay social benefits and are financed by shares of contributions from social security funds;
- other basic schemes for employees (special schemes in enterprises and public establishments, agricultural workers, etc.);
- schemes for non-payroll workers (including the agricultural social protection scheme, MSA);
- the scheme for unemployment benefit (UNEDIC), and Associations and agencies that supplement unemployment benefit (early retirement, etc.);
- complementary old-age insurance schemes for employees.

Bodies dependent on social insurance units, which are in fact dependent on social security funds, include:

- public hospitals, and non-profit private health establishments (ESPIC) which are subject to the same constraints and the same funding methods as public hospitals (the majority of funding comes from social security funds);
- social agencies incorporated into social security bodies.

Bodies that are dependent on the general scheme produce accounting documents to comply with an instruction which is organised in a similar way to the general accounting plan. Most of the other bodies have similar accounting rules. A systematic transition to national accounting is therefore possible.

The accounting rules for all social security units, in the sense of the national accounts, were the subject of a reform to align them with the principles and classifications of the general accounting plan. From 2002, these units have transmitted their accounting information in accordance with this unified accounting plan for social security bodies (PCUOSS). The expenditure and revenue accounts of social security bodies, and the way they are dealt with in the national accounts, are presented in Chapter 11 on data sources.

## **2. Financial intermediaries**

Financial intermediaries are companies in the sub-sectors of the institutional sector of financial corporations, other than that of financial auxiliaries (sub-sector S.126 of ESA 2010).

ESA 2010 gives a restrictive definition of financial intermediation (cf. §§ 2.56-2.62), notably regarding control over their assets and liabilities. The result is that financial intermediaries are necessarily institutional units in their own right, with all their attributes, especially that of keeping a full set of accounts. Thus their accounting data are a key source of information on their activity.

A distinction must be made between financial intermediaries other than insurance corporations on the one hand, and insurance corporations on the other.

### **Financial intermediaries other than insurance corporations**

In the French classification of institutional sectors, this group makes up the financial enterprises sub-sector (S.12A). Financial intermediaries are grouped together in the sub-sectors created by ESA 2010, and the sub-sectors themselves are broken down further.

The first sub-sector includes units that carry out the functions of a central bank, in the definition used by ESA 2010. This includes the Banque de France itself and the French overseas departments' note-issuing bank. The scope of this sub-sector is the same as the economic territory defined in the national accounts. Information from these units is largely in the public domain, in order and complete.

The functioning of the banking and financial system is organised in law, more specifically by the banking laws that together make up the French Monetary and Financial Code. This code sets out approval procedures for financial intermediaries to receive the status of credit establishment or investment enterprise.

Credit establishments conduct the usual banking transactions, at least as their principal activity, consisting in receiving funds from the public, granting loans and disseminating and managing payment methods. Investment enterprises exclusively offer investment services in the area of securities.

Two comments:

- credit establishments may be authorised to provide investment services;
- units whose principal activity is portfolio management services for a third party are classified as financial auxiliaries.

Credit establishments and investment enterprises are under the supervision of the Prudential Supervisory and Resolution Authority (ACPR). In particular, they are obliged to provide very detailed financial information for the purposes of prudential control. This information is mainly balance sheet data, but also includes an income statement.

Financial intermediaries – excluding insurance corporations – which are not subject to control by the ACPR are subject to a dedicated system for collecting full accounting information organised by the statistical service of the Banque de France, which is responsible for compiling the national financial accounts. Some of them, the collective investment schemes, have only limited purposes and this probably does not qualify them as full institutional units in their own right; however, it is convenient in practice to consider them as such, especially as they depend economically on authentic financial intermediaries.

Financial intermediaries keep their accounts in accordance with a specific accounting plan based on the general accounting plan (PCG): the credit establishment accounting plan. Here, all balance sheet accounts are classified differently from the PCG, in a way that reflects the specific features of banking activity.

Specific items appear in the costs and revenues accounts, bank operating costs and bank operating revenues respectively, which record interest and commissions paid and received by type of asset/liability.

## **Insurance companies**

Because of the specific nature of insurance and also the wide range of stakeholders involved in this sector, it is necessary to look at it in more detail than simply considering its contribution to GDP. Alongside companies that work in “traditional” insurance, this sub-sector also includes units involved in social insurance, and therefore social security bodies that are part of general government should be differentiated.

All of this activity is supervised by the public authorities, making it easy to have access to good quality information, which today is standardized. The companies concerned are under the supervision of the ACPR.

When preparing the national insurance accounts, a distinction is made between:

- insurance and capitalisation bodies, excluding social insurance;
- social insurance schemes (mutual funds, provident and supplementary pension institutions)

This distinction is not really based on the nature of the activity of the units concerned: social insurance covers risks that can belong to categories of traditional insurance (supplementary illness and life insurance). What differentiates the enterprises in question is rather the way they operate, and the legal framework in which they work. Traditional insurance is governed by the Insurance Code, while social insurance activities are governed by different texts, including the Mutuality Code and the Social Security Code. They also present their accounting documents in accordance with different standards.

### **Insurance and capitalisation bodies**

Insurance and capitalisation bodies include direct insurance companies and companies specialising in reinsurance, whose activity is controlled by the ACPR. They also include COFACE (French insurance company for foreign trade).

The ACPR produces an annual report on the activity of these companies over the year. It also disseminates online very detailed accounting statements, which are the source of reference for compiling the national accounts. These statements include notably an income statement and a balance sheet, along with technical annexes and detailed statements. From these, three types of insurance can be distinguished – life, non-life, reinsurance – even when companies are working in a combination of insurance types. The information also includes reinsurance cessions and acceptances, and provides a high level of detail in terms of the branches of insurance.

Since the 1995 financial year, insurance companies have drawn up their accounts in accordance with the insurance accounting plan, which is adapted from the general accounting plan. In the balance sheet accounts, one class is devoted to technical provisions, specific to insurance activity. Within expenditure and revenues, a distinction is made between technical expenditure/revenues and non-technical expenditure/revenues. This distinction is reflected in the way the income statement is presented.

Since 1994, insurance has posed a problem of territoriality in national accounting. This is because, since that date, prudential control in Europe was no longer on a basis of territoriality, but on a basis of nationality. This means that the ACPR inspects companies whose head office is in France, including branches of French companies that are located abroad. At the same

time, the French branches of overseas companies escape its control. Adjustments therefore have to be made.

COFACE (French insurance company for foreign trade) is a public body that has some particular features. It insures French enterprises against the risks involved in export. It operates on its own account and on behalf of the State. The transactions it carries out on its own behalf are included in the data of the ACPR. Transactions for the State can be traced using a specific accounting procedure. COFACE is nevertheless a single institutional unit, all of whose activity consists of insurance transactions.

### **Private social insurance schemes**

Social insurance schemes include mutual funds, provident institutions and supplementary pension schemes.

Mutualist or mutual groups are partnerships where the main aim is to ensure that social risks are managed collectively. These are non-profit groups founded on voluntary membership by the policyholders. Their activity is midway between social security and insurance. Complementary health insurance is by far their principal activity.

Provident institutions (IP) are bodies that work freely in the supplementary social protection sector. They are joint bodies and virtually all of their activity is in the form of policies covering guarantees against personal injury and death. They operate in the framework of collective agreements or company agreements.

Supplementary pension institutions (IRS) are active at the third level of the employees' pension system. They are usually created within the framework of a company agreement. This category of social insurance is now closed.

Information on social insurance schemes is not uniform. Mutual funds have a specific chart of accounts. The transposition of European Directives into the Mutuality Code has imposed more stringent solvency criteria and the main consequence has been a great concentration of the sector.

Provident institutions also have their own new chart of accounts.

For compiling social insurance accounts, the ACPR transmits to INSEE the result of the quasi-exhaustive totals of the accounting elements that it has for the units under its control.

## **D. All units with accounting data completed and adjusted**

### **Identification**

The contents of this group need to be defined in more detail: it includes non-financial non-agricultural enterprises, when their activity is monitored by gathering accounting data, which is the case for the majority within this scope, and extends to financial auxiliaries, which are part of the same statistical information system, ESANE (Elaboration of Annual Business Statistics).

In the French national accounts, non-financial enterprises include units that, in order to produce non-financial market goods or services, must respect a certain number of

administrative formalities, especially of a social or fiscal nature. In particular, they are required to complete the appropriate tax declaration, which identifies income derived from their productive activity.

This is not too difficult a constraint to comply with. The existence of a VAT system is usually a strong incentive to producers to declare their activity in order to benefit from any possible deductions when they intend to be active at a certain level.

This does not mean that there are no production units that do not try systematically to avoid any tax or social obligations. When the national accounts are being compiled, they are the subject of an estimation procedure, which is described in the chapter on exhaustiveness. However, even though these units do indeed belong to the group of non-financial enterprises, they are not covered by ESANE.

It is certain that the declarations that enterprises make to the tax authorities are not always as totally honest as they could be: as a result, they need to be adjusted, and in fact this process is carried out downstream from ESANE. This point is also developed in the chapter on exhaustiveness.

Non-financial enterprises group together non-financial corporations and unincorporated enterprises. Non-financial corporations exactly fit the definition of the corresponding institutional sector in ESA 2010.

However, the boundaries of unincorporated enterprises need to be clarified in relation to the perimeter of household production, as applied in the national accounts. In fact this boundary corresponds more or less to what everyday language would suggest: there are many tradespeople, craftspeople and members of the liberal professions who carry out their activities in an unincorporated enterprise. There are two criteria which are used to distinguish an unincorporated enterprise: who their activity is destined for, and the legal and fiscal context of their activity.

For the most part, the production of unincorporated enterprises is destined for third parties. Household production – non-agricultural – intended exclusively for own final consumption does not therefore fall into the scope of the activities of an unincorporated enterprise. It is included in household production, but is tracked and recorded differently.

The activity of unincorporated enterprises is carried out in the legal and fiscal environment described above. Therefore, owner-landlords, i.e. individuals who make a dwelling available to a third party in return for payment of rent, are not unincorporated enterprises: they are not under the same fiscal constraints as an unincorporated enterprise and normally they do not have employees. Dwelling services overall are covered by a specific estimation procedure (see below). ESANE data are used solely for allocating the value added derived from dwelling services to the different institutional sectors.

In the system for compiling the French national accounts, none of the non-financial enterprises covered here carries out agriculture, forestry or fishing as their principal activity. There is a specific process for these activities (see below). It is more and more common to find data on farms in the non-financial enterprise information system, and these may be organised as companies or be owned by sole proprietors. However, to evaluate agricultural production and the value added that it generates, traditional agricultural statistics are still favoured when compiling the national accounts.

It should be remembered that for the purposes of classifying units into institutional sectors, unincorporated enterprises are assimilated with the households to which they belong. Unlike companies, it is considered that their assets are combined with those of their households.

Non-financial enterprises as a whole are often referred to in France using the acronym “SNF-EI”, and the term “SNF-EI sector”, or “non-financial enterprises sector” is sometimes used. This is an inappropriate usage since the units concerned belong to two distinct institutional sectors – or even three if, as in the past, financial auxiliaries are also included.

Financial auxiliaries acting as a corporation belong to the financial corporations sector, of which they form a sub-sector (code S.126 of ESA 2010), and are not part of non-financial enterprises as a whole. Unincorporated enterprises carrying out the activity of a financial auxiliary are classified, like all unincorporated enterprises, with their owner in the household sector.

Financial auxiliaries consist of:

- financial auxiliaries in the strictest sense, whose principal activity is that of NACE 66.1 or 66.3
- insurance auxiliaries, whose principal activity is that of NACE 66.2
- non-profit institutions exclusively serving financial agents

They also include holdings of financial groups and certain holdings of non-financial groups which, due to a lack of information, cannot be properly classified in the other sub-sectors.

The accounts of financial auxiliaries are prepared using the same procedure as that used for non-financial enterprises, based only on tax sources. In the following, with a few exceptions, everything indicated about non-financial enterprises also applies to financial auxiliaries.

### **Structural statistics on non-financial enterprises**

There are a wide range of statistics available on the productive system which are differentiated:

- by their periodicity: annual or infra-annual;
- by their purpose, which is expressed by the variables being monitored: physical production, turnover, workforce, remunerations, producer price, formation of inventories;
- by the type of unit interviewed: establishment or enterprise.

These statistics make up the Enterprise Statistical System (SSE) which is structured around the SIRENE register of statistical units.

All these statistics are used in the preparation of the national accounts to different degrees, and in different ways, depending on the different versions of the accounts.

For the purposes of the definitive annual accounts – and the accounts of base years – structural statistics on enterprises are used: their aim is to provide an overall picture of enterprises over a given annual period.

Structural business statistics originate from the requirement for enterprises to provide the tax authorities with accounting documents based on the definitions and evaluation methods of the general accounting plan (PCG). Since 1967 the resulting individual accounting data have been transmitted annually to INSEE, having been inputted by the tax authorities.

Although in common parlance the term “tax data on enterprises” is used, the information that INSEE mobilises in this way, especially for the national accounts, is in fact accounting information. It is not the amount of tax or the tax income that is used by statisticians, but the accounting elements that are used as a basis by the services concerned to verify companies’ tax situation. For the largest units, these include an income statement and a balance sheet, in addition to numerous annexed documents.

This information, which complies with the PCG, is of the same type as that provided to all of the company’s partners (shareholders, banks, employees). Taxable income calculations may sometimes be the result of adapting accounting rules to the specific needs of the administration, but these are usually very specific rules, relating to provisions for example and these are not taken up by the national accountants because they are not useful to them.

The experience of using the tax source and then comparing this source with other truly statistical data (see below) has shown that it produced no particular bias due to its origin. In particular, there is no under-reporting specific to the tax documents: when enterprises hide part of their income, they do so consistently, both in their responses to statistical questionnaires and in their declarations to the administration.

In parallel, the statistical services have developed a specifically statistical set of questions, which are also structural, on enterprises and establishments. This is the annual production survey (EAP) in industry, and the annual sectoral survey (ESA) in services. These two systems cover the entire scope of non-financial non-agricultural enterprises.

Information provided by the EAP and ESA is based on the same accounting data as that from the tax source. The surveys include a more in-depth study of production and the factors of production, and of the restructuring that has affected the enterprise over the period in question. They contain sections on each major type of activity (industry, construction, transport, trade, services). The questionnaire has also been extended to the establishments – in the sense of local units – that make up the enterprises: the content remains very limited, however. Large units are surveyed exhaustively, and small or medium-sized units are only sampled.

The two sources – exhaustive tax source and sample survey – are compared via ESANE. It is then possible to:

- reconcile the two sources when contradictory information appears for the same unit in the two sources (e.g. on the principal activity, on whether the unit is still active or not);
- extrapolate the results of units responding to EAP or ESA to the entire scope of the investigation (units not appearing in the survey plan, or units that received questionnaires but did not respond) in order to provide homogeneous information for all active enterprises.

ESANE provides aggregated data on non-financial enterprises covering their entire scope, based on concepts of business accounting, but organised in a similar accounting framework to that which will be used later in the national accounts.

However, ESANE is not directly exploitable by the national accountants, who must first make a number of adjustments to the data. The purpose is to:

- adjust the scope of the aggregates, the main aim being to exclude activities that are present in ESANE but estimated by the national accountants using a functional approach (as in agriculture and social action in particular);
- guarantee temporal consistency of the changes measured in national accounting. From one year to another, ESANE undergoes regular adjustments not only to ensure complete coverage, but also to improve the extrapolation methods for units missing from the accounts (for example, the extrapolation needed when a unit transmits its accounts to the tax authorities too late for inclusion in ESANE, and when the surveys show that the enterprise under consideration is still active), and to correct any errors found in the source data (in terms of compatibility or the survey) and which could already be present in the figures for previous years in ESANE. The national accounts neutralise any such phenomena in order to not to distort the economic changes they are describing.

These different adjustments and corrections are made to the ESANE data by means of a dedicated interface to be used specifically by the national accounts to exploit the ESANE data. This interface is not simply the aggregation of private accounting documents. It is first and foremost an accounting framework, based on the conceptual framework of national accounting. It uses information from private accounting, but does not take all documents into account, especially those related to assets and the principles of prudence. In this way, certain costs are eliminated as well as all depreciation and provisions.

In addition to these adjustments, the transition to the national accounts also includes:

- correcting original data to take account of fraud and the underground economy;
- making conceptual adjustments to the business statistics variables;
- and taking into account the constraints of quadruple entry accounting when harmonising with the accounts of other agents.

### **ESANE data and GDP calculation**

Once the above process is completed, the national accountants have elements from ESANE which are present in each of the approaches used to calculate GDP.

These data form the starting point for calculating the accounts of non-financial corporations and non-agricultural unincorporated enterprises. They contribute to evaluating primary income – compensation for employees and operating surplus or mixed income – which make up the main counterparts of value added generated by these enterprises.

By determining the level of sales and capitalised production of non-financial enterprises, and breaking them down by activities/products, these data help to evaluate the main component of production by the branches, and contribute to calculating GDP through production.

Lastly, these data play a threefold role in the approach to GDP by demand:

- a direct role, in that GFCF and inventory change can then be calculated, from the standpoint of acquiring/holding companies;
- a direct and partial role, in that sales data from retail trade play a key role in estimating household final consumption expenditure on goods;
- an indirect role, in that they participate in the process of calculating product output at the detailed level of supply and use balances, which is the framework for validating/estimating the components of demand.

### **E. Activities where an institutional approach is not used**

Under this heading there are two different situations:

- there are some activities which, when compiling the national accounts, are not measured by determining beforehand the institutional units that carry out this activity; they require what is sometimes called a functional approach: this is the product approach;
- activities of NPISH.

### **Product approach**

The product approach is applied to the products of agriculture, forestry and fishing, to goods produced by households, to dwelling services and domestic services.

#### ***Products of agriculture, forestry and fishing***

Although farms are becoming much better integrated into the structural business statistics system, ESANE is only really exhaustive for agricultural enterprises operating as companies. For this reason, in the French accounts system, agricultural activity is recorded via its products, which are known from agricultural statistics.

Thus the production of agricultural products is calculated as follows: quantities x price. The calculation of value added requires statistical elements about farms which are not to be found in structural business statistics, and which are used to make an initial evaluation of many items in the overall account of the enterprises concerned.

The same procedure is applied for forestry and fishing.

#### ***Goods produced by households***

Agricultural statistics can also be used to calculate production of agricultural products by households which are not farming households. This production falls within the scope of production in ESA 2010.

Analogous calculations can be carried out to evaluate all food products, attributable to the agrifood industry (NACE 10), produced by households for themselves.

Some of the production of building products (NACE code 41) is also attributed to households.

### ***Dwelling services***

Dwelling services include not only rents actually paid by tenants to landlords, but also imputed rents, i.e. rents that are attributed fictitiously to owner-occupiers. The calculation method used removes the need for this distinction, as it consists of applying an identical rent to the entire living space of all dwellings in the same category.

There is a satellite account for housing, prepared by the statistical office of the ministry concerned. The central framework of the national accounts incorporates the evaluations in the satellite account fully.

### ***Domestic services***

Domestic services are services that households produce for their own consumption using paid staff. Three categories of staff are considered: domestic workers in the home, childcare providers, and building caretakers and janitors.

### ***Reconciling with institutional sector accounts***

The procedure that is most often used in the French national accounts is based on data from the institutional units and sectors, which are used to compile the activities and products accounts. When, as is the case in this sub-section, the starting point is the product, then the procedure is reversed to achieve overall consistency in the national accounts.

The simplest example is that of domestic services that can be attributed entirely to the household sector.

In the case of agricultural and non-agricultural goods a distinction is required within the household sector between, on the one hand, unincorporated enterprises and on the other, households excluding unincorporated enterprises (sometimes referred to as “pure households”). This distinction, which does not exist in ESA 2010, is useful in practical terms, as it corresponds to what is found in the information system.

The procedure can be summarised as follows:

- the first step is to isolate production that is not produced by an enterprise identified as a corporation or an unincorporated enterprise, and which is therefore attributed to households that are not unincorporated enterprises;

- the second step consists of using the ESANE data for the corporations concerned to allocate part of the remaining production to non-financial corporations;
- the rest is allocated to unincorporated enterprises.

A similar method is used to break down dwelling services by institutional sector. The services concerned are those which correspond to effective rents. Data on general government units, non-financial corporations and non-financial enterprises (some unincorporated enterprises may be concerned) indicate what rents should be attributed as their principal activity or secondary activity. The balance goes to pure households.

### **Activities of NPISH**

The activities of NPISH appear in this section because they are not found in the French national accounts through the systematic annual tracking as institutional units, which is the type of approach used, for example, for non-financial enterprises.

The method used was to evaluate the NPISH accounts for a base year using a globalising procedure, then develop it annually using indicators.

Units that are considered as belonging to the NPISH sector can be divided into 5 categories.

1. political parties
2. trade unions
3. cultural associations, excluding the following:
  2. churches under the Concordat of Alsace-Moselle, which are covered by the State budget, and classified in general government
  3. religious congregations, whose members are not isolated from households
4. foundations, under the Law of 23 July 1987, which do not have a single purpose or a single vocation. From these are excluded enterprise foundations and many others of which the only activity is to manage an establishment (museum, retirement home, etc.). Indeed, when there is an unequivocal link with another unit, the principle adopted is to attach the foundation to this unit.
5. some associations governed by the 1901 Act, which created the legal framework for non-profit associations.

The first four groups are clearly defined: they include units which are clearly already established as NPISH. Associations, however, which form the largest group in macro-economic terms, are defined according to legal criteria. This group includes units that could be classified in institutional sectors other than NPISH. It was therefore decided to define the scope of associations that would be classified in the NPISH sector through the activities that they were likely to be involved in.

The activities selected resulted in the following being classified as ISBLSM:

- associations carrying out charitable and humanitarian work (including those funding medical research)

- associations to defend the interests of households
- leisure and young people's associations
- sports associations
- cultural associations, unless they originate in local authorities
- private teaching establishments when they are run by associations

In base 2005, an in-depth study was made of the scope of social action, resulting in a revision of the sectoral classification of certain families of establishment operating in this field so that establishments that were mostly managed by associations (especially establishments for the disabled and people facing social difficulties) were classified as NPISH.

Other associations governed by the 1901 Act are not classified in the NPISH sector because they are of a market nature, and are mainly at the exclusive service of units that belong to the corporation sectors (this is the case, for example, for employers' organisations or federations), or because they are controlled by general government.

## CHAPTER 3 THE PRODUCTION APPROACH

(This chapter should be around 50-100 pages in length. If dominant approach may be more)

### **Preamble: Relationships between production and income approaches**

Regarding production, domestic product for the national economy is equal to the sum of:

- value added at basic price (B.1G);
- and taxes on products (D.21) less subsidies on products (D.31).

Using this approach, value added is defined as the difference between the production (P.1), at basic price, and intermediate consumption (P.2), at purchaser's price, of resident units of the economy. Taxes and subsidies on products relate to transactions on goods and services occurring within the economic territory.

The expression usually used to define domestic product in terms of the national economy is the sum of:

- compensation of employees (D.1);
- operating surplus (B.2) and mixed income (B.3);
- taxes on production and imports (D.2) less subsidies (D.3).

For this expression to define domestic product, the income in question is that which is generated within the national economy, i.e. by the resident units. This also applies to all taxes and subsidies concerned which are, by definition, either positive or negative primary income, derived from activity on the economic territory.

When expressed in this way, these equations essentially only provide two different ways of defining and/or presenting value added. Whereas in the production approach, value added is a balance, resulting from the difference between production and intermediate consumption, in the income approach it is obtained from the sum of its parts: we are therefore comparing a "top down" definition to a "bottom up" definition. One may wonder how the two approaches differ. In this context, it seems that it is mainly the content of the income approach and the conditions of its autonomy which need to be clarified.

#### *Conditions for an authentic income approach*

An income approach that is a true alternative to the production approach would start from the perspective of the units which benefit from the income, and not that of the units generating it. For example, one could start with the wages received by resident employees and move up to wages paid by resident producers.

As the operating surplus – and mixed income – is an interim calculation balance in the sequence of accounts, when using such an approach it would be reconstituted from sources relating to property income received by resident units, and data on undistributed profit of companies and other producers. Such a procedure would of course have to take into account primary income flows with the rest of the world.

In other words, an integral income approach could take as its starting point primary income received by economic agents, and for some even their disposable income, to calculate the

primary income generated in the economy, and then by “moving up” the sequence of accounts, obtain the value added and the domestic product. To a certain extent, this would be calculating domestic product from an autonomous estimate of national income.

An approach of this type assumes, in particular, the existence of reliable information on household income, from tax sources for example. It also assumes that information on the producers is sufficiently complete for the conceptual transition from undistributed profit to national accounting operating surplus to be made clear.

#### *The “weak” income approach*

A less ambitious income approach would be to consider the situation from the perspective of the units that pay income. Unless this is seen as simply another way to present value added, such an approach could be considered as competing with the production approach when the statistical units are different from one approach to the other. The statistical unit that is usually preferred in the production approach is the production unit which is most immediately observable: this unit is the establishment, designated as the local kind-of-activity unit (LKAU) in European statistics. From the information collected from the establishments it should, in principle, be possible to prepare a first version of their generation of income account. Sometimes however, statistical observations are incomplete and for some activities it is necessary to make up for the absence of data on establishments via indirect methods: measuring production by multiplying quantities by price and applying value added rates that are more or less exogenous, applying per capita amounts of value added to the employed workforce, etc.

In other words, the statistical systems are not always able to provide a generation of income account for all activities. The production approach is then limited to establishing a single production account for the whole economy. This is usually obtained by aggregating production accounts from the different activities (or branches).

A statistical information system on institutional units which is able to calculate directly the value added counterparts of institutional sectors can then provide an alternative evaluation of value added by compiling the generation of income account for the national economy, and in this way there are two autonomous domestic product approaches.

It must be understood, however, that in this case a duality of approaches reflects a deficiency in the observation system in respect of the productive system, rather than the result of a deliberate methodological choice. This is why the term “weak” is used to describe this approach. Indeed, in the case of a true income approach, we compare an evaluation starting from the perspective of the agents receiving the income with an evaluation from the perspective of the units that generate it – the production approach.

In the situation described here, we compare an evaluation based on data from one type of unit, which may be approximate or reconstituted – the establishment – with an evaluation based on information from another type of unit – the institutional unit.

These two types of unit are not independent, however. SNA 2008 and ESA 2010 recall the hierarchical link that unites an institutional unit with its establishments. The existence of this link can be seen, for example, in the measurement of production: ultimately, the value added of an institutional unit is the sum of the values added of its establishments.

As a result, SNA 2008 and ESA 2010 introduce into the central accounting framework a table linking production and generation of income accounts in the institutional sectors to those in the branches of activity. Preparing a table of this kind often requires an overall summary to be produced.

#### *Limited independence between the respective approaches, production and income*

As a result, the independence between the production approach and the income approach, in its weak sense, is limited for a certain number of activities and institutional sectors.

This is primarily the case for non-market activities of general government and non-profit institutions serving households. The conventional measures of production, totalling costs and operating surplus, result in a pre-established unicity of the measure of value added. Moreover, in this case there is no autonomous expenditure approach since final consumption expenditure related to the products of these activities is equal to their production, with some adjustments.

Regarding financial activities – financial intermediation and insurance – it should be noted that the information available on them, especially when it derives from supervisory bodies, usually covers the institutional units that carry them out, taken as a whole. Even their secondary activities, which are normally limited, can be known at this level. Knowledge of their activity does not involve observation at establishment level. In addition, conventional measurement of their production closely determines, through its content, the extent of their operating surplus. For example:

- the production, value added and operating surplus of financial intermediaries would be different if, instead of including the contribution of indirectly measured services, only that of invoiced services appeared;
- the same would be true of insurance if only premium supplements were used to calculate production.

Thus for these activities, calculation of value added and of operating surplus are very much integrated and require a knowledge of transactions that do not normally appear in the generation of income account. This requires information covering all accounts of the units concerned, which can only be obtained at institutional level. The production and income approaches are interdependent here.

Finally, it is only for non-financial market activities, carried out by non-financial corporations and households, that it may be possible to proceed using two production and income approaches, which are nevertheless **more complementary than competing**.

#### *Production and income approaches in the French national accounts*

When examining relationships between the production and income approaches, the focus should be on units which have non-financial market activities as their principal activity. In the national accounts of the French economy, these units contribute around 75% to total value added.

In this set of results, it would seem that the definitive version of the French accounts does not follow the reference model outlined above where comparisons are made between an evaluation of value added based on production data collected at establishment level, and

evaluation of value added based on a knowledge of primary income distributed by the institutional units. Furthermore, data on establishments are largely absent from the sources used for the French national accounts.

Only agriculture and the rental of dwellings apply an authentic production approach, via:

- identification and evaluation of the products of these activities, resulting in the evaluation of production;
- identification and evaluation of products in the intermediate consumption category.

The cases of forestry and fishing are similar to that of agriculture. For these activities, there is not really an income approach, but only a presentation of value added between components, which is distributed between the institutional sectors concerned.

In other activities, those involving enterprises whose data are collected in ESANE, the starting point is with the institutional units, i.e. the enterprises:

- first of all, an institutional approach is applied to value added in terms of income;
- sales by enterprises are the starting point for evaluating production in the sectors of activity concerned.

The value added of enterprises is then broken down into sectors of activity. It is deducted from sector production and is thus used to calculate intermediate consumption by the sector and this, when broken down by product, can be linked with the product accounts (“supply and use balances for products”) using an input-output approach. What is important to note is that for the non-financial enterprises covered by ESANE, the production and income approaches are interlinked, and ultimately are not autonomous one from the other concerning the calculation of value added.

In the terminology of the French national accounts, the “transition from sector to branch” is often described to refer to the switch, in the form of matrices, between institutional units grouped into sectors, sub-sectors or pseudo-sectors – non-financial enterprises and unincorporated enterprises – sometimes divided up by principal activity, and the branches or products: these transitions can refer to sales, production, value added or any other operation (GFCF, inventories, etc.).

#### *Choice of presentation*

It is usual to show the sources and methods used when applying the production approach and presenting these in terms of activities; for the income approach, sources and methods are presented based on types of income.

This double presentation does not seem suitable for an in-depth understanding of the methods used in the French national accounts. Let us take the example of non-financial enterprises (non-agricultural):

- as far as GDP is concerned, it is relatively immaterial whether their value added is treated as being in one activity rather than another, since it is calculated in exactly the same way for the entire scope of enterprises and then broken down by activity;

- moreover, the same sources are used, i.e. corporate accounting data, to calculate compensation of enterprise employees and the operating surplus of the same enterprises, since certain adjustments applied to one of these items have a counterpart in the other.

Thus it is more appropriate to acknowledge the fact that the French accounts are based on a largely institutional standpoint, and so in this chapter we adopt a presentation that follows that used in the Annex to Chapter 1 to structure the description of the account information system. The description of the transition from basic data to evaluations of the national accounts should therefore be simplified. This does not prevent the link between groups of institutional units and detailed activities in the support tables being made in the chapter on production.

Finally, it should be noted that French national accounting data are published, using the production approach, **by homogeneous branch of activity and not by sector of activity**. While this presentation has the advantage for users of presenting an economic logic, it does not take into account the way data are compiled. Data sources are available by sector of activity and most of the conceptual adjustments are applied by sector of activity. For the purposes of this inventory, we have therefore favoured an approach by institutional sector and by sector of activity, which follows the different stages in preparing the accounts better. **For this reason, the final data in the output process tables of the national accounts, by sector of activity, can often present some notable discrepancies with the data published by branch of activity.**

### 3.0. GDP according to the production approach

- 1) Provide a table describing the breakdown of output, intermediate consumption and gross value added by NACE sections. It should be consistent with the information provided in the Process Tables.
- 2) Provide a table describing the breakdown of output, intermediate consumption and gross value added by NACE sections and institutional sectors (S11-S15).

### 3.1. The reference framework

- 1) Describe the business register and other registers of units used in the production approach.

#### NON-FINANCIAL ENTERPRISES SECTOR (ENF, S.11 + S.14AA)

The reference population is the SIRENE register of legal units. This database contains over 5 million legal units. They do not all match the desired scope. A filter is applied to the register using individual information that is stored there (legal status, sector of activity, operator code). After this selection 3 to 4 million units remain, which make up the theoretical scope of ESANE (see Chapter 10.1 on the ESANE data source). Ultimately, the ESANE population is found to be around 3 million enterprises (excluding agricultural and financial activities), after inactive units have been removed (the criterion for removing units is that they have been absent for a prolonged period from the population of tax filers (source: à l'écoute d'une Sirène). This data source also includes financial auxiliaries and holdings.

The treatment of agriculture, forestry and fishing activities is specific and does not use SIRENE, although enterprises in these sectors are required to register. Indeed, the accounting data retrieved for these areas are of a poorer quality overall than the other sectors of activity, mainly due to the preponderance of small enterprises. In addition, the Ministerial Statistical Office at the Ministry for Agriculture monitors production in these sectors very closely via a system of surveys at a very detailed level of products, and is thus able to produce an agriculture account (notably with estimates of production, intermediate consumption and value added) which is reliable both in value and in volume. In these circumstances, for this sector of activity the national accountants prefer to use survey data rather than accounting data of uncertain quality (see section 3.7).

## FINANCIAL ENTERPRISES SECTOR (EF, S.12 + S.14AF)

### **Financial agents**

In France, as in most other countries, banking activities, the provision of investment services and payment services and the issuing and management of electronic money are the preserve of authorised enterprises, subject to special monitoring by the Prudential Supervisory and Resolution Authority (ACPR), an authority under the aegis of the Banque de France. This system is regulated by the French Monetary and Financial Code, and is justified by several concerns, in particular public protection and monitoring currency and credit.

The ACPR is competent to issue authorisations, but also to withdraw them in instances where there is a cessation of activity or the enterprise no longer fulfils the conditions or commitments on which the authorisation was based, or as a disciplinary measure.

Depending on the activities in which they are engaged – banking, investment services, payment services, issuing and management of electronic currencies – financial enterprises are accredited in one of the following categories (these first 7 categories can be consulted in the REGAFI register – the Financial Firms Register):

- 1) Banks and other credit establishments,
- 2) Finance companies (which cannot receive repayable funds from the public),
- 3) Investment companies (note: asset management companies are approved by the AMF (Financial market regulator)),
- 4) Payment institutions,
- 5) Electronic currency institutions,
- 6) Foreign exchange services (also called bureaux de change),
- 7) Agents authorised to carry out payment services on behalf of and under the responsibility of credit establishments or payment institutions.

The Financial Firms Register (REGAFI) records enterprises, both French and foreign, that have obtained authorisation from the ACPR to carry out their activities in France. It also records those agents in French payment institutions who carry out their activities both in France and in another State party to the European Economic Area agreement.

In cases where an enterprise is foreign, the register specifies whether it carries out its activities via its French office or directly from the country of origin (freedom to provide services procedure, reserved for enterprises located in a State which is party to the European Economic Area agreement). However, the register does not record payment institutions and those issuing electronic foreign currencies whose authorisation to carry out their activities in France is via a branch office, with freedom to provide services, via agents or distributors of electronic currencies. In such cases, it is important to refer to the registers produced by the authorities of the country where the head office of the enterprise is located.

For each enterprise registered with the ACPR, the REGAFI register gives a list of the banking activities, investment services and payment services they are authorised to carry out in France.

The registration of an establishment is considered as being withdrawn when this establishment is the subject of a decision to remove authorisation issued by the ACPR at its request or automatically in cases provided for by law and while it is still authorised for a transitional period to carry out only those banking activities or investment services that are strictly necessary in order to settle the situation.

### **Insurance companies**

Companies wishing to carry out insurance or reinsurance activities must have authorisation from the ACPR. The companies concerned fall under the provisions of the Insurance Code, the Mutuality Code and the Social Security Code. In this context:

The following are governed by the Insurance Code:

Insurance and reinsurance companies incorporated under French law

Branch offices of insurance companies in non-EU countries

The following are governed by the Mutuality Code:

Mutualist bodies (mutual funds and unions of mutual funds)

The following are governed by the Social Security Code:

Provident institutions

For direct insurance companies to become authorised, they must comply with three principles:

- The principle of speciality: an insurance company can only practise those transactions for which it has obtained approval. However, it may be authorised, under certain conditions, to provide guarantees on behalf of other approved companies with which it has made an agreement to that effect.
- The principle of specialisation: companies are approved to carry out activities exclusively in life insurance or non-life insurance. Nevertheless, this principle may be eased to cover all types of personal risk, and companies approved for life insurance can also be approved to cover the risk of illness and accident.
- The principle of approval by branch: branches are defined at EU level. There are 18 EU non-life branches and 6 branches in life insurance in France to which is added the special branch of tontines (only under the Insurance Code). Insurance companies are

authorised to carry out activities in all these branches, while the scope of activity is more restricted for mutual funds and provident institutions.

All insurance companies in activity can be identified from the ACPR registers.

### **Investment funds**

The Autorité des marchés financiers (AMF) authorises the creation and distribution of collective investment schemes. The Asset Management Directorate (DGA) at the AMF is responsible for examining authorisation applications and for monitoring collective investments. It also supports professionals by regularly publishing doctrine adopted by the Board of the AMF, as well as practical guides. The AMF registers list all the active investment funds.

Among the different types of investment funds, the main ones are Undertakings for Collective Investments in Transferable Securities (UCITS), which are collective investment undertakings governed by Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009. They can take the form of mutual funds (FCP) or open-ended collective investment schemes (SICAV).

Alongside UCITS there are Alternative Investment Funds (AIF) which raise capital from a number of investors in order to invest it in their interest, in accordance with an investment policy defined by the AIFs or their management company. In particular, there are:

- general-purpose investment funds;
- funds of alternative funds;
- private equity funds (retail private equity investment funds (FCPR), innovation private equity funds (FCPI) and funds for local investment (FIP));
- professional general-purpose funds;
- employee investment undertakings (enterprise investment undertakings (FCPE), open-ended employee share ownership collective investment schemes (SICAVAS));
- real estate collective investment undertakings (OPCI: real estate investment funds, open-ended predominantly real estate collective investment schemes (SPPICAV));
- professional real estate collective investment undertakings.

## **Central Bank**

Sub-sector S121 includes units that fulfil the functions of a central bank as defined in ESA. The following are classified in sub-sector S121: the Banque de France and the French overseas departments' note-issuing bank (IEDOM). Their area of activity therefore coincides with the economic territory used in the national accounts. Information from these units is largely in the public domain, in order and complete.

## **Caisse des Dépôts et Consignations**

The Caisse des dépôts et consignations (deposit and consignment office) and its subsidiaries constitute a public group serving the public interest and the country's economic development. This group fulfils its public interest missions by supporting public policies carried out by the State and the territorial authorities, and may engage in competitive activities. The Caisse des dépôts et consignations is a special institution responsible for administering deposits and consignments, providing services relating to funds whose management has been entrusted to it and exercising other similar powers that have been legally delegated to it. It is responsible for protecting people's savings, for funding social housing and managing retirement bodies. It also contributes to local and national economic development and, particularly in the fields of employment, urban policy, the fight against banking and financial exclusion, enterprise creation and sustainable development. The Caisse des dépôts et consignations is a long-term investor and contributes to the development of enterprises in line with its interests.

The Caisse des dépôts et consignations is placed under the supervision and the guarantee of the legislature. It is organised by decree of the Council of State, based on a proposal from the supervisory commission. It submits its accounts to the Banque de France.

## **COFACE**

COFACE (French insurance company for foreign trade) is a public body with some specific features. It insures French companies against the risks involved when exporting. It operates on its own account and on behalf of the State. Its own transactions are included in the ACPR data. Transactions for the State can be traced via a special accounting process. COFACE is a unique institutional unit, all of whose activity is recorded in insurance transactions. It submits its accounts to INSEE via the Treasury.

## **Financial auxiliaries**

Financial auxiliaries are monitored directly via the structural business statistics in ESANE, as all financial auxiliaries are legally required to be registered in SIRENE.

## GENERAL GOVERNMENT SECTOR (S.13)

Virtually all units in the general government sector have their accounts centralised through the Directorate General of Public Finances (DGFIP), where they are formatted to be compatible with the national accounts.

However, some of the units whose accounts are submitted to centralised accounting by the DGFIP are excluded from general government because of their market nature. Less frequently, some units included within the scope of general government are not subject to centralised accounting by DGFIP (e.g. SAGESS – limited company for the management of

strategic oil reserves). In this case, their accounts are recovered via ESANE as they are registered in SIRENE.

### PURE HOUSEHOLDS SECTOR (S.14B)

To evaluate the dwelling services produced by households (as landlords or owner-occupiers), the list of dwellings is provided by the population census.

As producers of domestic or personal services, households are supposed to declare their employees to the department that collects social security contributions. It is therefore the Central Agency of Social Security Associations (ACOSS) which provides information with which to track all households that are domestic or personal service producers.

### NON-PROFIT INSTITUTIONS SERVING HOUSEHOLDS (S.15)

Enterprises, associations, foundations, etc. within the scope of NPISH are required to be registered in SIRENE. Thus it is via SIRENE that all units that are NPISH can be tracked.

- 2) Provide detailed information on the coverage of the units in the business register.

In accordance with the Commercial Code, the SIRENE register records the identity of all enterprises and their establishments:

- whatever their legal status;
- whatever their sector of activity (industry, trades, crafts, the professions, farming, local authorities, banks, insurance companies, associations, etc.);
- located in Metropolitan France (including Corsica), also Guadeloupe, Martinique, French Guiana, Reunion Island, Mayotte, Saint-Barthélemy, Saint-Martin and Saint-Pierre and Miquelon.

Public and private entities and overseas companies which are represented or that have an activity in France are also registered. In addition, the State or municipal administrative sector in New Caledonia, French Polynesia and Wallis and Futuna, are also registered.

- 3) If there is a cut-off threshold for small units in the register describe the measures taken to include these units for national accounts purposes (alternatively reference may be made to the description of measures taken to address absence of registered and economically active units from statistical files – types N4 and N5 of non-exhaustiveness - in Chapter 7 on exhaustiveness).

There is no size threshold for companies registering in SIRENE. Even very small enterprises which are exempt from the requirement to file a full set of accounts every year with the tax authorities (microenterprises, “auto-entrepreneurs”) must register in SIRENE.

Nor is there any size threshold for companies in registers used to define the scope of financial companies in the centralised accounting managed by the DGFIP, in the housing register used for the population census or in the ACOSS files.

- 4) Describe the treatment of unincorporated enterprises, private non-profit institutions, non-profit institutions serving businesses and non-market producers in the register and their allocation to institutional sectors.

Non-financial unincorporated enterprises are included in the SIRENE register and in ESANE (see Chapter 10.1 on the ESANE data source). They make up the institutional sector S.14AA, a sub-set of the households institutional sector S.14. Most are required to file a full set of accounts every year with the tax authorities, so that their account is prepared based on the same sources as for companies. However, for some small unincorporated enterprises (microenterprises, auto-entrepreneurs) social security and tax formalities are simplified and they are only required to declare their turnover: for these units specific assumptions must be made in order to impute a full set of accounts.

Private non-profit institutions (associations, foundations, cooperatives, etc.) must also register with SIRENE if they wish to employ staff.

Non-profit institutions serving businesses are part of institutional sector S.11. They are included in the SIRENE business register but some are not included in ESANE. For this reason their data may give rise to adjustments for exhaustiveness (see Chapter 7 on exhaustiveness).

Financial unincorporated enterprises, which make up sector S.14AF, must also be registered in SIRENE, and their accounts are available via ESANE.

- 5) Describe the measures taken to update the business registers (alternatively reference may be made to the description of measures taken to address absence of registered and economically active units from statistical files – types N4 and N5 - in Chapter 7 on exhaustiveness).

There are many bodies whose role is to declare to INSEE any registrations, terminations and modifications in the register. They contribute on a daily basis to updating the SIRENE register. On average, 10,000 modifications are made every day.

In order to monitor financial enterprises (excluding financial auxiliaries), all the registers are updated continuously by the Banque de France, ACPR and AMF.

- 6) Provide information on the treatment of producer units not obliged to register and the measures taken to include these units for national accounts purposes (alternatively reference may be made to the description of measures taken to address exemption for producers not required to register – type N3 - in Chapter 7 on exhaustiveness)

Not applicable in France (in N3 only production for household own final use is recorded).

- 7) Outline the treatment of producer units deliberately not registering – underground and illegal producers (detailed description of measures taken to address absence from statistical files of producers deliberately not registering – types N1 and N2 – should be made in Chapter 7 on exhaustiveness)

Adjustments are applied on the basis of expert opinion in the non-financial enterprises sector (ENF) for the activity of units with no legal existence which deliberately refrain from registering (which is in any case illegal). These adjustments focus primarily on those sectors of activity where self-employment is most common.

Adjustments are also made on the basis of expert opinion to pure households (S.14 excluding unincorporated enterprises) to include the production of domestic or personal services by households that have not declared their employees to ACOSS.

Regarding illegal production, adjustments are made in respect of the production and trafficking of drugs, also for contraband tobacco.

- 8) Provide information on how the Special Purpose Entities (SPEs) are identified for their inclusion in national accounts.

In the non-financial sectors, SPEs are identified by sectoral experts, who decide on any manual adjustments. The main example is SEP Airbus, a group governed by private law with no single legal identity for legal purposes, which is not in ESANE but is included in the national accounts.

In the financial sector, investment funds with no identity for legal purposes are nevertheless registered with the AMF and thus no adjustment is necessary.

- 9) Provide information on the type of statistical units used in the production approach to GDP (institutional units vs. local kind-of-activity units / enterprise vs. establishment).

In general, the statistical unit is the legal unit. This is not an enterprise in the sense of the Law on the Modernisation of the Economy (LME) of 2008 or in the sense of European Regulation 696-993, nor is it an establishment. Legal units are similar to institutional units in the sense of ESA 2010 in that they are required to maintain full accounts, and also to units of economic activity.

- 10) List the main sources used for each institutional sector and describe in more detail the most important ones (reference may be made to Chapter 10 on the main data sources used).

#### NON-FINANCIAL ENTERPRISES SECTOR (S.11 + S.14AA)

In general, the non-financial enterprises sector consists of enterprises listed in SIRENE which do not belong to the financial enterprises sector, general government and NPISH.

For this sector, the source used is generally ESANE, which is compiled by matching accounting data transmitted by the DGFIP to survey data (EAP and ESA). The surveys are mainly useful as they can break down enterprise production and value added by homogeneous branch of activity (see Chapter 10.1 on the ESANE data source). They have little influence on estimates of total value added, which are based for the most part on the accounting data used by ESANE.

Of course, the estimate of production and intermediate consumption cannot be deduced immediately from the accounting data, if only because the concepts of the general accounting plan (PCG, applicable to all private enterprises) differ on some points from the concepts of national accounting.

However, reconciling these sources also results in a deviation from the accounting data available in ESANE. This is particularly the case when differences appear between taxes, contributions and subsidies as reported in the company accounts, and the figures in the general government account. In such cases, government accounting is assumed to be more reliable than accounting data by businesses and the figure from the government accounting is used. However, we assume that companies know exactly the overall turnover of their business, their external costs, etc., and only make mistakes in the breakdown of major aggregates into sub-items.

The aim of these adjustments is to ensure that company accounts are compliant with national accounting concepts, and that there is consistency between the different sources (necessary as a result of introducing quadruple entry accounting). They are at the heart of the transition to national accounting, described in detail in Chapter 4 on the income approach.

In addition, not all non-financial enterprises obey this basic outline for estimating accounts. One of the main exceptions, already mentioned above, is agriculture, forestry and fishing (section A of NACE): inasmuch as the quality of business accounts is deemed to be poorer in this sector, we prefer to rely on the very comprehensive survey data produced by the statistical office of the Ministry for Agriculture, Forestry and Fishing. From these surveys production and the intermediate consumption of enterprises in the sector can be monitored at a very detailed level.

The second exception relates to social action. Units classified as non-financial enterprises (S.11) appear alongside units classified under general government (S.13) within the scope of accommodation for the elderly and welcome or guidance without accommodation for the elderly. In this area, where the accounting data of private entities is also reputed to be of poor quality, we generally trust the very comprehensive survey data (produced mainly by the Ministerial Statistical Office for Social Affairs) to evaluate total production (S.11 + S.13) and the structure of the production accounts and the generation of income account. Government accounting also provides detailed data for that part of “accommodation for the elderly and welcome or guidance without accommodation for the elderly” which is provided by entities that are part of general government. The account of non-financial enterprises which intervene in the social action sector is deduced from the balance.

## FINANCIAL ENTERPRISES SECTOR (S.12 + S.14AF)

All data for this account comes from the Banque de France, except for financial auxiliaries where the source used is ESANE.

## GENERAL GOVERNMENT SECTOR (S.13)

All data for the account come from accounting sources at the DGFIP. It appears that there are two models for organising the information available on the units in this sector:

- the State budgetary accounting, which obeys some very specific rules;
- the general accounting plan (PCG): most units other than the State apply this directly, or apply instructions of which the principles are derived from the PCG.

Concerning the State, the non-financial account is based on the budgetary accounting which is voted every year by Parliament at the time of the draft budget law (PLF). This accounting is in cash-based data and the aim is to present State expenditure and revenues in a State management approach. This can be broken down into expenditure objectives (missions, programmes, actions, etc.) and by type of expenditure (Heading II for expenditure on staff, Heading III for operating expenditure, etc.). This accounting is reprocessed by the DGFIP to compile accounts that follow the concepts of national accounting. There is also the accrual method of accounting, the general State account, which is mobilised on an ancillary basis to compile the non-financial account as it provides useful information to complement the budgetary accounting. The general State account is also used to prepare the financial account.

For the other sub-sectors, the non-financial and financial accounts are based on accrual accounting with several variations according to the sub-sectors: accounting standard M9 for other government bodies (ODAC), accounting instructions M14 for municipalities, M21 for public hospitals, M52 for departments, M71 for regions, etc., and the unified accounting plan for social security bodies (PCUOSS) for social security funds.

A policy to harmonise accounting was begun in the 1990s. It mainly affected general government and social security bodies: with adaptations introduced to reflect the specific features of the activities and tasks of the different units – the accounting instruction for the regions (M71) is different from that applied to municipalities (M14) -, the PCG now has a general area of application. This is especially true for the topics in the production and generation of income accounts for these units in national accounting.

In addition, State general accounting (CGE) based on the accrual principle was implemented in the course of the 2000s, inspired by the PCG. However, this accounting becomes available much later than the budget accounting. For this reason, it is only used as a secondary tool, to supplement the information provided by the budget accounting.

Preparation of the national accounts for the general government sector consists mainly in making a conceptual transition from the accounting of the units of which it is made up to national accounting transactions. Concerning the sector's contribution to GDP, since it is mainly non-market units whose output is measured by the sum of production costs, the key question concerns the most accurate identification possible of the expenditure that corresponds to the employee compensation and intermediate consumption components.

In this process, it is sometimes necessary to complete basic information, or sometimes reconstitute it. This is the case for consular bodies which, although they come under private law, carry out public service missions and for this they collect parafiscal taxes, and submit only summary statements. This is also the case for units working on social action and so their accounts must be reconstituted from data on employee numbers and on funding received. However, these cases are marginal compared with all the rest.

There are few questions on coverage: all units in the sector are known beforehand either because they are public units or because they are in receipt of public funding and are listed as such.

However, to avoid double-counting, it is important to check that the entities classified in general government do not also appear in the statistical sources of other sectors. To do this, the general government units are identified in an exhaustive nominative list by their SIREN number (with only a few exceptions which are identified). So that there is no double-counting, files are matched, using the SIREN number, between the general government list and the fiscal source, which contains the units of sectors S.11, S.14 and the financial auxiliaries. Other financial corporations are clearly identified by the monitoring authorities. In the current year this verification is done for the other government bodies ODAC (S.13111) which is the general government sector where the population varies most.

The State has its own very particular accounting system. Expenditure and revenues are given in a very detailed statement, which is widely available. The codification of this set of data, which requires the expertise and cooperation of public accountants, is the basis for compiling the national State accounts.

State transactions fall into three groups: general budget, annex budgets and Treasury special accounts. These three sets make up three distinct centres for revenues and expenditure, with no overlap, even though there may be flows from one to another: there is no double-counting among these three sets.

The general budget traces the largest amounts of revenues and expenditure. It corresponds only to non-market activities by the State administrations. In this way it provides an analysis of expenditure, from which production, the more important aspect, can be calculated: the source is the “auxiliary accounting of State expenditure”, which traces the execution of the Finance laws in the greatest detail. The classification includes some 60,000 lines and is only modified slightly each year. An economic code is assigned to each element of classification: there is a table to convert from the economic codes to national accounting transactions. Because this conversion uses the most detailed level of expenditure, generally speaking it is quite unambiguous.

The annex budgets correspond to activities that may generate production, sometimes fairly limited, if only because they all include staff expenses in their expenditure. Identifiable units of production can be assigned to them. Depending on the nature and the structure of their resources, these production units constitute market sectors when sales are predominant, or non-market sectors when they are financed by transfers. The annex budgets also use a presentation similar to that for the PCG. Expenditure is broken down into two sections: one for operations, and the other for capital transactions. Overall, the distinction is the same as that between transactions in the production and generation of income accounts, and capital account transactions. The two sections are broken down according to the nature of the

transactions: intermediate consumptions, staff expenditure, financial expenses, subsidies, etc. There is also auxiliary accounting for expenditure similar to that for the general budget.

The Treasury special accounts correspond to a more varied range of situations. Some are simple accounts – loan accounts, advance accounts, monetary transaction accounts – and record only financial transactions. Earmarked accounts record mainly transfers: their administrative costs are low and borne mainly by the ministries to which they are assigned. When they exist, their goods and services transactions and those recorded in the generation of income accounts are thus assigned to the corresponding non-market branches.

Only trading accounts record transactions relating to activities on significant goods and services. For some - military subsistence allowances, supplying armies with oil products -, they are activities which are supplementary to the State's non-market activities: their transactions are then assigned to these activities. However, some trading accounts record production transactions carried out in separate establishments and which are market transactions. In this case, market sectors are identified. In addition to the information normally provided by the auxiliary accounts for expenditure and revenues in State accounting, for the trading accounts layouts are similar to the PCG so that the transition to national accounting transactions is possible.

#### PURE HOUSEHOLDS SECTOR (S.14B)

To evaluate the dwelling services produced by households (as landlords or owner-occupiers), rents are estimated by extrapolating results from the National Housing Survey to all recorded dwellings. Various survey sources are used to evaluate intermediate consumption and hence deduce value added.

Evaluation of households as producers of domestic or personal services is based on data declared by the households to ACOSS when they employ staff.

#### NON-PROFIT INSTITUTIONS SERVING HOUSEHOLDS SECTOR (S.15)

Production by NPISH, which is non-market, is evaluated as the sum of production costs. Both survey data and administrative data are used (wages declared by these units to social bodies when they employ staff, public accounting data on subsidies received by these units). The surveys used cover mainly social action and the associations sector.

11) Provide information on the extent the following requirements relating to the quality of the statistical sources used for the production approach are met:

- a) Are annual data collected on all activities of production through regular enterprise surveys?
- b) For the activities surveyed, are all size classes covered?
- c) Are periodic surveys carried out regularly (for surveys carried out less frequently than every year)?
- d) Are ad-hoc surveys conducted to complement regular inquiries?
- e) Are administrative data obtained on a regular and timely basis in order to have good quality estimates quickly?

### NON-FINANCIAL ENTERPRISES SECTOR (S.11 + S.14AA)

Accounting data are transmitted every year to INSEE via the DGFIP for the entire scope of ESANE. Other administrative sources are also used every year, such as those in ACOSS (especially for evaluating the activity of auto-entrepreneurs).

Further annual surveys are carried out to enhance the accounting data available. These are the annual production survey for legal units in industry and the annual sectoral survey for legal units in other sectors of activity. These surveys are mainly used to break down production into branch of activity, but they have no impact on the evaluation of activity by non-financial enterprises overall, which is derived from accounting data. Another annual survey is used, the leasing survey. To date, no multi-annual or ad hoc survey has been used.

The annual production and annual sectoral surveys cover all sizes of enterprise: the largest enterprises are surveyed exhaustively and the smallest are sampled. The leasing survey covers all enterprises authorised to carry out leasing.

### FINANCIAL ENTERPRISES SECTOR (S.12 + S.14AF)

All administrative data collected by the Banque de France are transmitted every year to INSEE; no survey is involved. For financial auxiliaries, we use the accounting data in ESANE, without using survey data.

### GENERAL GOVERNMENT SECTOR (S.13)

Every year, the DGFIP provides INSEE with the accounts for all units for which it centralises the accounting. For local authorities, the exhaustiveness of the information that the DGFIP provides is assured by the fact that the management accounts of each territorial authority must be kept by a Treasury accountant. In addition, Article 26-3° of the Organic law of 1st August 2001 relating to the finance laws (LOLF) established the principle of depositing the funds of territorial authorities and their public establishments exclusively with the State.

No surveys are used for general government.

### PURE HOUSEHOLDS SECTOR (S.14B)

The National Housing Survey is carried out approximately every 6 years: in base 2010, accounts were prepared on the basis of results from the 2006 survey. However, other surveys are used to evaluate household activity in the production of dwelling services, some of which are carried out annually, like the Rent and Charges survey.

Evaluation of households as producers of domestic or personal services is based entirely on administrative data provided every year, and no survey data are used.

### NON-PROFIT INSTITUTIONS SERVING HOUSEHOLDS SECTOR (S.15)

The administrative data held by social bodies or public accounting are provided to INSEE every year. However, the survey data used are collected multi-annually, notably every four years for surveys in the social action sector.

### **3.2. The borderline cases**

1) Provide information on how the inclusion of the following borderline cases in production is ensured:

a) Own-account gross fixed capital formation (GFCF) including, in particular:

- i. mineral exploration,
- ii. machine tools produced by engineering enterprises,
- iii. construction or extensions to dwellings by households and communal construction undertaken by groups of households,
- iv. entertainment, literary and artistic originals,
- v. software, research and development;

#### ENTERPRISES (S.11 + S.12 + S.14AA + S.14AF)

For non-financial and financial enterprises alike, there is an exclusive counterpart to production for own final use (PEFP, see P.12), that of gross fixed capital formation (GFCF).

In most cases, French accounting standards require enterprises (non-financial and financial) to capitalise production for own final use: national accountants then simply take the data relating to capitalised production in the corporate accounts. However, in two instances the accounting standards do not require enterprises to capitalise their production: this is in the own-account production of software and databases on the one hand, and research and development on the other. Specific treatments are therefore required (see below).

Corporate accounts take the fixed assets of enterprises into consideration in production costs, i.e. by withholding purchases made for this purpose, payroll costs and the relevant depreciation. The accounting data are therefore adjusted to align them with the evaluation method applied in the national accounts. In particular, evaluating production for own final use includes an estimate of the return on capital: to do this we apply to the capitalised production the mean of coefficients  $B.2N/(P.11+P.12)$  for the last three known years.

#### *Software production for own final use*

The method used to measure PEFP of software and databases is taken from the *Handbook on Deriving Capital Measures of Intellectual Property Products* by the OECD. This method is based on payroll for occupations likely to produce software and databases. An average time spent on software and database PEFP (maximum of 50% of working time) is allocated to each occupation. The list of occupations is completed to take into account database PEFP. Next, from the payroll of those involved in PEFP, we extrapolate social contributions, the cost of

materials (IC and CFC) and the gross operating margin. The payroll of the occupations concerned is measured from the annual declarations of social data (DADS) from the private and semi-public sector.

#### *R&D production for own final use*

In practice, the estimate for R&D PEFP uses data from the R&D survey carried out by the Ministry for Higher Education and Research, available from the beginning of the 1960s. This survey of enterprises and general government provides a means of isolating R&D expenditure according to external purchases or internal R&D. Data from the latter are used to estimate enterprise R&D PEFP.

### GENERAL GOVERNMENT (S.13)

As for enterprises, public accounting standards require that the entities concerned capitalise their PEFP, except in the case of software and R&D. Adjustments are therefore only needed in these two instances.

#### *Software production for own final use*

The method used to estimate corporate software PEFP is not applicable to general government as the files for employees' compensation do not isolate those employees who are likely to produce internal software. To estimate software PEFP by general government, we use the results from a survey carried out in 1992 (and not repeated since) by the directorate of electronic and computer industries which showed that the value of the annual internal software output by general government corresponded to around 2/3 of its external spending on software. This coefficient was therefore applied to external purchases of software by general government to evaluate its PEFP. External purchases of software by general government are themselves evaluated via ESANE, with software-producing companies providing the breakdown of sales by type of customer in the annual sectoral survey.

#### *R&D production for own final use*

The estimate is produced in the same way as for enterprises, since the R&D survey is carried out both for general government and for enterprises. For the scope of public entities, however, the R&D survey does not cover the case of professor-researchers employed in universities who devote some of their time to research. An adjustment is therefore applied to include this research activity.

### PURE HOUSEHOLDS (S.14B)

In the case of households, the only instance of PEFP having a counterpart in gross capital formation corresponds to construction or repair of dwellings by households, directly for their own use.

The estimate is based on knowledge of the value of the building materials purchased by households. This expenditure is known via household surveys – Household budget survey, Housing survey. We can then determine the proportion of total expenditure that is assumed to be used for major work in the dwelling.

The estimate for base 2010 used results from 2005 surveys. The materials selected for

consideration as intermediate consumption by households in their construction activity are materials used for “structural works”. This amount represents almost 50% of total household construction material purchases.

Once the value of the materials used has been determined, value added is calculated by applying the ratio of added value to intermediate consumption of construction materials by unincorporated enterprises carrying out the same activity. The ratio is adjusted to take account of the fact that households cannot deduct VAT from their purchases, whereas businesses can.

### NPISH (S.15)

There is no output for own final use with a counterpart in gross capital formation in accounting for NPISH.

- b) Production, storage and processing of agricultural products for own-account by households;

The production of agricultural products is carried out in family gardens and livestock pens. This production is estimated on the basis of a household survey, updated using production indices of the products concerned. The basis for this estimate is a long-standing one, since the survey was abandoned in 1991.

Agricultural households transform their agricultural products into products for food industries, but which are also for their own final consumption. The estimate comes from farm data.

Agricultural households also produce wood for heating, details of which are known from the forestry statistics. The same statistics are used to measure production destined for sale by forest-owning households.

- c) Dwelling services produced by owner-occupiers;

See section 3.18.

- d) Household services produced by employing paid domestic staff;

The production of domestic services by households employing paid staff covers several activities which are carried out in the same conditions of employment relations. These concern domestic workers in the home, and building caretakers and janitors. In terms of activity, they concern domestic services.

The estimation method is based on payroll evaluation using data from bodies that collect social contributions. A high coefficient designed to take non-declared payroll into account is applied to spontaneous data: this coefficient is the result of the analysis of employment surveys, household budget and other specific surveys.

Production is measured from estimated staff compensation. Only cash compensation is taken into consideration, as compensation in kind would be considered negligible in today's context.

- e) Volunteer activities that result in goods;

No volunteer activity resulting in the production of goods is included in the French national accounts.

- f) Products used for payments in kind;

There are two instances where adjustments are applied. The first is the provision of meals and drinks to employees by hotels and restaurants (section I of NACE): adjustments are calculated by applying a rate derived from labour cost surveys to wages paid by businesses in this sector.

The second is the free provision of dwelling services by employers to their employees (company accommodation). This amount is provided by the housing satellite account (CSL).

- g) Products bartered;

No bartering activity is included in the French national accounts.

- h) Products supplied by one local KAU to another within the same institutional unit to be used as intermediate inputs or for final uses;

Data on establishments are very limited in the statistical system on the productive system, and they do not allow for an additional assessment of deliveries between establishments. Locally, where there are additional statistics on production processes in the manufacturing industry, sector heads consider that flows – under the heading of unsold deliveries – are assumed to correspond to deliveries between the establishments of the same enterprise. This has no impact on GDP since the counterpart for these deliveries is intermediate consumption by the same enterprise.

- i) Products added to the inventories of finished goods and work-in-progress (including natural growth of animal and vegetable products, standing timber and uncompleted structures for which the buyer is unknown).

Usually, the general accounting plan requires enterprises to count inventories of finished goods in the same way as additions to work-in-progress under “stored production”. Therefore, enterprise production estimated from accounting data naturally includes these instances. For inventories of goods held by producers with natural growth of animal and vegetable products and standing timber, see section 3.08.

In the case of construction, the accounting standards of the general accounting plan ensure that the accounts of construction enterprises (especially real estate developers) are able to isolate stored production (not yet sold).

2) Provide information on how the inclusion of the following borderline cases in intermediate consumption is ensured:

- a) Costs of using rented fixed assets (mainly operational leasing);

Rents are treated as expenses in the general accounting plan, and in the same way on tax returns and in the accounts of non-financial enterprises, without the need to carry out retreatment.

- b) Inexpensive tools used for common operations and small devices such as those listed in the ESA2010 §3.89 (f)(1);

Inexpensive tools used for common operations or work are part of intermediate consumption and not GFCF: saws, shovels, knives, axes, hammers, screwdrivers and wrenches or small devices such as pocket calculators. These goods are listed under expenses in the general accounting plan and the same way on tax returns and in the accounts of non-financial enterprises, without the need to carry out retreatment.

- c) Subscriptions, contributions or dues paid to non-profit business associations;

Subscriptions, contributions, and other dues paid to professional non-profit bodies are recorded as “other external expenses” in corporate accounting, and in the same way on tax returns. These subscriptions are therefore treated as intermediate consumption, without the need for any retreatment.

- d) Goods and services received from another local KAU of the same institutional unit that comply with the definition of intermediate consumption;

Data on establishments are very limited in the statistical system on the productive system, and they do not allow for an additional assessment of deliveries between establishments. Locally, where there are additional statistics on production processes in the manufacturing industry, sector heads consider that flows – under the heading of unsold deliveries –are assumed to correspond to deliveries between establishments of the same enterprise. This has no impact on GDP since the counterpart for these deliveries is intermediate consumption by the same enterprise.

- e) Non-life insurance service charges (payments for life insurance should be excluded);

Non-life insurance premiums for business interruption, civil liability or builder’s liability are treated as expenditure by enterprises. In the national accounts, the portion of these premiums that does not correspond to remuneration of the insurance service is deducted from intermediate consumption. The insurance account provides the estimate for the fraction of premiums that corresponds to compensation for an insurance service, by counterpart sector.

- f) FISIM purchased by resident producers;

A retreatment was carried out on intermediate consumption to add the FISIM consumed by resident producers. These data are evaluated by counterpart sector by the financial institutions account.

- g) Research and development acquired to be used solely in the creation of further products of research and development (all other research and development should be treated as GFCF);

The R&D survey interviewed enterprises producing R&D (for market purposes or own-account) on the destination of their products by user industry. In this way, within the total output of R&D sold, it is possible to separate the share bought by R&D enterprises (and hence used as intermediate consumption) from the share bought by enterprises with another activity (and hence used in gross capital formation).

- h) Goods and services used as inputs into ancillary activities;

Goods and services consumed in the context of auxiliary activities are treated as expenditure by enterprises and as intermediate consumption in the national accounts; as a result no retreatment is required.

- i) Expenditure by employees, reimbursed by the employer, on items necessary for the employers' production.

Expenditure by employees on the purchase of goods or services needed for the production process and which are reimbursed by the employer is treated as expenditure by enterprises and as intermediate consumption in the national accounts: no retreatment is therefore necessary.

- 3) Provide information on how the exclusion of the following borderline cases from intermediate consumption and their proper treatment is ensured:

- a) Items to be treated as gross capital formation, e.g. valuables, mineral exploration, major repairs and improvements (renovation, reconstruction or enlargement), software, research and development (with the exception of the R&D acquired to be used solely in the creation of further products of R&D), military weapons;

It is assumed that only households acquire valuables. The question of their exclusion from intermediate consumption of producers of goods and services therefore does not arise.

There is no longer any geological or mineral exploration in France.

In the French general accounting plan (PCG), expenditure on improvements and the addition of elements is treated as fixed assets if they fulfil the following criteria:

- the entity will benefit from future economic advantages linked with the asset
- the value of the asset can be assessed with sufficient reliability.

Expenditure on fixtures and fittings counts as fixed assets. Expenditure on replacements, large-scale renovation and maintenance also counts as fixed assets. All of this expenditure is therefore treated as assets in the source data for business statistics and not as expenditure. In national accounting, it is not treated as intermediate consumption but as GFCF. No retreatment of the source data is required.

Software purchased to be used as an operating resource is recorded as fixed assets in business accounting (PCG). No retreatment is therefore required for intermediate consumption in national accounting.

External expenditure for research and development is estimated from a survey of enterprises by the Ministry for Higher Education and Research. It is subtracted from intermediate consumption. As described above, from this survey it is possible to separate sales of R&D to enterprises producing R&D from sales of R&D to other enterprises. Only this last amount is subtracted from external expenses recorded by enterprises to evaluate intermediate consumption.

Regarding weapons systems, annual State spending on military equipment can be estimated from the budget data (excluding rifles, small calibre ammunition, etc.). This amount is subtracted from State budget expenses to estimate intermediate consumption. No agent other than the State purchases large military equipment.

- b) Expenditure to be treated as the purchase of non-produced assets, e.g. long-term contracts, leases and licenses;

In the French general accounting plan (PCG), contracts, leases and licenses are treated as fixed assets, and the same is the case in business statistics. Consequently, they do not appear in intermediate consumption and no retreatment is necessary.

- c) Expenditure by employers to be treated as wages and salaries in kind;

An adjustment is applied in the national accounts to deduct benefits in kind from intermediate consumption and charge them to wages (D.11), on the same basis as rates applied to wages in the sectors.

- d) Use by market or own-account producer units of collective services provided by government units (to be treated as collective consumption expenditure by government);

The use by non-financial enterprises and unincorporated enterprises of collective services provided by general government units is not recorded in the enterprise accounts as it is not invoiced. No retreatment is therefore made to evaluate intermediate consumption.

- e) Goods and services produced and consumed within the same accounting period and within the same local KAU (to be also excluded from output);

Goods and services produced and consumed during the same accounting period and within the same local KAU are not included in the enterprise accounts. No retreatment is therefore required in the national accounts to remove them from intermediate consumption.

- f) Payments for government licenses and fees that are to be treated as other taxes on production;

Payments made to general government for licences, permits etc. are charged either to fixed assets or to taxes and levies. These payments are therefore excluded de facto from intermediate consumption and no retreatment is therefore required in the national accounts.

- g) Payments for licences for using natural resources (e.g. land) that are to be treated as rents, i.e. as a payment of property income.

From the intermediate consumption provided by the accounting data we subtract a valuation of rents paid for land (this valuation is based on data in the agriculture accounts and local public accounts).

- h) Decommissioning for large capital assets.

At this stage, the question does not arise as there are no decommissioned power stations.

- 4) For borderline cases concerning taxes and subsidies on products reference to the description in the sections 3.28 and 3.29 may be made

See sections 3.28 and 3.29.

### **1.3. Valuation**

- 1) Describe the procedures applied to ensure that output is valued at basic prices. In particular:
  - a) Describe the procedure applied to arrive at the basic prices for market output (e.g. description of instructions on valuation in survey questionnaires). Provide information on whether the basic prices are directly available from the sources used or if adjustments are made in national accounts to ensure a transition from producer's prices reported by enterprises to basic prices.

The source used to evaluate the output of non-financial corporations and unincorporated enterprises, i.e. the accounting data in ESANE, provides output at market cost (producer's price). To switch from output valued at producer prices to output valued at basic prices, taxes on products are deducted from output and subsidies on products are added.

- b) If the latter is the case, adjustments made should be described here (taxes and subsidies deducted and added should be listed); information should be also provided on how the consistency between the scope of taxes and subsidies in this transition and the scope of taxes and subsidies from the government accounts used in the estimation of GDP is ensured.

The following tables list those taxes on products (D.214) that are considered as paid by the producers or by the tradespeople and hence deducted from output in ESANE, likewise subsidies on products (D.319) which at the same time are added to output in ESANE. These amounts come directly from the public accounts, which are considered more reliable than corporate accounting data.

Name	Amount (billions of euros)
<b>Total taxes on deducted products</b>	<b>50.140</b>
Of which domestic duty on consumption of energy products (TICPE)	23.6
Of which duties on tobacco	10.8
Of which duties on gambling and betting activities	3.3
Of which duties on alcohol	3.2

- c) Describe the valuation of output for own final use. If for some groups of products it is valued at the basic prices of similar products sold on the market, they should be explicitly listed.

In general, output for own final use (PEFP) is not valued at the market price of similar products, but according to the costs of production of the products considered.

- d) If output for own final use is valued at the costs of production plus a mark-up for net operating surplus or mixed income (except for non-market producers), all relevant costs elements should be listed and the estimation of the mark-up should be described. The groups of own-account products for which output is valued at the costs of production (plus a mark-up) should be explicitly listed.

The table below gives the list of products for own final use by market producers (non-financial or financial enterprises). For all these products, PEFP is estimated as the sum of the costs of production plus a mark-up.

PEFP is first estimated without mark-up. For agricultural products, software and databases, as well as R&D, the estimate is based on survey data. For all other products, the estimate is based on accounting data since the general accounting plan recommends capitalising own-account production. In their accounts, enterprises value capitalised production as costs of production excluding mark-up, in accordance with the provisions of the general accounting plan. Corporate accounts sometimes contain only a global estimate of the capitalised production. It then has to be broken down by product, with the list of own-account products having been defined beforehand. In practice, capitalised production is broken down by

product according to an enterprise's principal and secondary activities, depending on whether the products concerned are on the list of own final use products.

The next step is to estimate the mark-up to be added to evaluate PEFP correctly. The estimate of this mark-up is broken down by product. In practice, for each own final use product, we calculate the B.2N / P.1 ratio for the corresponding branch: the product of PEFP excluding mark-up from this B.2N / P.1 ratio gives the amount of mark-up to be added to the PEFP estimated in step one.

In practice, to neutralise fluctuations in the B.2N / P.1 ratio which can sometimes be substantial from one year to the next depending on the economic situation, the ratio used is equal to the average of the B.2N / P.1 ratio observed over the last 3 years. In practice, however, the ratio obtained with this method can be zero or negative. In such cases, no mark-up is added to the costs of production to evaluate PEFP. Note that R&D in particular falls into this bracket: no mark-up is therefore added to output for own final use R&D, which is evaluated as the sum of costs of production.

Table: List of own final use products by market producers

A01	Crop and animal production, hunting and related service activities
C25	Forging. Treatment of metals, machining
C27	Manufacture of other electrical equipment
C33	Repair and installation of machines and equipment
F41	Construction of residential and non-residential buildings
F42	Civil engineering
F43	Specialised construction activities
J58	Publishing activities
J59	Motion picture, video and television programme production, sounding recording and musical publishing activities
J60	Programming and broadcasting activities
J62	Computer programming, consultancy and related activities
J63	Information service activities
M71	Architectural and engineering activities – technical testing and analysis
R90	Creative, arts and entertainment activities (market)
R92	Gambling and betting activities
R93	Sports activities and amusement and recreation activities (market)

e) Describe valuation of the additions to work-in-progress.

In the current French accounting plan, the distinction between actual inventories and work-in-progress has not been retained (it was present in the previous version). Work-in-progress is considered as a component of inventories. The same is true for tax purposes, so that in the source data for business statistics, actual inventories and work-in-progress are combined indiscriminately into the “stored production” variable.

In the French national accounts, producers' inventories therefore include work-in-progress and finished goods, and it is impossible to separate these two components. Producers' inventories are evaluated at their cost of production by enterprises, using different methods (weighted average unit cost or “first in, first out”). In national accounting, an adjustment is made to these inventories to evaluate them in accordance with the ESA recommendations (valued at market price) by eliminating inventory appreciation. This step can only take place in the goods and services space, because it requires the inventories to be broken down by product.

- f) Describe valuation of the total output of a non-market producer (a local KAU) and of its other non-market output.

### General government (S.13)

The activity of the institutional units that make up the general government sector is mainly non-market. They do not sell the majority of their production, or they sell it at prices deemed not economically significant: as a result, within the framework of ESA 2010, their sales, when they exist, cover less than half of their operating costs.

A non-market institutional unit may derive revenues, on a secondary basis, from the sale of the product of part of its activity. There are then two possible situations:

- either, within the institutional unit in question, one or more production units can be identified whose principal activity is the production of these goods or services that are sold;
- or no such production units can be identified.

In this second situation, sales correspond to a secondary production of the institutional unit itself, which remains non-market: to designate this secondary production, the French national accounts have retained the term used in ESA 79, which refers to “residual sales”. We consider that this secondary production, which essentially covers services, does not generate inventory.

In the first situation, the production units that are identified constitute establishments – in the sense of the SNA – or groups of establishments. These are market establishments. Their production activity is shown in a production account and a generation of income account which are distinct from the accounts that show the non-market activities of the institutional unit which encompasses them. If necessary, when the output of a unit of this type results in several significantly important distinct products, the unit is divided into the same number of homogeneous production units (UHP). These are then grouped into the corresponding market branches with the UHPs from market institutional units.

In the terminology of the French national accounts the market establishments themselves are often inaccurately called market branches of general government, or even market UHPs.

Two examples illustrate the instance of general government market establishments.

Until 2002, a technical department in the Ministry of Defence managed arsenals which carried out studies, manufactured and repaired naval military equipment. The arsenals had no legal existence of their own and no financial autonomy from the State: they were therefore not institutional units. Their activity was deemed to be market activity, mainly because of their significant export activity. The technical department was therefore treated as a group of market UHPs within the State. In 2003, this department was transformed into a company governed by private law (DCNS), which forged links with enterprises in the private sector: since then it has been reclassified in the non-financial corporations sector (S.11).

Municipalities (local government) are responsible for supplying drinking water. They can delegate the provision of this service to private companies, or provide it themselves via an entity created for the purpose, often within a group of municipalities. This group invoices the users for this service and maintains a separate set of accounts, but is not deemed to have

sufficient autonomy, especially in terms of investment, to be treated as a true institutional unit.

To be able to isolate general government market establishments and compile their accounts, the accounting observation system for the sector must allow this to be done. The existence of own accounting is a necessary precondition: this is a general criterion to identify an establishment in SNA 2008 / ESA 2010. This is the case for the two examples described above. In the State accounts, special accounts were prepared for the military arsenals, resulting in a very similar presentation to the general accounting plan. Concerning the inter-municipal syndicates responsible for managing water distribution, they followed an accounting instruction based on the model of the one that was applied to the municipalities themselves.

In general, therefore, the accounting information makes it possible to compile the production account and the generation of income account for general government market establishments. This information is usually more comprehensive and often includes a balance sheet. However, the availability of such information is not considered a sufficient criterion to treat the units concerned as institutional units in their own right, which would mean classifying them outside the general government sector. On this point, it is autonomy in behaviour which is the deciding criterion.

The relationship between the different levels is as follows.

When a non-market institutional unit is made up of only non-market establishments, its output is the sum of the outputs of these establishments. In fact, in the French national accounts such establishments are not identified and calculations are made directly at the institutional unit level.

If the unit has residual sales, the division between market and non-market output is made at the level of the products: the production of market products is equal to residual sales, as the production of non-market products is calculated as a balance, being the difference between the total production of the institutional unit, measured by the sum of production costs, and residual sales. As a result, it is not possible to measure a value added that corresponds to residual sales.

When a non-market institutional unit includes market establishments, its production is equal to the sum of the non-market production of the non-market establishments, measured from the sum of the costs of these establishments, and the market production of the market establishments. Consequently, the non-market production of the institutional unit is measured from the sum of the production costs that are not identified separately in their accounts, as the production costs of market establishments. The output of the institutional unit is then different from what would be obtained by adding together the costs of production at the level of the institutional unit considered in its entirety, since it is logical to suppose that the net operating surplus of the market establishments is not zero. Generally the output obtained will be greater than the sum of the costs. This is also true for value added. All in all, the net operating surplus is positive. For the products of the institutional unit, the production of market products includes both the production that corresponds to the market establishments and the residual sales. Unlike the previous case, it is thus possible to measure a value added that corresponds to market production, when this is produced by market establishments.

*Non-profit institutions serving households – NPISH (S.15)*

Preparing accounts for Non-Profit Institutions Serving Households (NPISH) and calculating their contribution to GDP is not based on simply systematically identifying them and periodically collecting accounting data. Although all bodies likely to belong to this sector are registered in SIRENE if they have employees, keeping their register entries up to date can be difficult in their case. In addition, although there is a specially adapted general accounting plan for non-profit associations, only the largest institutions apply it.

Chapter 4 covers the different categories of NPISH in more detail and defines the sources used.

As NPISH are non-market producers, their total output is measured from the sum of the costs of production according to the following equation:

Production = Intermediate consumption + Gross value added

where gross value added is itself defined in terms of the following sum:

Gross value added = Employee compensation

+ Gross operating surplus

+ Other taxes on production

- Other subsidies on production

Gross operating surplus equals fixed capital consumption, since net surplus is zero by convention. NPISH sometimes have revenues from sales, constituting secondary production, but it is not possible to identify the market establishments to which these correspond. Thus they are only involved in the transition from production by the (non-market) branches to the products. In the terminology used in French accounting, these sales revenues are residual sales. It has not been considered useful to estimate output for own final use for NPISH.

- 2) Describe the steps taken to ensure that the accrual principle is followed in the valuation of output (output to be recorded and valued when it is generated by the production process).

The ESANE data source is consistent with the principles of the general accounting plan in private accounting, including the principle of independence of fiscal years. In national accounting, this corresponds to the accrual principle, which is therefore respected in evaluating the output of non-financial corporations and unincorporated enterprises.

- 3) Describe the steps taken to ensure that intermediate consumption is recorded and valued at the purchasers' prices prevailing when the goods or services enter the production process.

The ESANE data source used to estimate the intermediate consumption of non-financial corporations uses the principles of the general accounting plan where expenditure is recorded at market price.

- 4) Describe the adjustments made to render changes in inventories consistent with the valuation of output and intermediate consumption. Address the following issues:

- a) Does output include changes in inventories of finished goods and work-in-progress?

Changes in producer inventories (which include the concepts of “work-in-progress” and “finished goods”) appearing in the accounts of non-financial enterprises are added to output sold (turnover) in order to estimate total output.

- b) Are changes in inventories of materials deducted from purchases of materials intended to be used as inputs in the calculation of intermediate consumption?

Changes in users’ inventories (materials) are kept separate from purchases of inputs in the ESANE database. Purchases of inputs and changes in users’ inventories are therefore included when calculating intermediate consumption.

- 5) For steps taken to ensure the application of the accrual time of recording principle to the estimates of taxes and subsidies on products reference to the description in the sections 3.28 and 3.29 may be made.

See 3.28 and 3.29.

#### **1.4. Transition from private accounting and administrative concepts to ESA 2010 national accounting concepts**

- 1) Provide a detailed comparative description of the concepts used in private and public accounting with national accounts concepts.

Companies are required to keep accounts, for their own purposes and for their partners, in accordance with a certain number of rules that make up an accounting plan. This plan is a set of rules and methods providing a standardised framework within which:

- the concepts and technical notions of accounting are defined,
- accounting information is recorded and processed,
- a company’s summary accounting statement is compiled, providing an overall representation of assets (balance sheet) or transactions (results, financial flows).

In France, companies are required by law to meet a certain number of accounting obligations. For this reason accounting has undergone a continuous harmonisation process, resulting in the production of the general accounting plan. The plan currently in force was drawn up in 1982, amended in 1986, and rewritten in 1999. It complies with the fourth Council Directive of the European Communities of 25/07/1978.

The general accounting plan sets out the principles of accounting: a true and fair view, comparability, continuity - regularity, sincerity - prudence - permanence of methods. It provides a definition of assets and liabilities, revenues and expenditure, and also sets out the rules of accounting and evaluation. It sets out provisions concerning the presentation, the structure and the operating of the accounts.

The classification of accounts according to the general accounting plan is given in the chapter on statistical sources.

Concerning accounting statement summaries, the general accounting plan proposes three systems so that the list and the presentation, as well as the complexity, can be adapted to the enterprise's size and activity. All three systems require at least the presentation of a profit and loss account – showing the expenditure and revenues for the financial year, and the resulting profit or loss – and a balance sheet.

It is interesting to note that what is called the developed system contains a table of intermediate management balances, which group expenditure and revenues together into seven stages so that activity or performance indicators can be seen: gross trade margin, production, value added, gross operating surplus, current result before tax, exceptional result, result for the financial year.

The general accounting plan is general in scope. The 1999 version states that it now applies to entities, and no longer only to enterprises. In fact its scope has been widened generally, and it now covers territorial authorities – municipalities, departments, regions and their establishments and groups. These common accounting standards were applied to the State, from financial year 2006 (when State general accounting – CGE - was put in place).

The general accounting plan has undergone some specific adaptations for units whose activity has any markedly unusual features. This may be simply specifying the content of an accounting operation in relation to a specific profession or activity. However, plans that apply to some sectors of the economy may also include operations especially devised to reflect a particular feature of their activity, and may suggest adaptations to the summary documents.

This is the case, for example, for the plans applicable respectively to credit establishments and insurance companies. Specific adaptations were also required for territorial authorities and for the State.

Using accounting information as defined by the general accounting plan to produce the national accounts means assessing what the two accounting systems have in common in terms of concepts, and in what way they differ. Concerning what they have in common, it is important to stress that the clearly stated preference in the new international standards for national accounts introduced in the 1990s (SNA93, ESA95) is to record transactions on an accrual basis and this brings them much more in line with the rules of corporate accounting.

However, if we consider only the main principles, the evaluation of stocks of assets, and hence of all transactions relating to input and output of stocks of assets, remains a point of divergence between the two accounting systems.

Remember too that national accounting is quadruple entry, i.e. it requires coherence in the recording of a transaction by the two parties: if there is divergence, this rule requires a choice to be made, which results in the introduction of a deviation into the initial accounting of at least one of the parties. It is also for this reason that national accounting does not generally retain the provisions – or reversals of provisions – which appear in business accounting, often for reasons of prudence, notions that are foreign to national accounting.

There are also clearly identified transactions that require specific treatment in the national accounts, and therefore a retreatment of the original accounting information: consider

financial leasing, for example, which is treated as simple rental in the French PCG, and imputed social contributions.

As suggested above, the PCG is broadly the basis for accounting standards applicable to general government entities other than the State: the comments made above are also valid for these units.

- 2) Provide a detailed description of the measures taken to ensure a satisfactory transition from private accounting and from government accounting to ESA 2010 concepts (alternatively a brief description may be made here with references to other parts of the Inventory). The description should cover, at least, the following items:

- a) Durable goods of small value;

Theoretically, durable goods that will bring future economic benefits are recorded as fixed assets in business accounting and hence as investment in national accounting. In practice, enterprises are allowed to record durable goods to a value of less than 500 euros under expenditure (hence in intermediate consumption in the national accounts). No retreatment is therefore required. Public accounting applies the same principles.

- b) Major repairs and renovations;

Expenditure on major repairs and renovations are recorded by both enterprises and public accounting as fixed assets, and this is coherent with the way they are recorded as GFCF in national accounting.

- c) Valuation of inventories;

Only non-financial enterprises and general government hold inventories. For general government, there are inventories in the market branches; the State also holds strategic inventories via the Atomic Energy Agency (CEA), but they undergo little change.

Regarding products, all goods are stockable. ESA 95 introduced the possibility of recording inventories, of work-in-progress, for services: this affects software, the products of architecture, the products of research (market) and the audiovisual sector. There is no work-in-progress for agricultural products.

The most frequently used method for estimating changes in inventories is based on the accounting data of holders of inventories. For non-financial enterprises, these data are recorded in ESANE. For inventories held by government, the information on market branches is recorded in the data sources, according to a presentation that respects the accounting plan.

To calculate changes in inventories in compliance with the national accounting rules, the use of data that follows the rules of business accounting can pose some fairly well identified problems. In national accounting, changes in inventories are measured using the definition formula:

*Changes in inventories = Input into inventories - Destocking*

where input and destocking are evaluated at the day's (market) price.

Business accounting follows the principle of valuation at historic cost, i.e. inventory output is valued at its input price. In a period of rising prices, this means that the value of output in business accounting is systematically lower than what should be recorded in the national accounting. Changes in inventory in business accounting are systematically greater, however, than what should be recorded in national accounting.

In the French accounts, the convention is to define appreciation in inventories as the difference between the two measurements of inventory change. This must be distinguished from holding gains which, in the national accounts, represent the difference between inventory at the beginning of the period and inventory at the end of the period, even when, like the holding gains, it originates in price movements that affect stored goods.

In the accounting information that makes up the main source of information on enterprises, from the data available not only on changes in inventories in the profit and loss account, but also on work-in-progress at the end of the period which appears in the balance sheet, the appreciation in inventories can be estimated by applying some assumptions. These assumptions are based on the regularity of input and destocking during the period, and on the regularity of price changes. The general method consists in evaluating work-in-progress at the beginning and end of the year at the average price for the year. The difference between these two gives changes in inventories at the average price for the year, which is the required value. The method therefore requires having monthly or quarterly price indices available for the products concerned, or using price indices where the change is considered to be as close as possible to that of the product or the aggregate of products concerned.

The correspondence between (changes in) inventories in business accounting and the concepts used in national accounting for the national accounts is as follows:

<b>SNA 2008 / ESA 2010</b>	<b>General accounting plan (PCG)</b>
Raw materials and supplies	Inventories of raw materials (and supplies) Inventories of other supplies
Work-in-progress and Finished goods	Stored production (work-in-progress, products)
Goods for resale	Inventories of goods

One of the main difficulties in calculating changes in inventories concerns the breakdown by product. Besides the fact that this information is essential as it must be incorporated into product balances, inventory appreciation must also be calculated in a way that is not too approximate.

This is not too difficult to do for producers' inventories. Stored production, work-in-progress and products are broken down by product using the matrix for the breakdown of non-stocked production of non-financial enterprises. For inventory changes and inventories of goods in progress, we use the distribution by product of sales of goods derived from the Annual Business Survey (EAE). For changes and users' inventories in progress, we use the structure of the intermediate input matrix.

Some products, however, are not covered by the general method for estimating changes in inventories. These are products for which a great deal of information is available on quantities and prices, and on infra-annual movements that affect inventories. These are mainly changes in inventories of agricultural products, and of energy products.

Standing timber output, recorded as production-in-progress, is estimated in its own specific way (see section 3.08). It should be noted that changes in the inventories of producers of construction products, as they appear in the accounting data of enterprises in this industry, are systematically deleted and absorbed into turnover. It is thus assumed that the corresponding projects found a buyer when work started. These stocks therefore implicitly form part of GFCF.

d) Software and entertainment, literary and artistic originals;

Software acquired for operating purposes is recorded as fixed assets in business accounting (PCG). No retreatment is therefore needed for intermediate consumption in the national accounts.

Entertainment, literary and artistic originals are recorded as intangible GFCF. In general, the method used is from the standpoint of the products. This is mainly due to the observation that it is the creators of the intangible assets concerned, whether individuals or companies, who use these assets themselves to derive income.

### Audiovisual assets

As audiovisual activities are defined in specific classes in NACE, it is easy to identify those enterprises which are shown in the business data as having a principal activity of this type. Not all of their activity results in the creation of assets: the production of advertising or commercial films, or one-off television programmes that are unlikely to generate revenues after their first showing do not contribute to asset creation. In addition, there are many, often complex, production organisation methods. Despite this diversity, it is possible to identify the creation of intangible assets with the intangible fixed assets produced by enterprises in this field from their own activity. Rather than using balance sheet data, it is more convenient to measure GFCF as intangible assets from their capitalised production as it appears in the profit and loss account, and which certainly refers only to these assets. This output is one of the components of the production of products in the relevant supply and use balances.

International flows for these products tend to focus more on income generated by assets than on sales and purchases of the assets themselves. It is therefore assumed that there is no import or export of intangible audiovisual assets. The GFCF in intangible audiovisual assets is therefore measured by the capitalised production of enterprises whose principal activity is one of the audiovisual activities.

### Other literary and artistic assets

The production process for literary and artistic assets is simpler outside the audiovisual domain. Independent producers – authors and artists – play an important part. Their activity is covered in the usual business statistical sources, under the heading “Non-commercial profit” but in their case, capitalised production cannot be identified. In addition, GFCF cannot be measured from their balance sheet data. Even more so than in the audiovisual sector, foreign trade – of the assets themselves – is negligible.

Lastly, literary and artistic assets result from the activity of two types of producer:

- publishers who pay authors a flat fee and who retain ownership of the original work;
- independent authors who exploit their rights on their own behalf.

The GFCF achieved by publishers is measured by their capitalised production, as in the case of the audiovisual sector. However, the production of own-account GFCF by authors and independent artists does not appear in the business data. Lastly, there are statistics on royalties paid by publishers and copyright collection entities. In very simplistic terms, we assume that production and the corresponding GFCF are equal to annual revenues from royalties.

#### e) Research and development;

In corporate accounting, as in public accounting, R&D expenditure is not capitalised. We therefore use the R&D survey by statistical office of the Ministry of Higher Education and Research to evaluate:

- external R&D purchases by enterprises (with the exception of purchases of R&D services by enterprises which are themselves producers of R&D services) and by general government, which are deducted from their external expenditure when evaluating intermediate consumption;
- internal R&D expenditure, to evaluate R&D production for own final use in enterprises and

general government. An adjustment is made in the case of general government, however, to include research activity by professor-researchers in universities, which is not included in the R&D survey.

f) Insurance service charge;

Processing “net non-life insurance premiums” consists in subtracting from enterprise expenditure the fraction of these premiums that falls outside payment for an insurance service as defined by the national accounts. It is the insurance account that provides the counterpart for the estimate of the production of insurance services by sector.

g) Production and allocation of FISIM;

The production of FISIM by banking establishments is broken down by institutional sector and user branch. This banking output, which is measured specifically for the national accounts, does not appear in corporate accounts. It is added to intermediate consumption by non-financial corporations and unincorporated enterprises from corporate accounting data.

h) Leasing.

Operational leasing expenditure is recorded as external expenditure (rents) by enterprises and also by general government. No retreatment is therefore required to ensure that it is recorded as intermediate consumption in the national accounts.

Financial leasing appears in the accounts of non-financial enterprises as a rental of durable goods. However, the owners, which are financial institutions, have a purely financial role: they usually have no competence over the acquired good, with the tenant-user taking on this responsibility and the related risks. In the national accounts, leasing is likened to an investment for the user of the good, financed by a loan from the lessor (who then has a loan in its assets instead of a tangible capital asset). The value of the asset when the contract is signed is then counted as GFCF while the leasing rents are deducted from external expenditure both for enterprises and general government. The total amount of rent to be deducted and the data on the value of leased assets are provided by the Banque de France, which lists all companies authorised to act as lessors. These amounts are broken down by branch and the counterpart sector is provided by a specific survey of all leasing companies.

3) Outline the treatment of income in kind, tips and gratuities in calculating GDP from the production side (detailed description of measures taken to address statistical deficiencies in data, including income in kind – type N7 - should be made in Chapter 7 on exhaustiveness). Address the following issues:

a) Does output include all primary and secondary production provided as income in kind and all tips and gratuities?

Production by non-financial corporations and unincorporated enterprises includes the following elements, which are not evaluated in the company data:

- undeclared tips (calculated using the rate applied to sectoral wages, added simultaneously to output and wages),
- “professional benefits”: unsold company output which benefits employees (evaluated using rates applied to sectoral wages, added simultaneously to output and wages in kind)

- b) Does intermediate consumption exclude expenditures by employers that are treated as income in kind (see ESA 2010 §4.05)?

Benefits in kind are goods and services that enterprises provide for their employees and include the purchase of inputs needed for production. They are treated by decreasing intermediate consumption by the same amount as wages in kind are increased (rates applied to sectoral wages).

- 4) Provide a summary table showing the size of the various conceptual adjustments. This information should be consistent with the Process Tables.

The table below shows the other conceptual adjustments applied for the different institutional sectors, with details on the relationship between adjustments in the production and income approaches (as these two approaches are very closely interlinked in the French national accounts).



"Tableau 3.4.xls"

### **1.5. The roles of direct and indirect estimation methods and of benchmarks and extrapolations**

- 1) Direct estimation methods are methods based on sources that give a direct value for the variable to be estimated. Indirect estimation methods are used in the absence of such a direct value and may comprise models, use of ratios, etc.
- 2) Provide a summary table indicating, for each NACE section, the estimation method used (e.g. survey-based, administrative data, combined data, benchmark extrapolations, models: CFC, imputed rents, FISIM, commodity flow and ratios, quantity\*price, etc.). This information should be consistent with the Process Tables.

In the production approach, production and intermediate consumption of most non-financial enterprises are evaluated primarily from the ESANE database, which is a combination of administrative data (tax returns from DGFIP) and survey data (see chapter on sources). These are therefore typically combined data.

In non-financial enterprises too, social action estimates mainly use survey data, and as a secondary source, public accounting data. Lastly, estimates for agriculture mainly use survey data.

Regarding financial enterprises and general government, the sources used are mainly administrative: accrual accounting, financial statements transmitted to the regulator (ACPR), public accounting.

Regarding banking establishments, specifically, the approach consists of a model which evaluates non-invoiced production corresponding to margins on loans and deposits (FISIM).

Regarding general government, specifically, output is evaluated from the sum of costs which involves adding an evaluation of CFC obtained by the perpetual inventory method to the administrative data.

Regarding households, the estimated production of dwelling services is based for the most part on a model which extrapolates to all households that own a dwelling the amounts of effective rent that the owners receive (taking the characteristics of the dwellings into account). Intermediate consumption by households as producers of dwelling services tends to be evaluated using a commodity flow approach. Household production of social action (help in the home) uses data from a one-off survey on home visitors (IAD) carried out in 2008. Lastly, the estimate for household production of domestic services is based largely on administrative data (wages declared by employers).

Regarding NPISH, outside the scope of social action estimates are based on both administrative data (especially in relation to declared wages) and survey data: these are therefore combined data. The evaluation of social action production, however, is based mainly on survey data. In addition, as production by these units is non-market, consumption of fixed capital has to be imputed, and is evaluated using the perpetual inventory method.

	<b>Méthode d'évaluation employée</b>
A AGRICULTURE, SYLVICULTURE ET PÊCHE	Enquête et recensement
B INDUSTRIES EXTRACTIVES	Donnée combinée
C INDUSTRIE MANUFACTURIÈRE	Donnée combinée
D PRODUCTION ET DISTRIBUTION D'ÉLECTRICITÉ, DE GAZ, DE VAPEUR ET D'AIR CONDITIONNÉ	Donnée combinée
E PRODUCTION ET DISTRIBUTION D'EAU ; ASSAINISSEMENT, GESTION DES DÉCHETS ET DÉPOLLUTION	Donnée combinée
F CONSTRUCTION	Donnée combinée
G COMMERCE ; RÉPARATION D'AUTOMOBILES ET DE MOTOCYCLES	Donnée combinée
H TRANSPORTS ET ENTREPOSAGE	Donnée combinée
I HÉBERGEMENT ET RESTAURATION	Donnée combinée
J INFORMATION ET COMMUNICATION	Donnée combinée
K ACTIVITÉS FINANCIÈRES ET D'ASSURANCE	Donnée combinée
L ACTIVITÉS IMMOBILIÈRES	Donnée combinée
M ACTIVITÉS SPÉCIALISÉES, SCIENTIFIQUES ET TECHNIQUES	Donnée combinée
N ACTIVITÉS DE SERVICES ADMINISTRATIFS ET DE SOUTIEN	Donnée combinée
O ADMINISTRATION PUBLIQUE	Donnée combinée
P ENSEIGNEMENT	Donnée combinée
Q SANTÉ HUMAINE ET ACTION SOCIALE	Donnée combinée
R ARTS, SPECTACLES ET ACTIVITÉS RÉCRÉATIVES	Donnée combinée
S AUTRES ACTIVITÉS DE SERVICES	Donnée combinée
T ACTIVITÉS DES MÉNAGES EN TANT QU'EMPLOYEURS ; ACTIVITÉS INDIFFÉRENCIÉES DES MÉNAGES EN TANT QUE PRODUCTEURS DE BIENS ET SERVICES POUR USAGE PROPRE	Donnée combinée

- 3) For items for which the most current year estimates are based on models the following aspects should be addressed:
  - a) Is the model calculated annually or for a recent year (i.e. not older than 5 years)?
  - b) Does the model provide a representative picture of the component to which it is applied?
  - c) Are any assumptions underlying the model regularly reviewed?

Most models are calculated annually and provide a representative picture of the scope they cover. This is particularly the case for models of consumption of fixed capital and FISIM.

The estimation of production of dwelling services by the stratification method uses data from the 2006 housing survey. Results are extrapolated to subsequent years – including base year 2010 – using administrative sources for changes in housing stock and average surface areas, the rents and charges survey for changes in the price of rents per square metre (for given dwelling characteristics), as well as a trend quality effect (quality effect measures increase in dwelling quality). The evaluation of the production of dwelling services by households will be reviewed when the results of the 2013 housing survey become fully available.

- 4) For items for which the most current year estimates are based on extrapolations from a benchmark year the following aspects should be addressed:
  - a) Outline the extrapolation method.
  - b) What is the benchmark year used?
  - c) In how far are the indicators used in extrapolations representative of the activities to which they are applied?
  - d) Are any assumptions underlying extrapolations reviewed regularly?

See previous point.

## **1.6. The main approaches taken with respect to exhaustiveness**

- 1) List the main methods used in the production approach to ensure exhaustiveness. References to more detailed descriptions in Sections 3.7-3.27 and in Chapter 7 should be made.

Type N1 adjustment

Concealed activity by units with no legal existence. This adjustment is evaluated on the basis of expert opinion, and focuses on those sectors of activity where self-employment is most common.

Type N2 adjustment

This adjustment concerns contraband tobacco, and the production and trafficking of drugs. Most of the sources used are from the French Drugs and Drug Addiction Monitoring Centre (OFDT).

#### Type N3 adjustment

This covers production for household own final use, evaluated mainly by expert opinion.

#### Type N4 adjustment

This adjustment covers entities specialising in horse racing, works councils and associations or foundations with market activity, but which are poorly covered by ESANE due to their non-profit status. Although they are classified in the non-financial corporations sector, their accounts are not available (or are of poor quality) and an estimate must be made based on alternative methods (using administrative data on declared wages, specific surveys, etc.).

#### Type N5 adjustment

Not applicable

#### Type N6 adjustment

This adjustment concerns value added concealed for fraudulent purposes by units whose existence is recognised by the law. The impact of the fraud on output and intermediate consumption is evaluated by extrapolating to the entire scope of the declared units the amount of fraud estimated through tax audits. In addition to this representative adjustment for fraud to the results of these enterprises, there is the “VAT gap”, which is the difference between the VAT theoretically due (obtained by applying theoretical VAT rates to uses –final or intermediate consumption, GFCF – calculated excluding VAT) and the VAT actually collected. The VAT gap mainly picks up VAT fraud, but it also shows statistical uncertainties over the amounts for uses and theoretical VAT rates, and some accounting discrepancies, etc.

#### Type N7 adjustment

This adjustment concerns market producers’ production for own final use which is not measurable via accounting data (mainly R&D, where the amount is estimated via the R&D survey), as well as tips and compensation and benefits in kind (estimates based on surveys on wage structure, and data from the housing satellite account for dwellings made available to staff free of charge).

- 2) Provide a summary table showing the size of the various exhaustiveness adjustments in the breakdown of NACE sections and types of non-exhaustiveness (N1-N7). This information should be consistent with the Process Tables and Chapter 7.

See Process Tables.

## 1.7. Agriculture, forestry and fishing (NACE Rev.2 Section A)

- 1) Demonstrate that all agricultural goods (including hunting, forestry and fishing) are covered in data sources on output and intermediate consumption.

Output in the agricultural sector is not measured on the basis of declarations made by farms on their activity, but by totalling the output of products in this branch. This means that output is measured by identifying the products concerned. This output generally relates to products assumed to have left the farm; however, it also includes certain products consumed inside the farm, which in practice are included with reference to a predetermined list of products. This addition does not affect the value added of the branch.

Agricultural output is obtained by adding together 26 products. Specifically, in 2010, at basic prices, the total was as follows:

Output of agricultural products	62 872
+ Output of wine	+ 9 038
- Residual sales	- 71
<b>= Output in the agricultural branch</b>	<b>71 839</b>

According to the product classification, wine is not an agricultural product. Concerning residual sales, these are the domain of general government when it is not possible to identify homogeneous units of production devoted to agricultural activity: this is particularly the case for agricultural teaching establishments.

The vast majority of agricultural output is destined for sale on the market. However, output by households in family gardens and livestock pens is destined for final consumption by the producing households. There are also some products which are by nature destined for fixed capital formation by the producing farms: breeding animals, on the one hand, and plantations of orchards and vineyards on the other. All these components constitute production for own final use.

The statistical sources and the methods used to calculate product output are summarised in the following table at producer prices, with products grouped into 17 categories. In general, the method used to evaluate the output of agricultural products is based on statistics of quantity and price. Related services to agriculture are an exception: they are estimated using information according to value, similar to that used for non-farm activities.

The majority of the data by quantity is provided by the Annual Agricultural Statistics (SAA), produced by Ministerial Statistical Office (MSO) for the Ministry for Agriculture. It provides physical data on surface areas, yields and quantities produced for all plant products, according to a very detailed classification. It also provides a wide range of statistics on animal products: number of animals, quantities of milk produced broken down by type of use, quantities of poultry, rabbits and other various animals produced and quantities for various animal products (honey, wool, etc.). The MSO also provides statistics for slaughtering and gross domestic livestock production (slaughtering adjusted for foreign trade) and statistics on milk collection.

<b>Products</b>	<b>2010 output in €M at producer prices</b>	<b>Method / sources</b>
Cereals	13 043	Quantities x price quantities: Annual agricultural statistics price: price of delivery to FranceAgriMer collectors
Potatoes	1 961	Quantities x price quantities: Annual agricultural statistics + gardens price: IPPAP + profession
Oleaginous	3 021	Quantities x price quantities: Annual agricultural statistics price: price of delivery to FranceAgriMer collectors
Tobacco	47	Quantities x price France-Tabac
Sugar-producing plants	950	Quantities x price CGB for sugar beet SSP DOM for sugar cane
Feed crops	4 990	Value (surface areas x cost/ha) / quantities surface areas: Annual agricultural statistics costs: IPAMPA quantities: Annual agricultural statistics
Other industrial plants	1 748	Quantities x price quantities: Annual agricultural statistics price: Agricultural producer price index For seed (values and quantities): GNIS
Plants and flowers Flowers Permanent crops	2 255	Quantities x price quantities: Annual agricultural statistics price: Agricultural producer price index Surface areas x costs
Fresh vegetables	3 914	Quantities x price quantities: Annual agricultural statistics price: FADN, SSP regional surveys
Fruit	2 981	Quantities x price quantities: Annual agricultural statistics price: FADN, SSP regional surveys
Livestock Slaughtering GFCF and inventory changes Foreign trade	10 032	Quantities x price quantities: Annual agricultural statistics price: Agricultural producer price index quantities: Annual agricultural statistics price: FADN Values and quantities: Customs
Raw milk	8 014	Quantities x price

		quantities: Annual agricultural statistics price: Agricultural producer price index
Poultry	3 096	Quantities x price quantities: Annual agricultural statistics price: Agricultural producer price index
Eggs	1 067	Quantities x price quantities: Annual agricultural statistics price: Agricultural producer price index
Other livestock products	617	Quantities x price quantities: Annual agricultural statistics price: Agricultural producer price index
Related services	3 943	Values: tax declarations, FADN Prices: PPI
<b>Total agricultural products</b>	<b>61 679</b>	
Wines	9 038	Quantities x price quantities: Annual agricultural statistics price: FADN, SSP regional surveys
<b>General total</b>	<b>70 717</b>	

Statistics on physical quantities are also prepared by FranceAgriMer, the office for the management and regulation of agricultural markets which replaced the offices that specialised by product. There are also some interprofessional bodies which provide statistics on the quantities produced: the national interprofessional group for seeds (GNIS), the general confederation of sugar beet growers (CGB), the national interprofessional group for industrial potatoes and preserving industries (GIPT), the interprofessional centre for agricultural flax producers (CIPALIN), France-Tabac, etc. Lastly, some data are collected by government entities. These are mainly statistics on wine production and output from wine cellars, compiled by the Directorate-General of Customs and Excise (DGDDI) of the Ministry for Finance.

Statistics on producer prices exclude product subsidies. For cereals, oleaginous and proteaginous crops, we use FranceAgriMer surveys of collectors, while the prices of potatoes, industrial beet, tobacco and flax are taken from the annual statistical system run by the professional bodies. For other products, price levels are established by agricultural statisticians at regional level. Notably, this is the case for other industrial plants, plants and flowers, livestock, milk, poultry, eggs, and other livestock products.

The calculation of intermediate consumption by the agricultural branch mainly uses data from surveys of farms. These data are complemented by information on products destined specifically for intermediate consumption in agriculture. It is also necessary to process the part of agricultural activity that is not covered by farms (family gardens, related service enterprises, seed producers).

Data from the Farm Accountancy Data Network (FADN) are a preferred source of information on farming operating costs. This is a sample survey of farms which provides information especially on their expenditure by value, excluding VAT. The FADN data are not

exploited in the same way as corporate accounting data, which can be used, for example, for other market activities where overall accounting consistency is preserved. They are usually used to calculate ratios: expenditure on fertiliser or phytosanitary products per hectare depending on the crops, veterinary expenditure per head of livestock, etc. These ratios are then applied to structural data taken from the annual agricultural statistics (surface areas cultivated, livestock). Total intermediate consumption deviates from total expenditure, which is obtained by using the FADN directly.

Thus the FADN data are used to evaluate a third of total intermediate consumption in the agricultural branch: fertiliser, crop protection products, energy products, veterinary expenses, maintenance of equipment and buildings, agricultural services and other goods and services. Products from the goods and services classification must then be allocated to these headings. Other intermediate consumption in the branch is evaluated by assigning the products directly concerned to the context of supply and use balances for these products. This primarily concerns agricultural products consumed by the branch, such as seed and fodder, and some very specific products like animal feed and services related to agriculture. The very comprehensive information on these products means that they can be assigned without ambiguity to intermediate consumption by the agricultural branch.

Intermediate consumption by insurance services requires a different approach. The preparation of supply and use balances for these products is in fact extended by setting intermediate consumptions for different branches – or groups of branches – using the process known as “fixed cells”. Applying this process to agriculture is therefore not an exception. Intermediate consumption of financial intermediation services indirectly measured is calculated using in-progress amounts that appear in the FADN and different information from Crédit Agricole.

Finally, some adjustments must be made to the FADN data to take into account the fact that the agricultural branch is wider in scope than just farms. We therefore evaluate intermediate consumption by family gardens, wine cooperatives, enterprises serving agriculture and seed-producing establishments. An adjustment is also made to include farms in the overseas departments which are not covered by the FADN.

Forestry output includes three activities within the branch as it appears in the classification for the national accounts: actual forestry, which consists in growing standing timber; logging, which results in the production of raw wood for user industries; and forestry services. As was the case for agriculture, for forestry there are no accounting sources from which activity can be evaluated. Output from the different forestry products is therefore estimated using various sources.

Quantities of wood (logged wood and standing timber) are estimated via an annual survey carried out by the statistical office of the Ministry of Agriculture on logging. For sales of logged wood, we use the survey for the reference year and evaluate quantities from the prices provided by the same survey. For sales of standing timber, we use the survey for the following year (we assume that the trees are felled mainly during winter) and evaluate quantities from the prices from sales in the autumn by the National Forestry Office (ONF). There is also production of fuel wood for own final consumption by the producers (households). The estimate comes from agricultural statistics for the quantities, and from the ONF for the prices. The production of Christmas trees is estimated from commercial sales. Lastly, production by forestry services is taken from ESANE. Its main counterpart is fixed capital formation from logging, which is estimated from financing operations. Forestry

activity is exceptional in terms of the importance of the role of the State and local authorities, which act both as managers and financiers. The annual report by the National Forestry Fund provides information on investments made with State financial participation or in the private domain of the State. Self-financing investment, especially when carried out by private operators, is estimated in proportion.

Intermediate consumption by the forestry branch is estimated by applying rates taken from available tax data on forestry enterprises to forestry production.

As was the case for agriculture and forestry, fishing and aquaculture output is based on surveys which evaluate the annual production of the goods concerned. These data are collected by FranceAgriMer mainly from sales in fish auctions.

Several adjustments are applied to the gross figures. The most important are to improve the exhaustiveness of coverage of the activity. An estimate for fishing in the overseas departments (DOM) – €200 M – is added to the previous figures. A second adjustment takes the under-declaration of the amounts caught into account. An adjustment rate of around 15%, taken from an independent study, is applied to the value of fish landed. Other adjustments are of a technical nature. An adjustment is made for sales of unfinished products between shellfish farmers. Another is for the inclusion of household production of the products of fishing for own consumption.

The output of the branch equals the sum of the output of the different products, less residual sales, which are very low, by general government. Value added is calculated based on a value added/production ratio of 70%.

2) Provide and describe a bridge table illustrating transition from Economic Accounts for Agriculture to national accounts.

The table below shows the transition from the economic account for agriculture to the account for the agriculture branch published by INSEE.

		Comptes économiques de l'agriculture	Comptabilité nationale	Écart	Dont établissements semenciers	Dont jardins familiaux	Dont activités non agricoles	Dont œufs à couver	Dont révisions effectuées depuis l'établissement de l'année de base 2010
CÉRÉALES (y compris semences)	01	11,770	13,044	1,274	1,272				2
PLANTES INDUSTRIELLES	02	4,334	5,812	1,478	1,458				20
PLANTES FOURRAGÈRES	03	4,990	4,990	0					0
PRODUITS MARAÎCHERS ET HORTICOLES	04	5,251	6,177	926		926			0
POMMES DE TERRE (y compris semences)	05	1,688	1,977	289	142		148		-1
FRUITS	06	2,924	3,153	229		229			0
VINS	07	8,142	9,038	897			897		-1
HUILE D'OLIVE	08	0	0	0					0
AUTRES PRODUITS VÉGÉTAUX	09	114	114	0					0
<b>PRODUCTION VÉGÉTALE (01 À 09)</b>	<b>10</b>	<b>39,211</b>	<b>44,305</b>	<b>5,094</b>	<b>2,872</b>	<b>1,303</b>	<b>897</b>	<b>0</b>	<b>22</b>
ANIMAUX	11	14,430	14,434	4					4
PRODUITS ANIMAUX	12	8,721	9,214	493		44	181	269	-1
<b>PRODUCTION ANIMALE (11+12)</b>	<b>13</b>	<b>23,151</b>	<b>23,648</b>	<b>497</b>	<b>0</b>	<b>44</b>	<b>181</b>	<b>269</b>	<b>3</b>
<b>PRODUCTION DE BIENS AGRICOLES (10+13)</b>	<b>14</b>	<b>62,362</b>	<b>67,953</b>	<b>5,591</b>	<b>2,872</b>	<b>1,347</b>	<b>1,078</b>	<b>269</b>	<b>25</b>
PRODUCTION DE SERVICES AGRICOLES	15	3,849	3,943	95			95		-1
<b>PRODUCTION AGRICOLE (14+15)</b>	<b>16</b>	<b>66,210</b>	<b>71,896</b>	<b>5,685</b>	<b>2,872</b>	<b>1,347</b>	<b>1,173</b>	<b>269</b>	<b>24</b>
ACTIVITÉS SECONDAIRES NON AGRICOLES (NON SÉPARABLES)	17	1,962	0	-1,962			-1,963		1
<b>PRODUCTION DE LA BRANCHE AGRICOLE (16+17)</b>	<b>18</b>	<b>68,172</b>	<b>71,896</b>	<b>3,723</b>	<b>2,872</b>	<b>1,347</b>	<b>-790</b>	<b>269</b>	<b>25</b>
CONSOMMATIONS INTERMÉDIAIRES	19	40,263	42,675	2,412	1,944	237		269	-38
<b>VALEUR AJOUTÉE BRUTE AUX PRIX DE BASE (18-19)</b>	<b>20</b>	<b>27,909</b>	<b>29,220</b>	<b>1,311</b>	<b>928</b>	<b>1,110</b>	<b>-790</b>	<b>0</b>	<b>63</b>

3) Provide information on the steps taken to avoid double counting when other branches have agriculture as a secondary activity.

The French national accounts are based on the full integration of institutional sector accounts and branch accounts. If we consider only non-financial market activity, since non-farm activities are covered by statistics based on enterprises, i.e. on institutional units, then in order to avoid omissions and double-counting, the activity of the agriculture branch must be replaced in enterprises which include the homogeneous production units (UPH) that make up this branch. At the same time – but this is only useful in the context of the input-output approach – the activities of non-farm enterprises must be described in terms of branches, i.e. of groups of UPH.

Part of agricultural output is thus produced by enterprises for which agriculture is not the principal activity. Diversification is not extensive, however, and most of the non-farm enterprises concerned are classified in the agrifood industry or in trade. These are enterprises whose principal activity is creating value from agricultural products, mainly wines. The corresponding value added is already recorded elsewhere. The information used to produce figures for this part of production is simply taken from the distribution by activity of the output of non-farm enterprises. Production, valued added and intermediate consumption are calculated using the same procedure as for non-farm non-financial corporations and unincorporated enterprises.

- 4) Provide information on the treatment of the agricultural output of non-farm based agricultural enterprises, of the output of non-farming activities of farmers and of the agricultural production of non-agricultural households.

The agricultural output of enterprises for which agriculture is not the principal activity is differentiated by breaking it down by production branch (see previous point). This output is deducted from the output of these enterprises in their principal branch of activity to avoid any double-counting.

In addition, the activity of farms extends beyond the boundaries of the agricultural branch. It covers the development of dairy products and the marketing of agricultural products. Farms also have some tourist activity. This output is estimated from data gathered in surveys of the farms mentioned above. The same information source is used to estimate own-account GFCF carried out by farms, whether related to agricultural or non-agricultural products (especially work related to farm buildings).

Output from family gardens is estimated as a fixed proportion of the output for certain products (fruits, vegetables, potatoes and eggs). In 2010, this production was worth around €1.3 billion.

- 5) Provide information on the recording of output of agricultural products, and products of forestry, in particular the growth of multi-annual plantations and animals and standing timber (is it recorded as being produced continuously over the entire period of production, and not simply when the crops are harvested, animals slaughtered or trees felled?).

In the case of meat production, in order to measure production continuously and not simply when animals are delivered for slaughter, we use a demographic model for different categories of livestock.

Agricultural crops naturally have an annual cycle, but it does not necessarily coincide with the calendar year: for example, for many cereals, sowing takes place in the autumn and harvest is in the summer. For simplicity, the agricultural cycle is attached to a single calendar year. Regarding forestry, projections are based on estimates by the National Institute for Geographic and Forest Information (National Forest Inventory) and provide quantities for annual biological production by species. This is evaluated from the sales prices of standing timber at the National Forestry Office (ONF) autumn sales.

The increase in work-in-progress is deduced by subtracting from biological production the sale of standing timber, wood collected by households for their own use and dead wood collected throughout the year.

- 6) Provide information on the illegal activities classified in this section (in particular production of drugs; detailed description of measures taken to address absence from statistical files of illegal producers – type N2 – should be made in the Chapter 7 on exhaustiveness).

### **1.8. Mining and quarrying (NACE Rev. 2 Section B)**

- 1) Provide information on whether mineral exploration is treated as GFCF.

Mineral exploration in France is now negligible.

### **1.9. Manufacturing (NACE Rev. 2 Section C)**

- 1) Provide information on the illegal activities classified in this section (in particular production of drugs; detailed description of measures taken to address absence from statistical files of illegal producers – type N2 – should be made in the Chapter 7 on exhaustiveness).

The only illegal production in Section C is that of cannabis (€42 million at 2010 basic prices). Section C, type N7 adjustment, includes a large proportion of R&D output for own use (PEFP) by market producers.

### **1.10. Electricity, gas, steam and air conditioning supply (NACE Rev. 2 Section D)**

### **1.11. Water supply; sewerage, waste management and remediation activities (NACE Rev. 2 Section E)**

### **1.12. Construction (NACE Rev. 2 Section F)**

- 1) Provide information on how the recommendations from the GNP Committee Task Force on Construction (CPNB 202) related to exhaustiveness are applied. Address the following aspects:
  - a) Are independent estimates (based on at least two methodologies applied to separate data sources) produced and confronted to each other for validation purposes? The methodologies should be described.
  - b) Is the potential for using the supply and demand of building materials such as cement investigated for validating construction output and adjusting for any under-coverage of register based surveys?
  - c) Are estimates of total revenue from subcontracting activities and total expenditure on subcontracting with the construction sector made and used to estimate missing revenue of subcontractors?
  - d) Are proper quantity times price methods applied (e.g. use of building permits) to make estimates of new building work or to produce alternative estimates for validation purposes?
  - e) Are repairs and improvements to dwellings from households estimated on the basis of or validated against expenditure?
  - f) Do construction surveys include specific questions on exports?

- g) Is construction, carried out abroad for a period less than one year, recorded as domestic output (see ESA 2010 §2.09(b))?

#### The different sources and their use by national accountants

As for the other sections, the main source of data for non-financial enterprises is once again ESANE, which compares accounting data and survey data. Adjustments for fraud (N1 and N6) are particularly important in this section (total impact of +€15.4 bn on value added). The production of civil engineering by general government is measured from data provided by the DGFIP. Output for household own final use is also introduced.

Alternative sources (comparison of declarations by enterprises with those by households, comparison of declarations by subcontractors and contractors with building permits) could be considered to measure concealed construction activity but such alternative methods are not conclusive: for example, structural corporate data provide information on the activities of subcontractors on the one hand, and the use of subcontracting by building enterprises on the other. The difference between these two declarations could be symptomatic of undeclared activity but the two figures are not comparable: information on the activities of subcontractors is mixed with construction work for real estate developers.

Structural corporate data can also be used to break down construction company turnover by type of customer, by identifying households. These data could be compared with household expenditure data (on investment, final and intermediate consumption) such as the family budget. However, it is difficult to identify this expenditure from the Family Budget Survey as it does not include household expenditure by non-occupier owners.

Finally, data on building permits provide some information on construction activity (even though not all construction work requires a permit) and they are used by the national accounts to produce indicators of change in volume in construction for the semi-definitive and provisional accounts, when the structural corporate data are not yet available. The Sustainable Development Ministerial Statistical Department (SOeS) uses this information to obtain the amount of GFCF for households in construction. However, it is a complex matter to evaluate these building permits and the method has been revised several times by the SOeS in recent years. However, figures on household GFCF published by the SOeS are currently lower than those used in the national accounts, which suggests that the national accounts are not under-estimating the occurrence of fraud.

#### Construction carried out abroad

In the French national accounts, when there are construction sites abroad, this activity is considered as if it had been relocated. It is considered that the activity of a French company constructing a structure in China, for example, is being carried out by a fictitious Chinese unit. The activity of this fictitious unit, assimilated with a (Chinese) quasi-corporation, is the construction of the building. To do this, it uses local resources (labour in particular), but also resources financed from France (goods, engineering services provided by the parent company, etc.). All in all, the Chinese quasi-corporation makes a profit, a part of which is repatriated. Finally everything unfolds as if this quasi-corporation were a subsidiary of the French construction company responsible for the construction site; the profits from this subsidiary would then be repatriated to the parent company and recorded as property income.

Symmetrically, construction work carried out in France on behalf of foreign companies gives rise to the transfer of property income from France to the rest of the world.

This treatment is in strict compliance with ESA 2010 for all works lasting more than one year and for those constituting gross fixed capital formation (irrespective of duration). In the absence of data, we consider that all of the works meet one of the two conditions, which is certainly very close to the truth.

### **3.13. Wholesale and retail trade; repair of motor vehicles and motorcycles (NACE Rev. 2 Section G)**

- 1) Provide information on the measurement of output of wholesale and retail services (are they measured by the trade margins realised on the goods they purchase for resale?).

Yes, output does measure the trade margins realised.

- 2) Provide information on the steps taken to exclude holding gains and losses from trade margins.

The accounting data allow the isolation of changes in inventories of goods for resale for trading enterprises. Adjustment for appreciation of inventories makes it possible to statistically eliminate holding gains and losses on inventories, in particular goods purchased for resale.

- 3) Provide information on any ad-hoc surveys made on trade margins.
- 4) Provide information on the steps taken to avoid double counting when other branches have trade as a secondary activity.

The general accounting plan (PGC) can isolate purchases and sales of goods, whatever the nature of the activity of the enterprise concerned.

- 5) Provide information on how the recommendations from the GNP Committee Task Force on Distribution (CPNB 205) related to exhaustiveness are applied. Address the following aspects:
  - a) Are independent estimates from the demand and the supply side produced and confronted with each other for validation purposes? Describe this procedure in detail.
  - b) Is the turnover of the retail trade compared and made consistent with the tradable consumption of households?

The tradable consumption of households is confronted every year with the sources available on the activity of enterprises specialised in the retail trade, and consistency is guaranteed.

- c) Are trade activities inside non-commercial organisations properly estimated and included in the output estimate of distributive trades?

The PGC can isolate purchases and sales of goods, whatever the nature of the activity of the enterprise concerned.

- d) Are the repairs of motor vehicles estimated on the basis of or validated against expenditure?

The accounting sources for motor vehicle repair enterprises are confronted with the turnover declarations (for VAT calculation purposes) used to estimate household consumption.

- 6) Provide information on the illegal activities classified in this section (in particular trafficking of drugs and smuggling of alcohol and tobacco products; detailed description of measures taken to address absence from statistical files of illegal producers – type N2 – should be made in the Chapter 7 on exhaustiveness).

In section G an N2 adjustment of a large amount is applied: +€626m for tobacco smuggling (margins realised by smugglers on imported tobacco) and +€1862m for drug trafficking (cannabis, cocaine, heroin, etc.).

### **3.14. Transportation and storage (NACE Rev. 2 Section H)**

- 1) Describe the steps taken to exclude holding gains and losses from output of storage services (with the exception of cases listed in the ESA 2010 §3.58)

The accounting data allow the isolation of changes in inventories of goods for resale for trading enterprises. Adjustment for appreciation of inventories makes it possible to statistically eliminate holding gains and losses on inventories, in particular goods purchased for resale. The exceptions provided for in §3.58 are taken into account.

### **3.15. Accommodation and food service activities (NACE Rev. 2 Section I)**

- 1) Provide information on how the recommendations from the GNP Committee Task Force on Distribution (CPNB 205) related to exhaustiveness are applied. In particular describe if and how the estimates for HORECA based on business statistics are validated against the price times quantity approach and/or the expenditure approach.
- 2) Provide information on whether the value of output of the services of hotels, restaurants and cafes includes the value of the food, beverages, etc. consumed.
- 3) Provide information on how imports and exports of hotel and restaurant services are measured and taken into account for GNI estimates.

Significant adjustments are made for fraud (N6: impact on value added of +€7192m) and tips and benefits in kind (N7: impact on value added of +€3350m).

The French national accounts do not isolate exports and imports of hotel and restaurant services. Resident output is evaluated, mainly on the basis of accounting data readjusted to take account of fraud, and the consumption expenditure takes account of expenditure of non-residents in France (and symmetrically excludes the consumption expenditure of residents abroad). It is the territorial adjustment (measured via the balance of payments travel survey)

that ensures that total consumption, exports and imports are consistent with the national accounts concepts.

### **3.16. Information and communication (NACE Rev. 2 Section J)**

This section includes a significant adjustment of output for own final use in R&D (+€3165m on value added).

### **3.17. Financial and insurance activities (NACE Rev. 2 Section K)**

- 1) Descriptions of the calculation of output, its allocation and intermediate consumption should be made individually for the following types of financial services:
  - a) financial services provided for direct payment (see ESA 2010 §3.69);

The financial services invoiced by banks are determined from the profit and loss accounts filed with the Banque de France:

[https://esurfi-banque.banque-france.fr/tableaux/surfi/detail-dun-tableau-surfi/tableau/CPTE\\_RESU/](https://esurfi-banque.banque-france.fr/tableaux/surfi/detail-dun-tableau-surfi/tableau/CPTE_RESU/)

In particular, the total amount of services invoiced is determined by adding up the lines (INCOME tab):

- 1.1.2 - Commission on income from cash transactions and interbank transactions
- 1.2.2 - Commission on income from customer transactions
- 1.3.10 - Commission on income from securities transactions
- 1.4.1.4 - Other income from leasing and similar transactions
- 1.4.2.1 - Income from operating lease transactions, rents
- 1.4.2.4 - Other income from operating lease transactions
- 1.6.2 - Commission on income from foreign exchange transactions
- 1.7.1 - Income from financing commitments
- 1.7.2 - Income from guarantee commitments
- 1.7.3.1 - Gains on commitments on securities
- 1.7.3.2 - Commission on income from commitments on securities
- 1.7.4.4 - Commission on income from forward financial instruments
- 1.7.5 - Income from other commitments given
- 1.8 - Income from financial services
- 1.9 - Other banking income
- 2.1 - Recharged expenses
- 2.2 - Share of income from joint non-banking transactions
- 2.3 - Share of recharged head office expenses
- 2.5 - Ancillary revenue
- 2.7.1 - Transfers of non-banking operating expenses
- 2.7.3 - Other operating income

- b) FISIM (see ESA 2010 §3.70-3.72 and chapter 14);

The calculation of FISIM and their allocation by use assumes that the following be identified:

- FISIM producers: these are only financial corporations that practise financial intermediation, which excludes investment funds, insurers and financial auxiliaries; by convention, the central bank is not considered as a FISIM producer;
- FISIM supporting financial instruments: these are loans and deposits.

The method consists of calculating a reference interest rate which, applied to stocks of loans and deposits, allows the amount of “pure” interest to be determined. The value of the services is then equal to the difference between the actual interest observed on the deposits and loans, on the one hand, and the amounts of pure interest, on the other. The actual interest corresponds to the interest observed, calculated on the transactions recorded on an *accrual basis*.

In other words, normally:

- depositors with financial intermediaries consume services whose value is equal to: amounts of pure interest relating to the deposits minus actual interest on deposits;
- borrowers from financial intermediaries consume services whose value is equal to: actual interest on loans minus amounts of pure interest relating to loans.

Thus the margin on the loans granted to a customer is obtained by multiplying the corresponding stock by the difference between the rate paid by this customer and the reference rate, that on a customer’s deposits by multiplying the corresponding stock by the difference between the reference rate and the rate paid to this customer.

The calculation involves considerable amounts of data:

- the average stocks of deposits and loans for the year;
- the amounts of actual interest on loans and deposits;
- it is also important to distinguish between categories of depositors and borrowers: detailing them by institutional sector is a minimum requisite; in fact, it is necessary to identify unincorporated enterprises within households, and to identify housing loans for households.

The internal reference rate is calculated as the ratio of the total amount of interest circulating between resident financial intermediaries to the average outstanding assets/liabilities linking these intermediaries. As a result of this calculation, there is by construction no consumption of services between resident intermediaries.

The external reference rate is calculated in the same way using the stocks and interest linking resident and non-resident financial intermediaries. For practical reasons, flows of services between financial intermediaries, not always nil by comparison with the internal situation, are cancelled out. Imported FISIM are therefore only consumed by resident non-financial agents, and exports only by non-resident non-financial agents.

FISIM consumed by non-financial corporations and unincorporated enterprises are broken down by branch, according to the main activity of these enterprises.

The data are supplied by the Banque de France with the exception of interest on deposits and on the loans of resident agents with non-resident financial institutions, which are extrapolated by INSEE from the results published for the balance of payments.

- c) financial services in acquiring and disposing of financial assets and liabilities in financial markets (e.g. margins between buying and selling prices realised on securities, equities, investment fund shares and foreign currencies exchange; see ESA 2010 §3.73);

d) insurance and pension schemes (see ESA 2010 §3.74).

The measurement of output of the service rendered by the insurance activity is conventional. In its most general form, it is written as follows:

$$\begin{aligned} \text{Output} = & \text{Premiums} \\ & + \text{Premium supplements} \\ & - \text{Services} \\ & - \text{Variations in the technical reserves representing policyholders' receivables} \end{aligned}$$

This definition, derived from the more explicit ESA definition, is constructed to cover both life insurance and non-life insurance. The terms used in this definition to refer to provisions, often called reserves in national accounting standards, are those of the categories of the insurance accounting plan (PCA). Premium supplements correspond to the property income the insurance companies earn by investing the technical reserves representing the policyholders' receivables: this income is attributed to the policyholders.

The way this definition applies to the different cases is specified below, distinguishing between:

- life insurance
- non-life insurance
- reinsurance

#### *Life insurance*

The application of the general formula to life insurance requires the following clarifications. As insurers' commitments are, for the most part, multi-annual, in life insurance there are no provisions for unearned premiums.

The particularity of life insurance lies in the scale, on the technical expenses side, of the amounts put into life insurance reserves. It is necessary, in this regard, to correct the variations in these reserves for the effects of holding gains and losses.

#### *Non-life insurance*

The application of the general formula to non-life insurance requires the following clarifications. The premiums written during a financial year are corrected to retain only the amounts concerned by the coverage of the risks expected in that financial year, according to the accrual basis of recording. Thus we obtain the premiums earned for the financial year, by adding to the written premiums the provisions for unearned premiums, which are the policyholders' receivables.

Symmetrically, all the services that have their causative event in the year are attached to it. Thus we obtain the benefits due for the financial year, by adding to the claims paid out the reserves for outstanding claims, which are the policyholders' receivables. In addition, these benefits are adjusted to remove the volatile nature of the series.

#### *Reinsurance*

Reinsurance in life insurance is calculated in the same way as in life insurance based on the “Acceptances” column in the insurers’ financial statements. This is also the case for the reinsurance of non-life insurance.

### *COFACE*

For its own-account activities, COFACE’s technical results are included in the totalling for conventional insurance corporations. COFACE’s output on the State’s account is calculated like non-life insurance output. It should be noted that COFACE receives substantial amounts of recoveries, which are recorded as negative paid benefits. In addition, COFACE receives subsidies on products.

- 2) Provide description of the calculation of output, its allocation and intermediate consumption of the central bank. Is its output valued as the sum of costs and allocated in accordance with the ESA 2010 §14.16? Is central bank excluded from the calculation of FISIM?

The central bank’s output is evaluated as the sum of its costs. If we denote the central bank’s output as P1\_BC, we get:

$$\begin{aligned} P1\_BC &= \text{Intermediate consumption (P2)} \\ &+ \text{Compensation of employees (D1)} \\ &+ \text{Taxes on production (D29)} \\ &+ \text{Consumption of fixed capital (P51c)} \end{aligned}$$

This output estimated in this way contains a part that has already been invoiced to other financial intermediaries. If we denote this output invoiced as X, the quantity (P1\_BC – X) remains to be consumed by financial intermediaries. By convention, this part of output is entirely consumed in P2 by sector S122. In addition, in order not to upset the balance of the deposit-taking corporations account, an “Other miscellaneous current transfer” is recorded between this sector and the central bank. The central bank’s accounts, its costs in particular, are drawn up based on the following report (e.g. Annual report 2014):

[https://www.banque-france.fr/fileadmin/user\\_upload/banque\\_de\\_france/La\\_Banque\\_de\\_France/RA-2014-comptes.pdf](https://www.banque-france.fr/fileadmin/user_upload/banque_de_france/La_Banque_de_France/RA-2014-comptes.pdf)

The central bank is excluded from the calculation of FISIM.

- 3) Provide detailed numerical evidence of financial services for which output is calculated on the basis of direct payments charged by financial institutions.
- 4) Provide detailed numerical evidence of the consecutive stages and individual elements of the calculation and allocation of FISIM. Provide numerical evidence of the impact of the allocation of FISIM on GDP and GNI.

Step 1: determine the average stocks of deposits and loans for each sector as regards resident financial intermediaries.

Step 2: determine the gross interest (D41G) received and paid for each sub-sector consuming FISIM produced by resident financial intermediaries.

Step 3: calculate the internal and external reference rates.

PC	SC	Encours moyen	D41G	Taux apparents	Taux de référence	SIFIM
Passif (dépôts)	SCS11	252 844	2 303	0,91	2,01	2 784
	SCS126	11 000	100	0,91	2,01	121
	SCS128	15 840	226	1,43	2,01	93
	SCS13111	33 687	760	2,26	2,01	-82
	SCS13112	7 487	13	0,17	2,01	138
	SCS1313	397	2	0,50	2,01	6
	SCS1314	10 523	111	1,05	2,01	101
	SCS14A	80 475	1 046	1,30	2,01	573
	SCS14B	924 709	13 991	1,51	2,01	4 615
	SCS15	31 373	277	0,88	2,01	354
	SCS20_ANF	108 902	1 728	1,59	1,86	300
Total agents non financiers		1 477 237	20 557	1,39	2,00	9 002
Actif (crédits)	SCS11	783 942	29 841	3,81	2,01	14 068
	SCS126	15 000	568	3,79	2,01	266
	SCS128	39 624	1 175	2,97	2,01	378
	SCS13111	2 445	101	4,13	2,01	52
	SCS13112	1 856	74	3,99	2,01	37
	SCS1313	141 907	5 009	3,53	2,01	2 154
	SCS1314	54 775	2 292	4,18	2,01	1 190
	SCS14A	133 357	5 119	3,84	2,01	2 436
	SCS14B	881 146	34 578	3,92	2,01	16 849
	dont SCS14BL	690 901	26 956	3,90	2,01	13 055
	SCS14BHL	190 245	7 622	4,01	2,01	3 794
	SCS15	14 838	529	3,57	2,01	230
	SCS20_ANF	191 441	7 213	3,77	1,88	3 614
Total agents non financiers		2 260 331	86 499	3,83	2,00	41 274

*Production de Sifim par les agents résidents & Allocation du Sifim par secteur contrepartie*

Step 4: deduct the FISIM produced by resident agents and consumed by each sub-sector.

	Encours moyens	D41G	Taux apparents	Taux de référence	Sifim
<b>Dépôts (passif S2 IF)</b>					
SCS11	41 877	513	1,23	1,86	266
SCS128	2 344	29	1,23	1,86	15
SCS13111	252	3	1,23	1,86	2
SCS13112	21	0	1,23	1,86	0
SCS1313	2	0	1,23	1,86	0
SCS1314	542	7	1,23	1,86	3
SCS14B	27 187	333	1,23	1,86	173
<b>Crédits (actif S2 IF)</b>					
SCS11	66 505	2 440	3,67	1,88	1 190
SCS128	590	23	3,96	1,88	12
SCS13111	35	1	3,70	1,88	1
SCS13112	3 400	105	3,08	1,88	41
SCS1313	3 200	118	3,70	1,88	58
SCS1314	51	2	3,49	1,88	1

*Imports de Sifim*

Step 5: determination of FISIM imports.

The impact of FISIM on GNI is measured as the sum of:

- households' final consumption of FISIM:  $(4615 + 3794 + 173) = €8582\text{m}$  (FISIM associated with housing loans constitute intermediate consumption by households)
- the intermediate consumption of the non-market sectors:  $(-82+138+6+101+354+52+37+2154+1190+230+2+3+1+41+58+1) = €4286\text{m}$

All in all, the impact of FISIM on French GNI in 2010 was €12,868m.

As for the impact of FISIM on GDP, it is measured as follows

- Impact on GNI: €12,868m
- to which FISIM exports are added:  $(300 + 3,614) = €3914\text{m}$
- then FISIM imports deducted:  $(266+15+2+3+173+1190+12+1+41+58+1) = €1762\text{m}$

all in all, the impact of FISIM on French GDP in 2010 is estimated at €15,020m.

- 5) Provide information on how the requirements of the Council Regulation 448/98, the Commission Regulation 1889/2002 and the ESA 2010 Chapter 14 relating to the calculation and allocation of FISIM are met. Address the following aspects:

- α) Are both sub-sectors S122 (deposit-taking corporations except the central bank) and S125 (other financial intermediaries, except insurance corporations and pension funds) included in the calculation of FISIM?

Yes, both sub-sectors produce FISIM. In 2010, sector S122 produced €48,663m of FISIM and sector S125 €1613m.

- β) Are statistical data required for the calculation of FISIM available? In particular, for each sub-sector S122 and S125 are average stocks of loans and deposits as well as the accrued interest available in the breakdown by user sectors?

The average stocks of the counterpart sectors are available for each of the two sub-sectors S122 and S125. The main accounting documents that allow these stocks to be determined are:

[https://esurfi-banque.banque-france.fr/tableaux/surfi/detail-dun-tableau-surfi/tableau/CLIENT\\_RE/](https://esurfi-banque.banque-france.fr/tableaux/surfi/detail-dun-tableau-surfi/tableau/CLIENT_RE/)

and

[https://esurfi-banque.banque-france.fr/tableaux/surfi/detail-dun-tableau-surfi/tableau/CLIENT\\_nR/](https://esurfi-banque.banque-france.fr/tableaux/surfi/detail-dun-tableau-surfi/tableau/CLIENT_nR/)

On the other hand, gross interest (D41G – excluding FISIM adjustments) is not directly available for each paying/receiving sector. It is determined by multiplying the stocks by the apparent rates estimated for each-sector.

- χ) If the information on the accrued interest by user sector is not directly available, and the calculation of the flows of interest is based on the interest rates, are these rates sector-specific., i.e. individually computed for

each institutional user sector? Are they weighted according to the maturity breakdown?

Yes, the interest rates used are differentiated by sub-sector (see 3.17.4/). The method for estimating the interest rates for each sector is based on the composition of the relevant financial instruments. For example, the estimated overall interest rate on households' deposits is constructed as the weighted average (weighted by the stocks) of different rates associated with the types of deposits that they hold ("livret A" savings accounts, fixed term deposits, etc.).

δ) Thus, is FISIM calculated separately for each user sector?

Yes

ε) Is FISIM by resident institutional sector obtained as the sum of FISIM on loans granted to the institutional sector and of FISIM on deposits of the institutional sector?

Yes.

φ) Is FISIM on the loans granted to the resident institutional sector equal to interest receivable on loans minus (loan stocks \* internal reference rate)?

Yes.

γ) Is FISIM on the deposits of the resident institutional sector equal to (deposit stocks \* internal reference rate) minus interest payable on deposits?

Yes.

η) Is the internal reference rate calculated as the ratio of interest receivable on loans between (and within) S122 and S125 to stocks of loans between (and within) S122 and S125? If not, how is the internal reference rate arrived at (it is also acceptable to use the ratio of interest on deposits to stocks of deposits or the ratio of interest on loans plus interest on deposits to the stock of loans plus the stock of deposits between and within S122 and S125)?

No. An indirect method is used in France to calculate the internal and external reference rates: certain market rates (EONIA, rates of partner interbank countries) are used in particular to balance out the international interbank market. **This method is modified as of the GNI notification of September 2016 to take account of transversal reservation II issued by Eurostat on SEC 1995.**

ι) Is exported FISIM calculated as the sum of FISIM on loans granted to non-residents and FISIM on the deposits of non-residents?

Yes.

φ) Is FISIM on loans granted to non-residents equal to interest receivable - (loan stock \* external reference rate)?

Yes.

- κ) Is FISIM on the deposits of non-residents equal to (deposit stocks \* external reference rate) - interest payable?

FISIM on exported deposits are calculated in the same way as FISIM produced by resident agents and consumed by resident sectors.

- λ) Is FISIM imported by each institutional sector calculated as the sum of FISIM imported for loans and FISIM imported for deposits?

Yes.

- μ) Is FISIM imported for loans equal to interest receivable by non-resident financial intermediaries - (loan stocks \* external reference rate)?

Yes.

- ν) Is FISIM imported for deposits equal to (deposit stocks \* external reference rate) - interest payable by non-resident financial intermediaries?

Yes.

- ο) Is the external reference rate (used to calculate FISIM exports and imports) calculated as the ratio of interest on loans plus interest on deposits between resident FIs and non-resident FIs, to the stock of loans plus the stock of deposits between resident FIs and non-resident FIs? If not, how is the external reference rate arrived at?

No. An indirect method is used in France to calculate the internal and external reference rates: certain market rates (EONIA, rates of partner interbank countries) are used in particular to balance out the international interbank market. **This method is modified as of the GNI notification of September 2016 to take account of transversal reservation II issued by Eurostat on SEC 1995.**

- π) Is it ensured that the flows of interest between and within the subsectors S122 and S125 and between resident FIs and non-resident FIs as well as the corresponding stocks of loans and deposits impact the production of FISIM only through the internal and external reference rates?

Yes.

- θ) Is the allocation of FISIM (domestically produced and imported) based on reliable information, in particular as concerns allocation among the sectors/uses having an impact on GNI: intermediate consumption of General Government and NPISH and intermediate consumption/HFCE within households?

Yes.

- ρ) Is FISIM allocated to households broken down into intermediate consumption (households in their capacity as owners of dwellings and of unincorporated enterprises) and final consumption?

Yes. See the first table in section 3.17.4/ (S14BL = Dwelling loans to households; S14BHL = Non-dwelling loans to households).

- σ) Are the data on loans to households broken down into dwelling loans, loans to households as owners of unincorporated enterprises and other loans to households? Are the data on deposits of households broken down into deposits of households as owners of unincorporated enterprises and deposits of individuals?

Yes. See the first table in section 3.17.4/ (S14BL = Dwelling loans to households; S14BHL = Non-dwelling loans to households).

- τ) Is the correction to interest received from and paid to the rest of the world made to offset the FISIM effect on trade (if necessary)?

No.

- 6) Provide information on whether the foreign exchange and securities dealers' margins realised by financial intermediaries are recorded as part of output of financial services.

Yes.

- 7) Provide a detailed numerical illustration of the consecutive stages and individual elements of the calculation and allocation of insurance output. Provide numerical illustration of the impact of the allocation of insurance on GDP and GNI.

The table below shows in detail the calculation of insurance output for the year 2010:

	Assurance vie	Assurance non vie	Réassurance	Coface
Primes ( a )	151 418	89 676	24 011	424
Suppléments de primes ( b )	48 228	4 666	3 059	32
Prestations brutes ( c )	99 101	62 799	22 387	-397
Ajustement des prestations ( d )		-264		
Variation des provisions ( e )	83 440			
<b>P1 ( a + b – c – d – e )</b>	<b>17 105</b>	<b>31 807</b>	<b>4 683</b>	<b>853</b>

Premiums, premium supplements, gross benefits and variations in life insurance reserves are determined in particular from the C1V3 tab (columns “Direct business in France” and “FPS from France”) in this file:

[https://acpr.banque-france.fr/fileadmin/user\\_upload/acp/Controle\\_prudentiel/Documents\\_a\\_remettre\\_en\\_assurance/saisie.mdl.da14.xls](https://acpr.banque-france.fr/fileadmin/user_upload/acp/Controle_prudentiel/Documents_a_remettre_en_assurance/saisie.mdl.da14.xls)

For non-life insurance, see tabs C1MC, C1VC and C1D3. And for reinsurance, the data are determined from the “Acceptances” column in tabs C1V3, C1MC, C1VC and C1D3.

The technique used to calculate expected claims in France was based on that used by the United States *Bureau of Economic Analysis (BEA)* which carries out a smoothing of the “claims to premiums” ratio. Expected claims are calculated, for each type of risk (bodily injury, automobile, transport, etc.), in three steps:

step 1: detection and correction of exceptional values in the “claims to premiums” ratio using

a linear regression model in relation to a linear trend with a time dummy over the years;  
 step 2: smoothing of the series of the adjusted “claims to premiums” ratio with a moving average with linearly decreasing coefficients across a depth of 10 years;  
 step 3: calculation of expected claims = smoothed ratio x premiums.

This smoothing is done for for-profit insurance corporations. On the other hand, gross claims have been kept in the calculation of the output of mutual funds and provident institutions, due

	SIS11	S12K64	S12K65	S13111	S13112	S13131	S13132	S13141	S13142	SIS14AA	SIS14B	SIS15	SIS2
Assurance vie											100,00%		
Dommages corporels associés aux contrats d'assurance vie											100,00%		
Dommages corporels	0,89%									5,61%	93,50%		
Dommages aux biens des particuliers											100,00%		
Catastrophes naturelles	29,10%	0,30%		0,06%	0,12%	1,91%	0,26%	0,19%	0,96%	31,30%	35,50%	0,30%	
Construction	60,50%	1,80%		0,14%	0,30%	4,59%	0,63%	0,45%	2,30%	5,00%	24,10%	0,20%	
Automobile	31,12%	0,66%		0,04%	0,09%	1,42%	0,19%	0,14%	0,71%	11,01%	54,53%	0,09%	
Responsabilité civile générale	15,88%	0,92%		0,12%	0,27%	4,18%	0,57%	0,41%	2,09%	17,95%	57,35%	0,25%	
Protection juridique – Pertes pécuniaires	72,70%	0,82%		0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	3,28%	23,21%	0,00%	
Crédit Caution	72,70%	0,82%		0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	3,28%	23,21%	0,00%	
Dommages aux biens des professionnels	42,71%	2,84%		0,10%	0,22%	3,40%	0,47%	0,33%	1,70%	47,51%	0,00%	0,73%	
Transports	70,00%	1,00%								29,00%	0,00%	0,00%	
LPS													100,00%
Coface	100,00%												
Réassurance			100,00%										

a lack of time depth in the available series.

These insurance service outputs (exclusive of tax) are broken down into consumer sectors using the following matrix (rows: type of risk, columns: consumer sector; each row totals up to 100%):

As there are no exchanges in D441 with the rest of the world, the impact on GNI and GDP of insurance services is identical. This impact is then measured by adding together (NB there is no foreign trade for life insurance services and all the amounts below are exclusive of tax):

- households’ final consumption of life insurance: €17,105m
- households’ final consumption of non-life insurance: €15,082m
- intermediate consumption of S13 in life insurance = €369m
- intermediate consumption of S15 in non-life insurance = €369m
- exports of non-life insurance services: €1,300m
- exports of reinsurance services: €1m  
then deducting:
- imports of non-life insurance services: €648m
- imports of reinsurance services: €78m

In the end, we obtain an impact on GNI (and GDP) of €33,144m.

- 8) Provide information on the treatment of reinsurance services. Are premium supplements included in the reinsurance output.

Yes, premium supplements are included in the calculation of reinsurance output (see the first table in section 3.17.7/).

9) Provide information on how the requirements of the ESA 2010 Chapter 16 and the relevant GNP Committee recommendations on Insurance Measurement (see CPNB/336 and GNIC/015-Rev. 1) are applied. Address the following aspects:

a) Are reinsurance commissions treated as negative reinsurance premiums (i.e. as a reduction in output of reinsurance companies)?

Yes, always using the tables in this document:

[https://acpr.banque-france.fr/fileadmin/user\\_upload/acp/Controle\\_prudentiel/Documents\\_a\\_remettre\\_en\\_assurance/saisie.mdl.da14.xls](https://acpr.banque-france.fr/fileadmin/user_upload/acp/Controle_prudentiel/Documents_a_remettre_en_assurance/saisie.mdl.da14.xls)

Premiums ceded to reinsurers are determined according to the formula (tab C1V3 for example): “Premiums ceded to reinsurers - line 37” - “Commissions received from reinsurers”.

b) Is income earned by the investment of own funds excluded from premium supplements? Is the calculation made on the basis of direct information or by the application of a pro-rata-approach (ratio "own funds/(own funds + technical reserves)")?

Yes, insurers' accounts clearly distinguish between the insurers' own funds and the technical reserves belonging to policyholders. In particular, the technical income statements (operations relating to policyholders) and non-technical income statements are clearly separated.

Furthermore, income from insurer's investments is clearly separated into two parts: one part allocated to the technical income statement (income allocated to policyholders) and another part allocated to the non-technical income statement (income allocated to insurers). More precisely, in life insurance, all of insurers' financial income is included in the technical income statement (CRTV tab: “Income from investments – line 4” - “Investment charges – line 23), but a part of these investments is transferred to the non-technical income statement (CRTV tab: “Income from transferred investments – line 30”). In non-life insurance, it is the opposite that occurs. All of insurers' financial income is included in the non-technical income statement (CRNT tab: “Income from investments – line 4” - “Investment charges – line 23), but a part of these investments is allocated to the non-technical income statement (CRTV tab: “Income from allocated investments – line 9”).

c) Are equalisation provisions in non-life insurance included in the output algorithm as part of adjusted claims incurred (unless "the expectation method" is used).

No. Equalisation provisions in non-life insurance are included in "Other technical reserves" (lines 18 and 19 of the C1D tabs) and are not used in the calculation of gross (i.e. unadjusted) claims.

d) Are claims management costs excluded in the calculation of adjusted claims? Which are the sources and methods used to estimate claims management costs?

“Claims management costs” (line 13 of tabs like C1V or C1D) are not included in the calculation of gross claims either. These costs are actually considered as intermediate consumption of insurers.

- e) Are steps taken to exclude (realised and unrealised) holding gains and losses from the measurement of the output of insurance services (from premium supplements and from the change in the technical provisions of life insurance)?

Yes.

- f) If the country applies the sum of costs method: is there sufficient evidence that the ESA output algorithm described in §3.74 of ESA 2010 would not yield meaningful results (negative output, negative value added, unrealistic swings in the service charge) or that it is not possible to apply due to data reasons? Is the sum of costs estimation method applied consistently over time?

Not applicable.

- 10) Provide information on the treatment of the financial leasing and hire purchase contracts. Are they identified as loans for the acquisition of fixed assets? Are the "rental payments" considered to comprise repayment on principal, interest payment and payment for FISIM, for those lessors who are financial corporations? Is the FISIM part of the rental payments treated as intermediate consumption (producers) or HFCE? (See ESA 2010 §15.13-15.22.)

### 3.18. Real estate activities (NACE Rev. 2 Section L)

In real estate activities (L68), French national accounting identifies buying and selling of own real estate and real estate activities on a fee or contract basis (L68A), actual renting and operating of real estate including the letting of dwellings, but also of offices, shops, etc. (L68R), imputed rentals of owner-occupied dwellings (L68I).

In particular, French national accounting is unable to identify the dwelling rental services output account separately from that of rental services for other real estate (more precisely, the distinction can be made on output, but not on intermediate consumption and value added). On the other hand, the L68A, L68R and L68I output accounts are constructed by institutional sector: for L68R, the output accounts can update value added rates that are quite different between institutional sectors because the division of the output of the institutional sectors between dwellings and no-dwellings is quite different.

- 1) Provide a separate detailed description of the calculation of dwelling services (actual and imputed rents, by different types of dwellings) including numerical evidence.

	Bailleurs personnes physiques	Bailleurs HLM	Autres bailleurs sociaux	Autres bailleurs personnes morales	Propriétaires	Total
<b>Résidences principales et parkings</b>						
Production marchande	39,421	17,329	5,229	1,407		63,387
dont logés gratuitement	2,992	254	1,627	169		5,042
Production non marchande					131,613	131,613
Total						195,000
<b>Résidences secondaires</b>						
Production non marchande					18,868	18,868
<b>ENSEMBLE</b>						
Production marchande						63,387
dont logés gratuitement						5,042
Production non marchande						150,481
Total						213,867

- 2) Provide a table showing the total dwelling stock (number of dwellings and/or square metres), output and IC by types of dwellings.

nombres en milliers	2010
RESIDENCES PRINCIPALES	27,967
individuel	15,958
collectif	12,008
RESIDENCES SECONDAIRES	3,160
individuel	1,859
collectif	1,301
LOGEMENTS VACANTS	2,371
individuel	1,135
collectif	1,236
ENSEMBLE	33,498
individuel	18,952
collectif	14,545

nombres en milliers	2010
LOGEMENTS INDIVIDUELS	15,928
Propriétaires occupants	12,829
accédants	3,918
non accédants	8,911
Locataires	3,130
de personnes physiques	2,221
de HLM	620
d'autres bailleurs sociaux	242
d'autres personnes morales	47
LOGEMENTS COLLECTIFS	12,008
Propriétaires occupants	3,369
accédants	1,239
non accédants	2,130
Locataires	8,640
de personnes physiques	4,117
de HLM	3,485
d'autres bailleurs sociaux	810
d'autres personnes morales	228

- 3) Provide information on how the principles set out in Commission Regulation 1722/2005 on dwelling services are applied for the estimation of imputed and actual rents. Address the following aspects:
- a) Has the stratification method been used?
    - iv. If the stratification method has not been used: Which other objective method has been used?
    - v. If the user-cost method has been used: are the conditions (a) and (b) described in Art. 3(1) of Commission Regulation 1722/2005 met? Is the net operating surplus measured by applying a constant real annual rate of return to the net value of the stock of owner-occupied dwellings at current prices (replacement costs)?
    - vi. If another objective method than the stratification method or the user-cost method is used or if the user-cost method is used without meeting the above mentioned conditions: is a justification provided?
  - b) Has the stratification of the housing stock in the base year been carried out to a suitable level of detail and is it based on actual rents? When was the base year and is it updated regularly?
  - c) Is the allocation of actual rents in the base year consistent with the detail of the housing stock? Are actual rents available for all strata or are some assumptions made for some of the strata? If so, are they plausible?

- d) Are appropriate price, quantity and quality indicators used to extrapolate the base year housing stock and actual rents?
- e) Are imputed rentals for owner-occupied dwellings compiled by making use of actual rents due for the right to use unfurnished privately-owned dwellings?
  - i. If rentals for furnished dwellings are used: are the rentals scaled down so as to exclude payment for the use of the furniture?
  - ii. If public rentals are used (exceptionally if the privately rented sector is small): are they duly increased?
- 4) If the user-cost method (UCM) is used for estimating the output of owner-occupied dwellings, provide detailed numerical evidence on the calculations made for all individual cost components (intermediate consumption, consumption of fixed capital, other taxes less subsidies on production and net operating surplus).
- 5) Provide information on whether the garages used by the owner of a dwelling for final consumption purposes, even if separate from the dwelling, are included in the imputed output of dwelling services.
- 6) Provide information on the treatment of rental-free and cheap dwellings. Is the actual rental observed in those cases corrected to include the full dwelling service?
- 7) Provide information on whether separate estimates are made for the holiday homes. Is the annual average rental of similar facilities or the UCM used to calculate the imputed output of dwelling services of holiday homes?
- 8) Provide information on the treatment of owner-occupied dwellings abroad. Is the rental value of owner-occupied dwellings abroad, e.g. holiday homes, recorded as imports of services and the corresponding net operating surplus as primary income received from the rest of the world? Are analogous entries made for owner-occupied dwellings owned by non-residents? (reference may be made to the description in Chapter 8 on the transition from GDP to GNI for the primary income flows)

#### Output of dwelling services

Dwelling rents are evaluated by the housing satellite account (CSL) within the SoeS and this evaluation is essentially based on household surveys: INSEE's "housing", "rent and charges", and "family budget" surveys. The samples in these studies are drawn from INSEE's master sample, which is based on the previous census and the new housing survey base (from Sitadel), and fitted to the margins taken from these two databases. The housing surveys tell us the last rent paid; they are conducted every 4 or 5 years by INSEE (the 2010 base of the national accounts uses the results from the 2006 housing survey, as the last housing survey, for the year 2013, was not available at the time of creating the base years).

To estimate rents based on the housing survey and to impute rents to owner-occupiers, the CSL uses an econometric model explaining the rent logarithm with the characteristics of the dwelling (size, location, etc.). Two models are estimated, one for houses and a second one for apartments. The explanatory variables are: the number of rooms in the dwelling, the average surface area of the rooms, the facilities (bathrooms, central heating), the age of the dwelling, the number of dwellings in the building, the location of the dwelling, the size of the urban unit (distinguishing between city centres and the suburbs) the presence of a balcony, patio or

loggia, the presence of a lift, presence of an annex, presence of an individual garage, the tenant/landlord relationship, the wealth of the environment, etc. For the calculation of imputed rents, the econometric model excludes social housing. Furnished dwellings are also excluded.

Each housing survey provides information about the rents paid by tenants at the time of the survey and allows the imputed rents to be calculated for the year during which the survey is conducted. Between two housing surveys, interpolations are therefore necessary to evaluate annually the mass of rents or extrapolations after the last survey year. For these evaluations, the housing satellite account (CSL) has a rent amount by sector and type of dwelling (individual/collective) for the years when housing surveys are conducted.

Between two housing surveys, the amount of rents changes under the effect of changes in constant-quality rents (evaluated on the basis of the “rents and charges” surveys) and transformations in the housing stock (change in the number of dwellings estimated each year based on information from population censuses, local residence tax, the Identified Buildings Register (RIL) and the building permits database), the average surface area of dwellings, the quality of rents: the change in the quality of dwellings is assumed to be equal to the annual change in quality observed between two housing surveys. The quality effect is calculated by the CSL as the residual effect between the change in rents given by the housing survey and the changes in price between two surveys.

Rents of collective housing parking spaces are estimated separately and added onto dwelling rents. However, parking space rents for individual houses are by convention included in the rent for the dwelling itself. The family budget survey allows rents for collective housing parking spaces to be evaluated. Housing surveys provide information on the rate of parking space ownership.

Rents of second homes are estimated by allocating an annual rent estimated according to the method used to calculate the imputed rents of owners of main residences. This amounts to ignoring on the one hand the fact that second homes are generally not occupied all year round and should not generate any output when they are vacant, and on the other hand the fact that holiday rental rents (where a household rents its holiday home by the week) are generally higher than those of year-round residences.

An estimation was made of the impact of this simplifying hypothesis by taking into account the actual occupancy rate of second homes and the actual rents received by owners temporarily renting out their second home (using data from the General Directorate for Competitiveness, Industry and Services (DGCIS), in particular the Tourist Demand Survey (SDT), the survey carried out with overseas visitors). It was found that the rents of second homes calculated with this more precise method are of the same order of magnitude as with the simplifying hypothesis actually used in the national accounts.

In addition, no adjustment is made for second homes owned by foreigners. This question was studied within the framework of transversal reservation no. I in ESA 1995, relating to property income flows with the rest of the world: the conclusion was that the amounts in play did not significantly affect the estimation of the GNI.

Finally, in the case of people accommodated rent-free or for a symbolic rent, a “normal” level rent is estimated by the CSL based on an econometric model measured on real rents and a dwelling services output of an equivalent amount imputed to the owners.

The output of real estate activities (including rents) of the institutional sectors excluding households

This output is estimated from the structural enterprise data for non-financial enterprises, data from the Banque de France for financial enterprises and from the Public Finance Directorate General (DGFIP) for general government.

- 9) Provide information on whether the rents used in the calculation of output of dwelling services exclude charges for heating, water, electricity, etc. Are these charges also excluded from intermediate consumption in dwelling services?

Yes, the rents used are rents excluding charges. Heating, water and electricity charges are excluded from the intermediate consumption of households as producers of dwelling services. This is very often not the case for social dwellings: social housing providers charge tenants sums that include not only the rent but also the cost of water, electricity and heating. These sums appear both in the output and the intermediate consumption of the social housing providers, so that the estimation of the value added is correct. The sums paid by tenants are posted fully as final rent consumption, so that the final rent consumption is probably overestimated and the final water, electricity and heating consumption is underestimated (but the estimation of the total final consumption is correct).

- 10) Provide an explicit list of the items included in intermediate consumption in dwelling services, separately for rented dwellings (by types of ownership, if relevant) and for owner occupied dwellings. Explain the treatment of FISIM and insurance related to dwellings.

The intermediate consumption (IC) of real estate activities on a fee or contract basis (L68A) is estimated based on ESANE structural enterprise statistics.

Intermediate consumption for imputed dwelling service activities (L68I), only produced for households (owner-occupiers) is estimated on the basis of the CSL evaluations.

Actual rental and real estate operating activities (L68R) include both dwelling services and the letting of offices, produced by different institutional sectors. In line with the rest of the account, the IC of non-financial enterprises producing an activity classified under L68R is estimated from the structural business statistics, without distinguishing between what is intermediate consumption for the letting of dwellings or offices. On the other hand, the output of actual letting activities by households (which almost exclusively includes dwellings) as well as the associated intermediate consumption are estimated from the CSL.

For dwelling services, rents are measured exclusive of charges recoverable by the owner. The division of the charges is determined by law (Decrees no. 82-955 of 9/11/1982 and no. 82-1164 of 30 December 1982). Water, electricity and heating charges are by definition recoverable charges: they are excluded from rents and therefore from intermediate consumption, but included in tenants' or owner-occupiers' final consumption. This treatment required the correction of the business data on social landlords, who were found to be declaring in their output and charges the charges recoverable from their tenants: this

correction has no effect on value added, as it consists of symmetrically reducing the output and the spontaneous intermediate consumption of these enterprises.

The intermediate consumption recorded includes maintenance and minor repairs of common areas, building managers' fees, minor works, remuneration of intermediaries (such as estate agents), insurance, FISIM, the different expenses concerning vacant rentals (including the recoverable charges as by definition they are borne by the owner for the vacant periods...).

Intermediate consumption in minor works, equal to 2% of dwelling services, corresponds to the small jobs carried out by owners between two tenants (which the owner cannot therefore be reimbursed for by the tenant). An intermediate consumption of the same size is imputed to owner-occupiers.

Dwelling insurance output is determined using the data from the prudential supervisory and resolution authority (ACPR). The part of the insurance that applies to co-ownership-type dwellings and classed as intermediate consumption is measured based on the cost per m<sup>2</sup> of insurance for co-ownership dwellings published by the UNIS (real estate federation). FISIM are measured using data from the Banque de France; all FISIM relating to mortgages are recorded as intermediate consumption.

- 11) Provide information on the treatment of owner-occupiers' expenditure on decoration, maintenance and repair of dwellings not typically carried out by tenants (is it treated as intermediate consumption and not household final consumption?).

Intermediate consumption is imputed for these items (cf. other conceptual adjustments in section 3.4).

- 12) If cooperative dwellings exist provide information on the compliance with the recommendations of the GNI Committee on cooperative dwellings (see document GNIC/231).

This type of dwelling does not exist in France.

### **3.19. Professional, scientific and technical activities (NACE Rev. 2 Section M)**

- 1) Provide information on whether separate local KAUs are set up for research and development (R&D) expenditure in major organisations involved in R&D activities. Yes, this is common.
- 2) Describe the steps taken to ensure that:
  - a) R&D by specialised commercial research laboratories and institutes is valued at revenues from sales, contracts, commissions, fees, etc.

The source used to measure the output of these units, namely ESANE data, provides an output at market cost (producer price). To switch from output valued at the producer price to output valued at the basic price, taxes on products are deducted from the output and subsidies on products are added to it.

- b) R&D for use within the same enterprise is valued on the basis of the estimated basic prices that would be paid if the research were sub-contracted commercially or, alternatively, at total production costs (plus a mark-up – except for non-market producers – for net operating surplus or mixed income)  
In such cases, enterprises are obliged (for tax purposes) to value R&D output at the price that would be paid if the activity were subcontracted outside the group. We therefore take the accounting data directly to value the output of R&D producing units.
- c) R&D by government units and non-profit research institutes is valued as the sum of costs of production? Are revenues from the sale of R&D by non-market producers of R&D recorded as revenues from secondary market output.

The R&D produced by non-market entities is indeed valued as the sum of production costs. Any revenues obtained from the sale of these units are recorded as secondary market output.

Alternatively reference may be made to the description in the section 5.10 of the Inventory. Provide numerical evidence that the templates agreed by the Task Force on Capitalisation of Research and Development in National Accounts (DMES 2012/11/08) are used to calculate output and GFCF in R&D. Alternatively reference may be made to the numerical evidence in the section 5.10 of the Inventory.

Provide information on how the own-account production of software is excluded from the estimates of own-account R&D. Alternatively reference may be made to the description in the section 5.10 of the Inventory.

- 3) Outline how the recommendations of the Task Force on the Capitalisation of R&D in National Accounts (DMES 2012/11/08) are applied. Detailed description should be provided in the section 5.10.
- 4) Outline how the recommendations from the GNP Committee on Software Measurement (CPNB/313 and GNIC/015-Rev.1) are applied. Detailed description should be provided in the section 5.10.

### **3.20. Administrative and support service activities (NACE Rev. 2 Section N)**

- 1) Provide information on the treatment of operational leasing. Is it identified as a service? Are revenues from operational leasing (to be measured by the value of the rental paid) treated as output of services? Is operational leasing expenditure treated as intermediate consumption (producers) or HFCE (consumers)?

Yes, the general accounting plan (PCG) ensures that the rents are recorded as turnover for renters and as external expenses for the enterprises renting the goods. The accounting data can therefore be used directly, with no particular retreatment needed.

- 2) Provide information on the treatment of output of travel agencies. Is it measured as the value of fees and commissions charged and not as the full expenditures made by travellers?

The PCG ensures that the turnover of travel agencies includes only the remuneration of their services (commissions).

- 3) Provide information on the treatment of output of tour operators. Is it measured by the full expenditures made by travellers to the tour operators?

Yes.

### **3.21. Public administration and defence; compulsory social security (NACE Rev. 2 Section O)**

- 1) If there is a uniform methodology for all non-market output, this may be included here, and referred to in other sections.

Non-market output is estimated as the sum of costs: intermediate consumption (P.2), compensation (D.1), taxes paid on production (D.29) net of subsidies received on production (D.39), consumption of fixed capital (P51C).

### **3.22. Education (NACE Rev. 2 Section P)**

- 4) Demonstrate that the distinction between market and other non-market units and between their market and non-market output is made in line with the criteria set out in ESA 2010 (§§ 3.27-3.41 and 20.05-20.55).

Three types of producers must be distinguished.

First of all, the production of education services by local public education institutions (EPLE) and public universities. Tuition fees represent a negligible portion of the production costs and these are non-market units (sector S.13).

Secondly, the production of education services by private institutions not under contract to the State: these units charge high tuition fees, which finance most of their production costs (a part of their production costs may also be covered by donations): these institutions are considered as market units (sector S.11).

Thirdly, the production of education services by private institutions under contract to the State. In practice, the activity of such institutions is highly controlled by the contract with the State (school curriculum, opening of new classes, etc.) and all the staff costs are covered by the State. The tuition fees charged by these institutions only cover a minor part of the production costs as staff compensation is paid by the State. These entities are considered as non-market units (sector S.15).

### **3.23. Human health and social work activities (NACE Rev. 2 Section Q)**

- 1) Demonstrate that the distinction between market and other non-market units and between their market and non-market output is made in line with the criteria set out in ESA 2010 (§§ 3.27-3.41 and 20.05-20.55).

Most healthcare expenditure is in practice covered by the public health insurance schemes. The distinction between what is market output and what is non-market output requires that the nature of the payments made by the health insurance schemes be analysed more precisely, according to the type of producer and whether we are looking at hospital or ambulatory care.

As regards hospitals, three types of producers must be distinguished. Per-activity pricing (T2A), which is based on the payment by the health insurance system of fixed rates per treatment, concerns all three types of producers.

First of all, the production of healthcare services by public hospitals. The sums paid by patients (which concern mainly accommodation costs) represent a negligible part of production costs. Public hospitals cannot freely choose to specialise in any particular fields of treatment and are not in real competition with each other (except in very densely populated regions like the Paris region, many hospitals operate a sort of local monopoly). It is public agencies, the regional health agencies (ARS) that decide the areas of specialisation of each establishment. Against this background, the payments under the T2A scheme can be interpreted more as an instrument of rationalisation of the public offering than as a tool for increasing competition between public hospitals. The latter are all considered as non-market units (sector S.13).

Secondly, the production of healthcare services by private for-profit clinics: these units are free to choose the medical specialities they wish to offer and are in fierce competition with one another (clinics regularly go bankrupt). Patients' payments represent a larger part of operating costs than in public hospitals due to extra-billing not covered by the health insurance system. In this context, the payments under the T2A scheme can be analysed as a purchase of services by the health insurance system and these entities are considered as market units (sector S.11).

Thirdly, the production of healthcare services by non-profit establishments known as public interest private health establishments (ESPIC). Although legally private entities, these establishments operate under similar conditions to public hospitals (in terms of pricing and the role of the ARSs in determining their areas of activity). These entities are considered as non-market units and are classified under general government (sector S.13) due to the low level of autonomy.

Finally, ambulatory care is generally provided by self-employed practitioners (doctors, nurses, physiotherapists, etc.). Although most of their income comes from the payments of the health insurance system, they are paid by the act and are in competition with each other. In this context, the payments of the health insurance system are analysed as purchases of services, which is why these practitioners are classified as non-financial corporations and non-financial unincorporated enterprises (S.11+S.14AA).

Regarding social work activities, the analysis is carried out activity by activity, in order to determine in which cases market revenues cover the majority of the production costs.

### **3.24. Arts, entertainment and recreation (NACE Rev. 2 Section R)**

- 1) Demonstrate that the output from both stages of the production process of books, recordings, films, software, tapes, disks, etc. is measured according to the ESA 2010 §3.86.

The provisions of the PCG guarantee that the accounting recording of the flows is compliant with paragraph 3.86.

- 2) Outline how the recommendations from the GNP Committee on Entertainment, Literary and Artistic Originals (see GNIC/010 and GNIC/022) are applied. Detailed description should be provided in the section 5.10.

### **3.25. Other service activities (NACE Rev. 2 Section S)**

- 3) Provide information on how the recommendations from the GNP Committee Task Force on Distribution (CPNB 205) related to exhaustiveness are applied. Address the following aspects:
  - a) Are the repairs of household goods estimated on the basis of or validated against expenditure?

Output of repair services for household goods is estimated on the basis of the accounts of companies listed in this sector. A substantial adjustment is made for fraud (+€987m on the valued added for adjustment N1, +€3,634m for adjustment N7).

- 4) Provide information on the illegal activities classified in this section (in particular prostitution; detailed description of measures taken to address absence from statistical files of illegal producers – type N2 – should be made in the Chapter 7 on exhaustiveness).

No adjustment is explicitly made for prostitution. In France prostitution itself is not an offence (only procuring is). A distinction is made between street prostitution and the output in premises such as bars, massage parlours, etc. The former is massively practised by illegal immigrants, very often minors, who are coerced into it by pimps. The conditions under which street prostitution takes place mean that the criterion of mutual consent of parties is not guaranteed and this activity does not qualify as “output”. Prostitution in bars or massage parlours is not identifiable as such. When it is declared it is not possible to distinguish it from the actual bar or massage parlour activities. Prostitution in such places is presumed to be included in general sources (businesses' accounts) and adjustments are made for fraud.

### **3.26. Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use (NACE Rev. 2 section T)**

- 1) Provide information on whether income in kind, in particular food and accommodation, is included in the estimates of remuneration paid to employed staff. No adjustment is made for payments in kind.
- 2) Provide information on the specific adjustments made for under-coverage in this activity.

Substantial adjustments, assessed by experts, are made to account for fraud (adjustment N1, impact of +€2,213m on value added).

Households' output under activities of households as employers (section T) represents the costs incurred by private households when employing domestic personnel that they pay

directly, as long as the services do not count as social work activities (in which case they are classified under section Q).

This output is measured based on data from the Central Agency for Social Security Organisations (ACOSS), which collects social contributions and with which the administrative formalities relating to the employment of domestic workers by private individuals must be accomplished. The ACOSS data distinguishes between a “non-fragile” public and a “fragile” public (services for the latter falling within the field of social work activities, section Q). As benefits in kind are liable for social contributions, they must be declared by private individual employers to ACOSS and are therefore naturally included in the amounts of household output, without being able to be precisely identified.

Not all households fulfil their obligations as employers with ACOSS. An adjustment is therefore made for undeclared work, based on the number of hours worked in the household, but also the legislation (many subsidies, exemptions and tax credits have been introduced over the last 20 years, which have contributed to the “laundering” of undeclared work). The proportion of households employing domestic help without declaring it was evaluated in 1996 at about 50% (by a survey conducted by INSEE Flipo A., 1998); it is thought to have fallen to 30% in 2005 and to have started rising again in 2013.

### **3.27. Activities of extraterritorial organisations and bodies (NACE Rev. 2 section U)**

- 1) This section is relevant for chapter 8. No description is required here.

### 3.28. Taxes on products, including VAT

1) Show the most important taxes on products, including figures for the reference year.

ESA 2010 Code	Name	Amount (in millions of Euros)
<b>D.211</b>	<b>VAT</b>	<b>135,578</b>
<b>D.212</b>	<b>Total</b>	<b>2,180</b>
	Incl. Import duties	1,752
<b>D.214</b>	<b>Total</b>	<b>75,427</b>
Incl.	Domestic consumption tax on energy products	23,577
	Taxes on tobacco	10,784
	Special tax on insurance policies	6,021
	Taxes on beverages	3,237
	Electricity public service contribution	1,936
	Tax on vehicle registration certificates	1,917
	Tax on lottery revenue	1,800
	Electricity tax	1,781
	Contribution to the funding of universal health cover	1,637
	Construction tax	1,374
	Transport taxes	1,307
	Miscellaneous pollution taxes	1,167
	Taxes on professional services excluding transfer duties	1,043
	Tax on car insurance premiums	954
	Film companies' contribution	766
	Tax on horse race betting	754
	Tax on casino games	748

2) Provide a description of the classification rules applied to taxes on products, particularly in borderline cases between a tax and a purchase of a service. These borderline cases should be listed and explained in more detail.

The main borderline cases identified concern the roadsweeping tax and the refuse collection tax (TEOM), which are treated as payment of services produced by local authorities, and the audiovisual licence fee, considered as a market revenue for the public radio and television companies.

3) Describe the steps taken to ensure the application of the accrual time of recording principle to the estimates of taxes on products (including VAT). Address the following aspects:

α) Which sources have been used for the calculation of taxes on products: cash receipts or assessments and declarations?

The calculation is based on cash receipts. In the specific case of VAT, cash receipts are used. Reimbursements and exemptions are treated as reductions in revenues.

β) If cash receipts are used: are the cash receipts time-adjusted so that the cash is attributed when the activity took place to generate the tax liability?

For the two most significant taxes on products (VAT and the domestic consumption

tax on energy products), time-adjusted cash receipts are used to attribute the cash to the same period as the activity that generates the tax liability.

For all other taxes on products cash receipts are used without being time-adjusted.

- χ) If cash receipts are time-adjusted: is the adjustment based on the average time difference between the activity and cash tax receipt or is it based on another method? If it is based on another method: which method has been used for the time adjustment?

Yes, it is based on the average time difference between the activity and collection of the tax (1 month for VAT)

- 4) Describe the adjustments made to take account of tax (including VAT) amounts unlikely to be collected (Regulation (EC) No 2516/2000). Address the following aspects:
- d) If assessments and declarations are used: are the amounts of taxes on products adjusted by a coefficient reflecting assessed and declared amounts never collected or is – as an alternative approach - a capital transfer to the relevant sectors recorded equal to the same adjustment?

We do not use “assessments and declarations”.

- e) If assessments and declarations on taxes on products are adjusted by amounts never collected or if the alternative approach of capital transfer is applied: are the adjustments estimated on the basis of past experience and current expectations in respect of assessed and declared amounts never collected? Are there specific estimates of the adjustments for taxes on products (and not just globally for all taxes on production)?
- f) If time adjusted cash amounts of taxes or assessments and declarations decreased by an amount unlikely to be collected are used, is an adjustment made to cover the amounts unlikely to be collected in the GDP derived from the production approach?

Yes, the output is increased by the amount of the difference between the VAT theoretically due (calculated by applying the VAT rates to the ex VAT amounts of the uses: intermediate and final consumption, GFCF) and the VAT actually collected.

- 5) Describe the treatment of vehicle registration taxes. Are they treated as taxes on products? Provide detailed information on the nature of the transactions related to car registration.

The tax on registration certificates is payable by purchasers of a land motor vehicle (new or used). It therefore applies to the transactions and is analysed like any other tax on products (D.214).

### 3.29. Subsidies on products

- 1) Show the most important subsidies on products, including figures for the reference year.

ESA 2010 code	Name	Amount ( in millions of Euros)
<b>D.319</b>	<b>Total</b>	<b>15m86</b>
Incl.	Transfer from the STIF to the SNCF and RATP	3,803
	Subsidy paid to EDP for the public electricity service	2,654
	Subsidies paid to the rail infrastructure company (RFF)	2,508
	Regional subsidies for regional express train services	1,948
	European Agricultural Guidance Fund subsidies	1,207
	Clean vehicle subsidy	
	Car scrap scheme	710
	Tax credit funding home-based services	669
		607

- 2) Provide a description of the classification rules applied to subsidies on products, particularly in borderline cases between a subsidy and a social transfer. These borderline cases should be listed and explained in more detail.

The main borderline case identified is the tax credit received by households using a domestic help paid by a service provider. Returnable by nature, this tax credit is treated as an expense. Insofar as it is due for every transaction between the beneficiary household (which is not the employer) and the service provider, the amount of the tax credit is recorded under other subsidies on products (D.319).

- 3) If car scrap schemes exist(ed), describe the functioning of the scheme and the treatment in national accounts. Demonstrate how the recommendations of the GNI Committee on the Treatment of Car Scrap Schemes (GNIC/232) are followed.

Such a scheme existed in the 1990s, and again from 2009 to 2012. As the car-scraping bonus was dependent on the purchase of a new vehicle, it was recorded under other subsidies on products (D.319).

- 4) Describe the steps taken to ensure the application of the accrual time of recording principle to the estimates of subsidies on products.  
We use cash receipts without time adjustment.

## **CHAPTER 4 THE INCOME APPROACH**

(This chapter should be around 50-100 pages in length. If dominant approach may be more)

### **4.0. GDP according to the income approach**

- 1) Provide a table describing the breakdown of compensation of employees, taxes on products, other taxes on production and imports, subsidies on products, other subsidies on production, gross operating surplus and mixed income (in the reference year) by NACE sections. This table should be consistent with the information provided in the Process Tables.
- 2) Provide a table describing the breakdown of compensation of employees, taxes on products, other taxes on production and imports, subsidies on products, other subsidies on production, gross operating surplus and mixed income (in the reference year) by institutional sectors (S11-S15).

### **4.1. The reference framework**

- 1) List main sources used for each institutional sector and describe in more detail the most important ones (reference may be made to Chapter 10 on the main data sources used).
- 2) Provide information on to which extent the following requirements relating to the quality of the statistical sources used for the income approach are met (reference may be made to the description in the chapter 7 on exhaustiveness):
  - a) Are annual data collected on each component of the income approach through regular enterprise surveys?
  - b) For the components surveyed, are all size classes covered?
  - c) Are periodic surveys carried out regularly (for surveys carried out less frequently than every year)?
  - d) Are ad-hoc surveys conducted to complement regular inquiries?
    - a. Are administrative data obtained on a regular and timely basis in order to have good quality estimates quickly?

The income approach is closely linked in the national accounts to the production approach (cf. Chapter 3).

For most of the activities we have exhaustive accounting sources on the producer institutional sectors, and these accounting sources produce the statistical material necessary to the calculation of the national accounts in both the production approach and the income approach. The reference framework described in chapter 3 therefore also applies to the income approach.

There is, in actual fact, no real income approach. To take an example, the compensation of employees in the economy is not measured using a unifying statistic covering the entire population of employees, or even a vast part of that population. Knowledge of the compensation of employees actually comes from employers. This observation is even more relevant concerning the operating surplus, which is known only from sources specific to each

category of producer – and in certain cases obtained from the balance of the generation of income account.

The conceptual adjustments made to the basic data, as well as the methods intended to improve their completeness are specific to each of these groups, and they are therefore presented in each of the sections corresponding to these groups. Except at the risk of repeating ourselves, there is no point in giving a general presentation.

It is possible to distinguish five different cases:

- value added, calculated via a “top-down” approach, at institutional unit level, and presented component by component: this is the case of the financial sectors in general;
- value added calculated “top-down” in a branch-oriented approach is presented component by component and allocated to the institutional sectors: this concerns agriculture and other primary activities, and housing;
- the calculation of the components in value added is a necessary step to calculate production using a “bottom-up” method: this is the case of general government and NPISH;
- the calculation of value added is based, at least for certain versions of the accounts, on the addition of its components: this is the case of non-financial enterprises;
- households are a case apart: their accounts have to be recompiled.

The sources used for the income approach are basically the same as for the production approach given the overlap between these two approaches. What is said in chapter 3 on the reference framework and the sources used (surveys and administrative data) also applies to this chapter.

In the rest of this chapter a generation of income account is presented in each of the sections, for each of the following 9 groups:

- General government
- Financial intermediaries
- Insurance enterprises
- Non-financial corporations and non-financial unincorporated enterprises whose principal activity does not come under agriculture, forestry or fishing
- agricultural SNFEIs
- Forestry and logging SNFEIs
- Fishing and aquaculture SNFEIs
- Households excluding unincorporated enterprises
- NPISH

#### 4.1.A The income approach for general government

In the part devoted to general government output, it appears that there are two models of accounting information for general government:

- State accounting,
- the general accounting plan (PCG) or an accounting organisation that is derived from it.

The presentation of the components of value added follows this distinction.

## **A.1 Compensation of employees**

### **A.1.1 The State**

As far as the State is concerned, most transactions are recorded in the general budget, where expenditure is structured by ministry, and within each ministry, in articulated sections referring to the reason for the expense and its economic nature. The ministries' current operating expenses are tracked under heading III: "Departments' resources", according to an extremely detailed classification.

We therefore have for each ministry:

- the compensations paid: salaries, bonuses, various allowances, etc.;
- the contributions payable by the State as an employer;
- social benefits except pensions paid to former employees.

In addition, the classification shows whether these compensations concern ministry staff or staff belonging to specialised, or in some cases decentralised, establishments. This facilitates the distribution by sector of the operating costs. Conversely, it happens that the structure of these costs can only be appreciated for the whole of general government. If we take the example of education, the entire compensation of the teaching and administrative staff is included in the ministries' expenditure. On the other hand, other operating expenses and gross fixed capital formation are recorded in the accounts of miscellaneous central government agencies (ODACs) in the case of tertiary education, in those of local government in the case of pre-primary, primary and secondary education.

Furthermore, the State pays the staff employed by private educational institutions that are under contract, which are classed as NPISH.

In principle only the flows corresponding to expenditure in the economic territory, i.e. metropolitan France, the overseas departments and territorial enclaves outside metropolitan France, are included. Consequently, the staff costs of the civil service in the overseas territories as well as compensation paid to people doing voluntary service overseas (civilian or military) and French teachers abroad are recorded under "Current international co-operation" (D.74).

A certain number of remarks must be made about the evaluations concerning the compensation of employees. Cash wages include wages that continue to be paid to staff on sick or maternity leave, as it is not possible to isolate them to record them as direct social benefits and to create a circuit of imputed social contributions. This has no impact on the total amount of compensation of employees.

Compensation in kind includes more particularly the following items:

- maintenance costs (clothing and food) of military personnel;
- coverage of reduced transport fares for military personnel when they are off duty;
- the subsidies paid to staff canteens to reduce the price of meals for the least well paid categories of staff;
- compensation for dwellings made available to staff free of charge;
- luncheon vouchers.

As far as social contributions are concerned, the mechanism for recording social contributions and benefits differs according to the category of personnel. For contract public employees, the State acts like a private employer and pays contributions to the different social security

regimes (basic regimes, complementary social insurance schemes).

For permanent public employees, the situation is more complex and varies according to the risks:

- social security contributions for health and maternity only cover benefits in kind, as the State itself pays the cash benefits (wages maintained). The latter are not counted as imputed social contributions, but as gross wages and salaries (see above);
- the obligatory family benefits are paid by the social security system and the State pays actual contributions in return, at the same rate as other employers.

Concerning retirement pensions, the State pays them directly to its former civilian and military employees and the persons covered by their insurance. In the administration of this regime, it deducts a contribution from working civil servants' wages, which is recorded as actual social contributions payable by employees. The difference between these benefits and these contributions is the subject of an imputed social contributions circuit.

In addition, the State is involved in demographic compensation. This compensation is intended to remedy disparities between the regimes, connected to the ratios between the number of contributors and the number of beneficiaries. Each retirement pension regime is compared to a fictitious reference regime. In this comparative system, the State, as an employer, finds itself a beneficiary and it pays by way of compensation. This payment is a component in its wage costs and it is recorded under imputed social contributions.

Certain direct benefits, such as the family wage supplement, are detailed in the expenses of the different ministries. The same does not apply to retirement pensions. These, as well as the demographic compensation payments, appear lumped together in a Ministry of Finance subdivision, "common charges". This allows the imputed social contributions to be calculated, but a fixed allocation key has to be used to divide up the different imputed contributions between the different sectors.

For the State, benefits, net of actual contributions, and imputed contributions are not equal.

The imputed contributions are calculated as follows: Civilian and military pensions

- + Other benefits paid direct by the employer
- + State's demographic compensation payment
- + Retroactive affiliations
- Deductions for civilian and military pensions
- = Imputed social contributions

### **A.1.2 The other general government units**

The other general government units concerned are those whose data are organised in accordance with the general accounting plan (PGC), whether they are non-market units: miscellaneous central government agencies (ODACs), local government and social security funds – or market units – and the market sectors of general government in general.

The compensation of employees is evaluated using the accounting data. Account 64 "Personnel expenses" in the general accounting plan, which will vary in the amount of detail provided depending on the size of the unit, makes it possible to obtain satisfactory evaluations of the different sections of compensation of employees.

In the particular case of public employees belonging to local government or the hospital sector, the pensions received by retired employees do not give rise to a direct social benefits and imputed social contributions circuit. Indeed, civil servants and their employers pay into a

specific fund, which is classified as a social security fund. The imputed social contributions correspond to fringe benefits such as the family wage supplement.

## **A.2 Other taxes/subsidies on production**

The taxes payable by the non-market branches are very low. They mainly concern taxes on wages payable by employers. There are no other subsidies on production.

## **A.3 Gross operating surplus**

It is necessary to distinguish between the market and the non-market sectors.

### **Non-market sectors**

The gross operating surplus of the non-market sectors is equal to their consumption of fixed capital. Consumption of fixed capital, which represents the economic depreciation suffered over the year by the fixed capital, is calculated in principle by the perpetual inventory method. In the absence of direct data on the assets of the units concerned, the perpetual inventory method allows the calculation of coherent series of fixed capital and consumption of fixed capital from long series of gross fixed capital formation at constant prices subject to two hypotheses: the first concerns assets mortality functions, assumed to be log-normal, and the second assumes that straight-line depreciation is applied. The main parameter of log-normal distribution is the average life of the assets.

The capital and consumption of fixed capital series are calculated at a detailed level of breakdown: the institutional sectors are broken down into sub-sectors and these have assets made up of different types of equipment.

The average lifetimes used are 5 years for computer hardware and software, 10 years for R&D, 7 to 15 years for transport equipment, 10 years for communication equipment, 20 years for weapons systems, 9 to 21 years for other machinery and equipment, from 25 to 30 years for non-residential buildings, 60 years for civil engineering structures and 70 years for dwellings.

### **Market sectors**

For the market sectors, the gross operating surplus is calculated as the balance of the generation of income account.

## **4.1.B The income approach for non-financial enterprises**

Structural information on non-financial enterprises (NFEs, also known as non-financial corporations and non-financial unincorporated enterprises - SNFEIs) is collected in ESANE, which was presented in chapter 1. Chapter 11 on sources provides a more detailed presentation of ESANE, the fields it is made up of, its content as well as the treatments carried out in it. The link between ESANE transactions and the business accounting headings it is built around is also explained.

The data on non-financial enterprises (corporations and unincorporated enterprises), collected in the Intermediate system, are transferred to their national accounting accounts according to a

procedure known as conversion to national-accounts format (PAC). This section presents the principles, methods and results of this system.

It is important to point out a difference in the way, for non-financial corporations and unincorporated enterprises, the data from ESANE are integrated into the synthetic tables – the input-output table and the integrated economic accounts. Indeed, for certain activities – agriculture, forestry and fishing – the value added is calculated based on information other than that in ESANE. Only the accounts of unincorporated enterprises include the counterpart of the difference between the value added finally used for these activities and that arising spontaneously from the ESANE treatment. On the other hand, all the data for the production and generation of income accounts come from the ESANE treatment for NFCs.

This particularity has consequences for the explanations that follow. The data that illustrate the conversion to national-accounts format (PAC) of the accounts of NFCs concern their entire scope, including all their activities. However, the PAC of UEs concerns only the scope covered by ESANE, that is, the activities excluding agriculture, forestry and fishing.

### B.1 Non-financial corporations

The national accounts of non-financial enterprises cannot be assimilated directly with ESANE, for two main reasons. First of all, ESANE is drawn up in line with business accounting practices and does not correspond totally with the concepts of national accounting, nor with the scope that it aims to cover. And secondly, in the national accounts system, enterprises' accounts must be rendered consistent with those of the other institutional sectors and with the goods and services account, whereas theoretically there is nothing to guarantee that this consistency can be achieved.

National accounting differs conceptually from business accounting. Thus, in business accounting, non-life insurance premiums, the expenses relating to the acquisition of fixed assets, the benefits in kind granted to employees on products purchased are all operating costs that the national accounts do not include in intermediate consumption in the same way as most operating costs, but in distributive transactions, capital transactions and primary income respectively. Furthermore, ESANE only records the declared activities of declared units, whereas the national accounts aim to cover all activities exhaustively, which means that complementary evaluations are necessary.

National accounting, it should be remembered, is a quadruple entry system, which imposes constraints that do not exist in business accounting. It means that a transaction must be recorded identically in the accounts of the different units/sectors who were parties to that transaction. The coherence sought is obtained by ranking statistical sources, which may apply to all the transactions of a given unit or only certain characteristic transactions. Among the constraints imposed particularly on the accounts of non-financial enterprises, is the pre-eminence of general government accounts and the need for “fitting” on certain specific transactions with financial corporations.

The compilation of the accounts of non-financial enterprises from ESANE therefore supposes that a treatment procedure be set up, i.e. the conversion to national-accounts format (PAC) procedure. This includes four types of modifications made to the enterprises' original accounting data:

1. It deals with the differences in concepts and recording rules between business accounting and national accounting.
2. It takes account of a certain number of adjustments for fraud and tax evasion and for the underground economy. These adjustments complete those made in ESANE for reasons of absence.
3. It ensures coherence with the accounts of the other institutional sectors: general government, financial institutions, insurance corporations, relations with the rest of the world.
4. It applies the counterpart principle: as the ESANE accounts are balanced from the start, a correction made to any variable must have a counterpart on another variable in order to preserve the initial balance.

The general conversion to national-accounts format (PAC) method therefore consists of identifying an ESANE transaction with a national accounts transaction, which is generally easy thanks to the deliberate attempt to align the classification of the accounts and transactions in the two systems. Next, the various corrections mentioned above are made. The initial correspondence between the ESANE transactions and the national accounting transaction is as shown in Table 4.4.

**Correspondence table between ESANE accounting items and the national accounting transactions**

ESANE accounting items (standard account)	National accounting transactions
<b>Production account</b>	
Production	Production (P.1), at producer price
Intermediate consumptions	Intermediate consumption (P.2)
Gross value added	Gross value added (B.1G), at producer price
<b>Profit and loss account</b>	
Payroll	Compensation of employees (D.1)
Taxes and similar levies	Taxes (part D.2, part D.5)
Operating subsidies	Subsidies (D.3)
Gross operating surplus	Gross operating surplus (B.2G)
<b>Distribution of income account</b>	
Other operating charges	Property income (D.4)
Interest payable and similar charges	Interests (D.41)
Interest receivable and similar income	Interests, dividends and other investment income (D.41, D.42, D.443)
Gross pre-tax operating profit	Gross disposable income (B.6G)

Given that the counterpart principle applies, it is important to understand that not all corrections necessarily have an effect on Domestic product or its components. A few examples can be given to illustrate this point:

- certain corrections involve reclassifying as wages and salaries transactions that were classified as social contributions in ESANE: they do not therefore make any difference to the

payroll costs that come out of ESANE;

- other corrections do involve correcting the compensation of employees, with as their counterpart a symmetrical correction of the initial ESANE gross operating surplus: two components of value added are thus altered, without value added itself changing;
- the reclassification as taxes on production of certain payments recorded in enterprises' external charges, and therefore in intermediate consumption in ESANE, changes neither the compensation of employees nor the gross operating surplus: however, it does have the effect of increasing GDP through the value added, at the basic price or producer price, of the enterprises;
- finally, the corrections made in the interests of exhaustiveness generally have as their counterpart an increase in output, value and GDP: the components that are affected are, for example, the compensation of employees in the case of tips, gross operating surplus in the case of tax fraud.

Most of the corrections made in the conversion to national-accounts format (PAC) are made separately to the accounts of non-financial corporations and to those of unincorporated enterprises. However, it is sometimes necessary to use an allocation key, which will itself be taken from ESANE. All the corrections are then allocated to the enterprises' activity sub-sectors using the allocation keys taken from ESANE. After the conversion to national-accounts format, we therefore have the value added, at basic price, of non-financial corporations and unincorporated enterprises, classified by principal activity, before the final decisions on GDP.

ESANE brings together, within a homogeneous framework, the data of non-financial enterprises, which in most cases come from tax sources with varied content, completed by survey data. Enterprises filing tax returns under the Non-Commercial Profits (BNC) system or the Agricultural Profits (BA) system are part of ESANE. The entire non-financial activities scope is covered. Corporations and unincorporated enterprises that have a principal activity as financial auxiliaries are grouped in a specific intermediate system.

ESANE is complete. The enterprises that were absent from the original files were reintroduced individually, for the largest of them. The smallest ones gave rise to statistical-type corrections within ESANE itself. Nevertheless, enterprises whose principal activity is agriculture, forestry and fishing are excluded from this procedure. On the other hand, no adjustment has been made in ESANE for fraud or the underground economy: these adjustments are part of the conversion to national-accounts format (PAC) process.

In ESANE, enterprises are classified according to principal activity (often referred to as activity sub-sectors). When their accounting period is longer than 12 months, the accounts of the enterprises concerned are reduced to 12 months by a simple proportionality rule. However, no adjustment is made to bring into line with the calendar year the accounts of enterprises whose accounting period does not run from January to December.

As a rule, only activities carried out in France are covered by the accounting documents transferred to the tax authority, which serve as the basis for the preparation of ESANE. The territorial principle is therefore consistent with the concept of residence in the national accounts.

The accounting framework common to ESANE enterprises is the standard account, which includes a production account, a generation of income account and a distribution of income

account. The conversion of general accounting plan (PGC) transactions to ESANE transactions used in the standard account is presented in Chapter 11 on sources. ESANE also has sections devoted to enterprises' fixed assets and the breakdown of their turnover by detailed activities.

### B.1.1 Compensation of employees

To evaluate the compensation of employees paid by non-financial enterprises, the starting point in ESANE is the variable “Personnel costs”, which aggregates the sub-variables “Gross wages and salaries” and “Employer social contributions”. The two latter items correspond to “Wages and salaries” and “Social contributions” in the general accounting plan (PGC) (cf. Chapter 11). To make the conversion to national accounting, it is necessary to refer to this level of detail, which exists for all the categories of enterprises that are included in ESANE.

It should be noted that business accounting includes, in personnel costs, the compensation of the operator of unincorporated enterprises and the related social contributions. In national accounting, these items are not identified separately, and they are included in the mixed income of unincorporated enterprises. The corresponding correction is made, not when converting to national-accounts format, but in ESANE itself, based on complementary information provided in the tax sources. The two items are excluded from personnel costs and their counterpart therefore appears, for unincorporated enterprises, in the balance of the generation of income account, that is to say in the gross operating surplus of ESANE.

To explain the conversion to national-accounts format (PAC) carried out on the compensation of employees, we use the classification of the transactions in the French national accounts, which distinguishes between:

- wages and salaries in cash (D.111)
- wages and salaries in kind (D.112)
- employers' actual social contributions (D.121)
- employers' imputed social contributions (D.122)

The conversion from ESANE to national accounts of the compensation of employees of non-financial corporations is illustrated numerically in a summary table (Table 4.5). The corrections are referenced by a number between square brackets, which refers to the explanations below.

#### Wages and salaries in cash (D.111)

The “Wages and salaries in cash” transaction in ESANE encompasses most of the payments that make up the “Wages and salaries in cash” transaction in the national accounts. They are said to be gross because they include the social contributions payable by employees. This method of accounting is the general rule in the ESANE source files. However, an exception does exist for wages paid by enterprises subject to the non-commercial profits (BNC) regime: they are declared net in the tax return. A correction is therefore made at the ESANE stage to turn them into gross wages. Thus, ESANE wages and salaries are recorded homogeneously, as gross amounts. Another important correction is made at the ESANE stage to employee profit sharing: in business accounting it is recorded in the distribution account whereas in national accounting it is considered as compensation. The operating surplus produced by

business accounting is therefore, in the ESANE production process, reduced by the amounts paid to employees as profit sharing, and the amount of the compensation paid is raised symmetrically (treatment that has no impact on the estimation of value added).

A particularity that exists in the accounting of construction enterprises requires an accounting correction. They pay contributions into a special fund for paid leave and they record the whole of this payment in their social contributions. The part of this payment corresponding to the employees' share is evaluated and reinstated in wages and salaries in cash: the counterpart is therefore the subtraction of the same amount from social contributions.

A correction is made to deal with the wages of caretakers paid by property managers when the premises belong to non-financial corporations and unincorporated enterprises that rent them out. The managers simply re-invoice the compensation of caretakers to the owners, without including it in their own expenses. The treatment used in national accounting consists of considering caretakers as employees of the lessors, whereas the expenditure appears under the external charges in the accounts of the non-financial corporations and unincorporated enterprises concerned. The correction therefore consists of reducing (by €511m in 2010) the intermediate consumption of lessors of non-financial corporations and unincorporated enterprises (which increases their gross value added) and symmetrically increasing the compensations they pay.

Attendance fees paid to employees who are members of company boards of directors are not estimated. This has the effect of overstating GOS without affecting value added.

Tips give rise to appropriate recording in the hotel industry: they are included in both output and wages. The national accounts however make a supplementary estimation of tips in the hotel and other activities. The amount is added to the enterprises' output and the compensation of employees.

No other correction is made to compensation of employees to take account of the exhaustiveness of GDP. The only counterpart to the adjustments made for tax fraud and undeclared work is the gross operating surplus/mixed income. Even in the case of undeclared work, in the French accounts there is no correction for under-declaration of wages.

There is no information from a counterpart sector, namely households, that would be liable to modify the evaluation of compensation of employees obtained based on data from enterprises.

#### Wages and salaries in kind (D.112)

In the general case, in the accounting plan, there is no specific heading for benefits in kind. When they are purchased by the enterprise, they are however recorded as operating costs, but they cannot be isolated as such in ESANE. On the other hand, in sectors where benefits in kind are on a large scale, accounting adjustments are made so that they are included in wages and salaries. In the case where they correspond to services produced by the enterprise, in the form of housing for example, they are also included in the enterprise's operating revenue. There is therefore no need for a correction to take account of them.

Payments to canteens, charitable works and works councils are recorded as social contributions.

There are then three types of corrections made to ESANE to take account of wages in kind, when they are not already recorded as wages by enterprises.

- When the benefits in kind relate to products purchased by enterprises, they are estimated based on the four-yearly survey of labour costs, by applying rates drawn from this survey to the payroll of the sectors concerned. The counterpart is the adjustment of intermediate consumption in ESANE.

- There are also corrections to take account of benefits in kind relating to the employer enterprises' own products. This affects only certain sectors (transport, social housing). A correction is then made to the ESANE output to record the counterpart. The treatment is the same for free rents, which correspond to the rental value of the dwellings that the enterprise provides free to its employees. None of these corrections has any effect on the GOS of the enterprises concerned.

- Finally, the labour costs survey mentioned above provides figures on payments to canteens, charitable works and works councils, which are deducted from social contributions.

#### Employers' actual social contributions (D.121)

It is the “Employer social contributions” heading in ESANE that serves as the starting point for the evaluation of the “Employers’ social contributions” heading in the national accounts. Unlike wages and salaries, for this transaction there is information available from the counterpart sectors, which are the various organisations that receive the social contributions in question.

The method used is that generally used in synthetic transactions. It consists of setting up a transaction account, with as its resources the units/sectors for which the transaction is a use, and as its uses the units/sectors for which it is a resource. In general, resources and uses are not equal. To restore equality, the rules on the hierarchy of parties involved are applied.

Applied to actual social contributions, the method therefore consists of comparing the total amounts of social contributions received by the units that are part of social insurance and the rest of the world, and the amounts declared by employers. For this transaction, the difference is allocated to non-financial enterprises and divided between corporations and unincorporated enterprises. Of course the ESANE amount of social contributions will first have been corrected by the amounts that were integrated in wages and salaries, that is to say the paid leave payments of construction enterprises and the payments to canteens, charitable works and works councils (see above). Symmetrically, checks will have been made to ensure the social contributions received by the construction industry paid leave fund did not include any amounts reclassified as wages. Globally, employers and social bodies are supposed to follow the same rules when recording transactions.

Finally, the different in actual social contributions is analysed as a different in wages, resulting both from inaccuracies in the declarations made by enterprises and the adjustments made to absent enterprises' accounts or extrapolations made from incomplete accounts. The difference is therefore recorded under wages and salaries in cash. The total of personnel costs in ESANE is therefore not modified for this “fitting” operation.

#### Imputed social contributions (D.122)

Imputed social contributions represent the counterpart of social benefits paid directly by employers to their employees outside of any actual contributions circuit. In business accounting, these benefits are recorded under social contributions (item 6471: direct benefits). For the purposes of the national accounts, employers' direct benefits are evaluated: the equality of this evaluation and the amount of imputed contributions is postulated. The evaluations are made using ratios taken from the labour costs survey and applied only to non-financial corporations. The amount obtained is deducted from the social contributions in ESANE. It is useful to make a distinction between the case of public enterprises and that of other enterprises. The total of personnel costs in ESANE is not affected by this correction.

The calculation of imputed contributions also involves the demographic compensation payment made by the retirement benefit regimes of certain public enterprises to the public pension regimes. The amount appears in the accounts of the enterprises concerned under labour costs. The correction consists of deducting this amount from wages and salaries in cash.

### Synthesis of the compensation of employees of non-financial corporations

All in all, only a few corrections introduce a difference between, on the one hand, the ESANE personnel costs and, on the other, the compensation of employees in the national accounts. These corrections have the effect of increasing enterprises' value added:

- either by means of a reduction of intermediate consumption: purchased benefits in kind, demographic compensation;
- or by means of an increase in output: tips, benefits in kind on production.
- 

#### B.1.2 Gross operating surplus

The ESANE gross operating surplus is the item that naturally constitutes the starting point for the evaluation of the GOS of non-financial corporations. In practice, the conversion to national-accounts format concerns all enterprises' current accounts, and this simultaneously produces both the operating surplus and the disposable income – the latter being anchored in the ESANE item gross pre-tax operating profit (PBCAI).

Corrections of different types are made to the initial figure. They are grouped under three headings:

- corrections relating to the reclassification of transactions,
- corrections relating to the different conceptual treatment of certain flows between business accounting and national accounting,
- corrections relating to the taking into account of exhaustiveness.

All the corrections are listed in Table 4.6, with the figures for their impact.

### Reclassification of transactions

#### *Employee profit sharing*

The correction relating to employee profit sharing is explained in the section on compensation of employees (see above). Its counterpart concerns GOS. It is applied directly in ESANE.

### *Taxes on production (and imports)*

In the conversion to national-accounts format, the treatment of the taxes paid by enterprises on their products and the profits from their activities is not simple. In business accounting, these can actually appear under three possible items:

- in third-party accounts: this is the case for VAT;
- in the item “Taxes, levies and similar payments”;
- as a profit distribution transaction: this is the case of tax on profits.

The taxes paid by enterprises on their purchases and fixed assets are part of their acquisition value. When they relate to products of domestic origin, they have actually been paid by the suppliers – producers and retail traders – of the goods concerned. This therefore takes us back to the case above. Where imported goods are involved, the taxes do not appear as such in the accounts of any resident agent, but they are an integral part of the acquisition price of the goods purchased for resale or intermediate consumption. As, by construction, enterprises do not pay taxes on the imports of their own products, taxes on imports are excluded from the conversion to national-accounts format procedure described here.

We have indicated that the recording of taxes in ESANE is subject to a process of homogenisation which involves adding to “Taxes, levies and similar payments” all the taxes on production that are not VAT, when these taxes are initially recorded in third-party accounts. At the end of this process, only VAT is left recorded, implicitly, in third-party accounts. The ESANE measurement of output is consistent with this method of recording: it is at producer price – within the ESANE meaning, that is to say assimilating, before conversion to national-accounts format, taxes on production with the content of the “Taxes, levies and similar payments” item.

In the French national accounts, taxes paid by non-financial corporations are recorded in two transactions:

- taxes on production (and imports), which break down into two components:
  - taxes on products: D.21 (and more precisely D.11 and D.214: the case of taxes on imports is mentioned above and there are no taxes on exports)
  - other taxes on production: D.29
- current taxes on income, wealth, etc.: D.5

The conversion to national-accounts format of taxes therefore consists of carrying out three comparisons:

- the first relates to VAT: in fact, it does not concern this stage of the conversion of enterprises' accounts to national-accounts format. It is the subject of a global calculation of theoretical VAT, concerning goods and services accounts, and it gives rise to an exhaustiveness correction;
- the second relates to tax on profits: it places side by side the amount of this tax as it appears in ESANE and the amount recorded in the public accounts. The resolution of the difference arising from this comparison concerns the evaluation of the disposable income of enterprises:

it therefore has no effect on their value added or on GDP.

- The third comparison first of all concerns the two following items: the ESANE item “Taxes, levies and similar payments” on the one hand; the total amount of taxes levied on non-financial corporations by general government, excluding taxes on profits, as it appears in the public accounting sources, on the other hand.

To be precise, it is necessary to mention that the comparison concerns the taxes paid by all non-financial enterprises, the division between non-financial corporations and unincorporated enterprises being made at a later stage, using the allocation key taken from ESANE.

As transactions on taxes create a link between enterprises and general government, the evaluations coming from the latter are necessarily imposed on the accounts of the former, as far as both the total amount of the taxes and their classification is concerned.

First of all the comparison shows a higher amount on the general government side. This gap is interpreted as a difference in the intermediate consumption of enterprises: the assumption is made that the latter record as external charges payments made to units belonging to general government, treated as taxes in the national accounts. This is the case, for example, of payments made to consular bodies.

All other things being equal, the corresponding correction increases the value added at producer price of non-financial corporations, through taxes on production, without altering their GOS. In a second step, is excluded from the total thus corrected of “Taxes, levies and similar payments”, to convert it to the total of “Taxes on production (and imports)”, the amount that the detailed information included in the public accounts leads to be considered as taxes on income (D.5) within the meaning of the national accounts. The counterpart for this second correction concerns GOS.

All in all, compared to the version initially given by ESANE, the value added, at producer price, of non-financial corporations is substantially increased, under the dual effect of an increase in GOS and a reduction in taxes classified under D.2 compared to the amount that appeared in “Taxes, levies and similar payments”.

#### *Discrepancy on subsidies*

The discrepancy on subsidies reflects the difference observed between the respective amounts of the ESANE item relating to operating grants and total subsidies in the general government accounts. The gap, which is positive, is allocated to output. However, the correction remains globally neutral as regards value added, as it simply involves transferring, between ESANE and the accounts, other subsidies on production to GOS.

#### *Rent on land*

Business accounting uses a legal conception of rental. All rents paid, whether they relate to land or buildings or if they are the subject of a financial lease are recorded in other external charges, and they are therefore included in intermediate consumption in ESANE. In national accounting, rents on land and subsoil assets are treated as property income, and not as the remuneration of an output. Financial leasing gives rise to a specific treatment, which will be examined later.

For the conversion to national-accounts format, it is necessary to correct the ESANE data so

as to exclude intermediate consumption from rent on land. However, in the enterprise accounts included in the ESANE source files there is no item that enables them to be isolated. Their evaluation is therefore based on exogenous sources. In fact, rents include farm rents, public occupation occupancy charges and revenue from State administered property. The latter also includes the rents from the small number of subsoil assets exploited in France. The information therefore comes from the agricultural accounts and public accounts. It results in an increase in the GOS of non-financial corporations and unincorporated enterprises of €2.7bn.

#### *Miscellaneous current transfers*

A certain number of payments made by enterprises are recorded by them under other external charges, and are therefore included in intermediate consumption in ESANE, whereas in fact they correspond to transfers in national accounting. This applies in particular to payments made to non-profit organisations serving households (NPISH), financing of sponsoring operations and transfers to and from employer social insurance regimes.

The information enabling the required corrections to be made comes from the NPISH account, from estimates and public accounting data. The final correction results in an increase of NFCs' GOS of €2,166m.

It should be noted that fines and penalties paid by enterprises, which also constitute current transfers in national accounting, are recorded in their extraordinary charges. There is therefore no need to make corrections for them to GOS.

#### Conceptual differences

There are eight types of adjustments that are made because of conceptual differences. They concern:

- gross fixed capital formation concerning financial leases
- the costs of ownership transfer
- insurance transactions
- changes in inventories
- the adjustments made for FISIM and the compensation of collective investment scheme managers
- the wages of caretakers paid by property managers
- own-account production of software and databases
- own-account production of R&D.

#### *Gross fixed capital formation acquired from financial leasing*

The treatment of the financial leasing transactions used in the national accounts presents two complementary aspects. First of all, it involves recording the fixed assets that are covered by a financial lease in the assets of the unit that uses the assets for productive ends, and not in the assets of the unit that is legally the owner: this has the effect of displacing the corresponding gross fixed capital formation from the financial corporations sector to the other sectors. It then has the effect of transforming a rental transaction, which corresponds to the legal nature of financial leasing, into a financing transaction, which leads to imputing a loan from the lessor to the lessee at the time of concluding the contract.

As a result, the regular payments made by the lessees are analysed like amortisation

transactions on an ordinary loan. They are therefore, exclusive of taxes, broken down into two parts: one corresponds to the repayment of the principal of the imputed loan, while the other corresponds to the payment of interest, the amount of which is also imputed.

The effect on non-financial corporations' GOS is as follows. In business accounting, financial lease payments are recorded as other external charges and are therefore part of intermediate consumption in ESANE. When converting to national-accounts format, they are excluded from intermediate consumption, and the amount is reclassified, partly as a financial transaction, partly as the payment of interest. The GOS of non-financial corporations and unincorporated enterprises is therefore increased by the total amount of the lease payments, €17,007m (13,743 for amortisation of the principal, 3,264 for interest).

Financial leasing is the subject of questions in a specific survey of financial leasing operators, which provides a breakdown of financial leasing operations according to the type of lessee and the type of equipment.

#### *Costs of ownership transfer*

The acquisition of assets, whether fixed assets, land or non-produced intangible assets, includes, on top of the value of the assets themselves, a certain number of incidental costs called costs of ownership transfer. These are also known as related costs. These costs are part of the GFCF of the units purchasing the assets, even when the acquisition does not itself concern fixed assets. These costs have two components: professional services provided on the occasion of the capital formation transaction, and taxes. What we are interested in here is the services involved: it is estimated that a part of the acquisition costs is recorded by enterprises in other external charges, and therefore counted in intermediate consumption in ESANE. The adjustment made when converting to national-accounts format is therefore intended to exclude the amount concerned from intermediate consumption and move it to the capital account. It therefore has the effect of increasing the GOS of non-financial corporations and unincorporated enterprises by €1,632m.

#### *Insurance transactions*

Insurance premiums are flows with a composite economic content. In the case of non-life insurance, the premiums received by insurance corporations are supposed to cover both the insurance service provided by the companies and the payment of claims under the policies for which the premiums are paid. Furthermore, the particularities of the provision of the service, characterised by the fact that the premiums are received before the service is rendered and the claims paid, mean that the insurance companies, playing a role as financial intermediary, find themselves, even in the case of non-life insurance, in possession of large investments, which are the counterpart of the technical reserves constituted from the premiums. These investments, which are quite tightly regulated, generate flows of property income that the companies consider as an operational resource, of a nature to moderate the level of the premiums.

National accounting takes these particularities into consideration to define the measurement of non-life insurance services output. Output is calculated by the equation below:

Non-life insurance services output = Insurance premiums  
+ Premium supplements  
- Claims

In this equation, premium supplements constitute an imputed flow, equal to the property income received by the companies thanks to the investment of assets resulting from the constitution of technical reserves. The property income is first of all the subject of a payment,

imputed, to policyholders under the transaction “Property income attributable to insurance policy holders – D.44”, then a repayment by policyholders to the companies in the form of premium supplements.

The data allowing the compilation of insurance corporation accounts not only allow the non-life insurance service output to be calculated, but also the uses of those services to be determined, in particular their intermediate consumption by the different agents. The service's allocation key is constituted by the amount of the premiums paid by the different institutional sectors – and, where appropriate, by the sub-sectors – also known from the data coming from insurers. These data also make it possible to evaluate, for each institutional sector, the net premiums, the claims and the property income attributed to policyholders.

Non-financial enterprises, in accordance with the rules of business accounting, record non-life insurance premiums paid among other external charges. In ESANE, premiums are therefore part, for their full amount, of intermediate consumption. The information on which ESANE is based does not enable these premiums to be isolated. All the adjustment therefore comes from the data from insurance corporations.

Under the verified assumption that non-financial enterprises record insurance premiums (the amount and the period) symmetrically to insurance corporations, the adjustment made at the time of converting to national-accounts format is intended to substitute for the amount included in intermediate consumption in ESANE the amount of the consumption of services coming from insurers' data. As the exact amount of the premiums included in ESANE is unknown, the adjustment consists simply of deducting the amount of the claims and adding the amount of premium supplements, these amounts being taken from the insurance companies' accounts. The counterpart of the adjustment concerns GOS, which is increased for non-financial corporations by €10,205m.

There is no adjustment to GOS relating to non-life insurance claims. Depending on the case, in business accounting, claims paid are recorded in extraordinary income or are the subject of a transfer of charges with no effect on non-financial corporations' output.

#### *The evaluation of changes in inventories*

The adjustments relating to changes in inventories concern the difference in the methods of recording inventories, and more generally, assets used by business accounting and national accounting: in business accounting, inventories are recorded at their historic acquisition cost, whereas national accounting prefers the permanent market value or replacement cost. The latter method of valuation eliminates any holding gain when entries and withdrawals from inventories are calculated using the difference between ending inventory and beginning inventory.

The adjustment used here simply takes note of the difference between the value of the changes in inventories that results from the business accounts of enterprises and which is included in ESANE and the value of the changes in inventories taken from the goods and services accounts. This difference is often called “inventory appreciation”. The method of switching from one to the other is presented in the part on measuring GDP from the demand side. The counterpart of the adjustment relating to inventories held by non-financial corporations concerns their GOS. In 2010, this was reduced in the national accounts, compared to ESANE, by €11,395m across the entire scope of non-financial corporations and unincorporated enterprises.

#### *Adjustments made for imputed financial services*

Two adjustments are made under this heading: one relating to financial intermediation services indirectly measured (FISIM) and one relating to services rendered by collective

investment scheme managers.

The measurement of FISIM output is based on the breakdown of interest into a component corresponding to the payment and receipt of “pure” interest and a component corresponding to the remuneration of the services of financial intermediaries. The method of calculating FISIM produced and imported also involves dividing them between intermediate uses and final uses, and between the different consumers of the services. Applied to non-financial corporations, the breakdown of FISIM leads, compared to the ESANE data, to increasing the amounts of interest received and reducing the amounts of interest paid. The adjustments impact on intermediate consumption (increased by €21,316bn across the entire scope of non-financial corporations and unincorporated enterprises) and therefore GOS (reduced by the same amount).

The adjustment relating to services rendered by collective investment schemes (UCITS) is of the same nature. UCITS do not explicitly bill their services, but take their remuneration from the property income they pay to unitholders. As this remuneration is therefore not included in the ESANE intermediate consumption, the adjustment made in the transition to national-accounts format consists precisely of increasing their intermediate consumption by the amount that is deducted from “Interest and similar income” to obtain the property income received by non-financial corporations. The adjustment amounted to €1,948m in 2010 across the entire scope of non-financial corporations and unincorporated enterprises.

#### *Own-account production of software and databases*

Software produced by enterprises for their own use is rarely included in their fixed assets in their accounts. In base 2010, a general method of calculation enables the value of such software to be estimated and allocated to the sectors concerned.

The corresponding adjustment consists of imputing to non-financial corporations a software output for own final use. The counterpart affects GOS. The amount was €11,940m for non-financial corporations and unincorporated enterprises in 2010.

#### *Own-account production of R&D*

R&D produced by enterprises for their own use is not included in their fixed assets in their accounts. An R&D output for own final use is therefore imputed to non-financial corporations using R&D data. The counterpart affects GOS. The amount in 2010 for non-financial corporations and unincorporated enterprises was €21,424m.

#### Taking account of exhaustiveness

There are two adjustments for exhaustiveness of the national accounts which have an impact on the GOS of non-financial corporations.

The first takes place at the conversion to national-accounts format stage: it consists of increasing GOS as it results, via ESANE, from the aggregation of statistical data on non-financial corporations, to take account of fraud and tax evasion.

The method used to calculate these increases is presented in Chapter 7 on exhaustiveness. It is based on the use of data from tax audits carried out by the tax authorities. It leads to

adjustments of non-financial corporations' output and gross operating surplus; wages are not affected by this adjustment. There is no adjustment for the use of undeclared work for non-financial corporations.

The second adjustment relates to the difference between theoretical VAT and VAT paid – the VAT gap. To be precise, this is not done when converting to national-accounts format. The VAT gap is calculated when dealing with the goods and services accounts. It results from the confrontation between:

- the amount of the so-called theoretical VAT obtained by applying theoretical VAT rates to different uses of goods and services, and
- the amount of the VAT actually recorded in the State's national accounts.

The gap between the two amounts is analysed as the result of fraud. This fraud, however, is not specific to VAT: the gap obtained results mainly from the effect on output of the increases for fraud mentioned above, and its impact on the uses of that output as part of the supply and use balances of products.

The VAT gap is allocated in full to the output and valued added of non-financial corporations and unincorporated enterprises, based on the allocation keys themselves based on the rates of fraud by institutional sector and activity.

## B.2 Unincorporated enterprises

The scope of unincorporated enterprises covers unincorporated enterprises belonging to households. As for non-financial corporations, ESANE constitutes the starting point for the compilation of the national accounts relating to unincorporated enterprises. The coverage of the scope by ESANE is nevertheless insufficient in agricultural activities where the number of unincorporated enterprises is high and where, in addition, there is a product-based statistical observation system that is deemed exhaustive. This is why the value added of unincorporated enterprises that are active mainly in agriculture is not evaluated based on ESANE during the transition to national accounts. In practice, the data relating to farms that are not corporations that are included in ESANE are excluded from the conversion to national accounts. For similar reasons, the same is true for unincorporated enterprises whose main activity is in forestry and logging and fishing and aquaculture.

### *Particularities of the transition to national accounts for unincorporated enterprises*

The transition to national accounts for unincorporated enterprises follows the same principles as that for non-financial corporations. The format of the initial data is the same. The difference is in the content of the data. The basic information is less rich than for corporations and numerous variables are extrapolated. The population fluctuates more from year to year, and the weight of adjustments for absence is greater. Finally, it is on account of exhaustiveness that the data from ESANE are modified by the conversion to national-accounts format.

The conceptual adjustments are of the same nature as for non-financial corporations. The adjustment relating to compensation of employees is mainly due to the inclusion of tips. On mixed income, the amounts of the two biggest adjustments relate to FISIM and insurance.

Significant adjustments are made to mixed income to take account of exhaustiveness. The adjustments for fraud and tax evasion are based on the exploitation of data from tax audits. It

is a fact that the turnover fraud found by the tax authorities is relatively more frequent for small enterprises.

The adjustment for undeclared work merits some clarification. Adjustments are made in the French accounts to take account of the presumed existence of units of production that go totally unrecorded by the tax and social contributions authorities, and which are unknown to the statistical apparatus. There are, however, monographic studies that enable such concealed output to be estimated.

The inclusion of this adjustment in the national accounts takes place very simply. All the value added from undeclared work has as its counterpart a mixed income: no wages are evaluated for this type of activity, so each undeclared worker is treated as if he were self-employed. This point is discussed in more detail in Chapter 7 on exhaustiveness.

#### 4.1.C. The income approach for financial intermediaries

The production and generation of income accounts for financial intermediaries are deduced, in the national accounts, from the exploitation of their accounting data and in particular their income statements, by using a conversion table for the transition of the items in their accounting plan to the national accounting transactions.

The value added of financial intermediaries is obtained simply by taking the difference between their output, valued at the basic price, and their intermediate consumption by exploiting their accounting data. It is broken down into branches in proportion to those branches' output.

To present the value added of financial intermediaries in an income-based approach, it is not necessary to do so at branch level. It is enough to do it for the institutional sub-sectors: this presentation corresponds to the generation of income account for the sub-sector, according to national accounting.

#### C.1. Compensation of employees

The compensation of employees is also evaluated using the accounting data in the income statement. The accounting plan of credit institutions present charges by type, that is to say that personnel costs are identified in the income statement.

At the most detailed level, personnel costs break down into: - wages and salaries: the amounts are allocated to the transaction “Gross wages and salaries” in the national accounts classification; - social charges: these are treated as social contributions, actual or imputed. Normally, within the social charges, it is possible to isolate those that correspond to contributions paid to social insurance organisations and direct benefits. The latter are the subject of an imputed social contributions circuit.

There is no adjustment to compensation of employees to take account of benefits in kind that are not already recorded under personnel costs.

#### C.2. Other taxes/subsidies on production

All the taxes paid by financial intermediaries, apart from income tax, are recorded under the income statement item entitled “Taxes and levies”: this item corresponds partly to taxes classified as taxes on products in national accounting.

Taxes on products are identified by comparison with the data from the public accounts. The

balance is classified under other taxes on production (D.29): the breakdown of this item into the different components in the classification is done at a later stage in the general synthesis of accounts.

### C.3. Gross operating surplus

Gross operating surplus is calculated by residual, by the difference between the value added and the items in the generation of income account above. It is therefore dependent on the conventions relating to the measurement of output. Unlike what is done for non-financial enterprises, the operating surplus is therefore not the subject of a “conversion to national-accounts format” from an accounting item identifiable as profit.

#### 4.1.D The income approach for insurance corporations

The production and generation of income accounts for insurance corporations are deduced, in the national accounts, from the exploitation of their accounting data. They are compiled directly at sub-sector level.

The value added of insurance corporations is obtained by taking the difference between the output thus calculated and valued at the basic price, and their intermediate consumption calculated by exploiting their accounting data. It is broken down into branches in proportion to those branches' output.

To present the value added of insurance corporations in an income-based approach, it is not necessary to do so at sector level. It is enough to do it for the institutional sub-sectors: this presentation corresponds to the generation of income account for the sub-sector, according to national accounting.

### D.1. Compensation of employees

The accounting plan of insurance corporations records charges by purpose, and not by type. The information enabling the compensation of employees to be evaluated is therefore not directly available in the income statement. The statements provided by the ACPR (prudential supervisory and resolution authority) include, for each type of insurance, an annex with a table showing personnel costs. This is also the case for COFACE.

The data provided by the social insurance organisations include information on personnel costs. These figures are included, without any adjustment, in the national accounts. In particular there is no adjustment to compensation of employees to take account of benefits in kind that are not already recorded under personnel costs.

The breakdown of the total thus calculated of the compensation of employees between the national accounting transactions – gross wages and salaries (D.11), actual social contributions (D.121) and imputed social contributions (D.122) – is carried out using, in the structure, the data from the INSEE's Labour Costs Survey relating to the insurance business.

### D.2. Other taxes/subsidies on production

Concerning taxes, they are of two types: a certain number of taxes specific to the insurance business, which are classified as taxes on products (see Chapter 3); taxes on wages and taxes which, like professional tax, are classified as taxes on production. The subsidies received by insurance corporations are analysed like other subsidies on production.

### D.3. Gross operating surplus

Gross operating surplus is calculated by residual, by the difference between the value added and the items in the generation of income account above. It is therefore dependent on the conventions relating to the measurement of output. Unlike what is done for non-financial enterprises, the operating surplus is therefore not the subject of a “conversion to national-accounts format” from an accounting item identifiable as profit.

#### 4.1.E The income approach for financial auxiliaries

The production and generation of income accounts for financial auxiliaries are deduced, in the national accounts, from the exploitation of their accounting data, and in particular their income statement. The accounts of financial auxiliaries follow the general accounting plan. Financial auxiliaries have only one activity. The generation of income account that is presented here groups together, as the production account in Chapter 3 does, the financial auxiliaries operating in the form of corporations – which constitute the institutional sub-sector of the same name – and the unincorporated enterprises exercising this activity, which are classified in the households sector.

### E.1. Compensation of employees

The compensation of employees is evaluated in the same way as for non-financial enterprises. It consists of taking the "Personnel costs" item from the standard account in the intermediate system of financial auxiliaries. To this are added the compensation of the operator and employee profit sharing.

The personnel costs break down into: - wages and salaries: the amounts are allocated to the transaction “Gross wages and salaries” in the national accounts classification; - social charges: these are treated as social contributions. There is no calculation of imputed contributions. All the social charges are treated as actual social contributions. There is no adjustment to compensation of employees to take account of benefits in kind that are not already recorded under personnel costs.

### E.2. Other taxes/subsidies on production

All the taxes paid by financial auxiliaries, apart from income tax, are recorded under the income statement item entitled “Taxes and levies”: taken directly from the income statement. This item is assimilated with other taxes on production (D.29). There are no other subsidies on production.

### E.3. Gross operating surplus

Gross operating surplus is calculated by residual, by the difference between the value added and the items in the generation of income account above. Unlike what is done for non-financial enterprises, the operating surplus is not the subject of a “conversion to national-accounts format” from an accounting item identifiable as profit.

#### 4.1.F. The income approach for agricultural enterprises

The evaluation of the contribution to GDP of agriculture – farming, hunting and related activities – is based on the value added evaluated according to a “classical” production approach.

In the presentation of value added according to the income approach, the standpoint adopted is that of the institutional units and their grouping into sectors. In the chapter on the production approach, it appears that two institutional units contribute to the value added of agriculture: non-financial corporations and unincorporated enterprises on the one hand, and households excluding unincorporated enterprises, on the other.

In the same chapter, starting from agricultural income and the agricultural sector, the production account of agricultural enterprises was presented, namely the non-financial corporations and unincorporated enterprises that operate in agriculture. Starting from the contribution of all non-financial corporations and unincorporated enterprises to the branch's value added, the calculation consists of subtracting the contribution of non-agricultural enterprises to the agricultural branch and adding the contribution of the non-agricultural activities of agricultural enterprises. The balance of these transfers is small.

This section is intended to present the generation of income account of these enterprises, indicating the sources of information that are specific to them, in particular in relation to the general sources drawn from ESANE. The generation of income account relating to the agricultural activities of households excluding unincorporated enterprises is presented in the section on households.

#### F.1. Compensation of employees

The compensation of employees for agricultural enterprises is calculated by differentiating the enterprises active in the sector.

For farms, gross salaries are estimated by valuing the salaried annual work units using unit wages taken from the agricultural accounts information network (see Chapter 3). Salaried annual work units are measures of the volume of work: their estimation is based on agricultural census data and surveys on farm structure. The social contributions payable by agricultural employers are estimated by applying contribution rates taken from the agricultural social protection scheme (MSA), to the payroll calculated above.

For the other enterprises, accounting data or the wages declared to the MSA are used.

#### F.2. Other taxes on production

The taxes paid by agricultural enterprises classified under other taxes on production are: land taxes, taxes on motor vehicles, agricultural development turnover tax (called ANDA, ADAR or CASDAR at different times), and the under-declaration of VAT on purchases of agricultural units. The amounts to be recorded in the generation of income accountants are obtained by applying a specific procedure to data from tax authorities.

#### F.3. Other subsidies on production

Other subsidies on production concern grants under policies impacting production factors or intended to influence certain aspects of the production process. There are also grants for interest relief. The full range of subsidies to agriculture is the subject of very detailed work.

#### F.4. Gross operating surplus/gross mixed income

Gross operating surplus/gross mixed income is the balance of value added and the transactions described above. The breakdown between gross operating surplus and gross mixed income is necessary so that the respective generation of income accounts of corporations and unincorporated enterprises in this activity can be integrated into the accounts of the institutional sectors. In fact, once the generation of income accounts for all agricultural enterprises are settled:

- the value added components are subtracted from all the components included in ESANE for agricultural corporations (after conversion to national-accounts format);
- the balance constitutes the generation of income account of unincorporated agricultural enterprises.

#### 4.1G The income approach for forestry and logging enterprises

The evaluation of the contribution to GDP of forestry and logging is based on the value added evaluated according to a “classical” production approach.

In the presentation of value added according to the income approach, the standpoint adopted is that of the institutional units and their grouping into sectors. In the Chapter 3 on the production approach, it appears that three institutional units contribute to the value added of forestry: non-financial corporations and unincorporated enterprises, households excluding unincorporated enterprises and general government.

In the same chapter, starting from agricultural income and the forestry branch, the production account of forestry enterprises was presented, namely the non-financial corporations and unincorporated enterprises that operate in forestry. Starting from the contribution of all non-financial corporations and unincorporated enterprises to the sector, the calculation of the value added of forestry non-financial corporations and unincorporated enterprises consists of adding the contributions of the non-forestry activities of forestry enterprises and subtracting the contributions of non-forestry enterprises to the branch. The balance of these transfers is small. This section is intended to present the generation of income account of these enterprises, indicating the sources of information that are specific to these enterprises, in particular in relation to the general sources drawn from ESANE. The generation of income accounts relating to the forestry activities of households excluding unincorporated enterprises and general government are presented in the sections devoted to each of them respectively.

#### G.1. Compensation of employees

The compensation of employees for forestry enterprises is evaluated based on data from the agricultural social protection scheme (MSA) and the national forestry commission (ONF). A specific calculation is applied to overseas departments (DOM).

#### G.2. Other taxes/subsidies on production

Other subsidies on production concern grants under policies impacting production factors or intended to influence certain aspects of the production process. They are subject to special treatment.

### G.3. Gross operating surplus/gross mixed income

Gross operating surplus/gross mixed income is the balance of value added and the transactions described above. The breakdown between gross operating surplus and gross mixed income is necessary so that the respective generation of income accounts of corporations and unincorporated enterprises in this activity can be integrated into the accounts of the institutional sectors. In fact, once the generation of income accounts for all agricultural enterprises are settled:

- the value added components are subtracted from the components included in ESANE for forestry corporations (after conversion to national-accounts format);
- the balance constitutes the generation of income account of unincorporated forestry enterprises.

#### 4.1.H The income approach for fishing and aquaculture enterprises

The evaluation of the contribution to GDP of fishing and aquaculture is based on the value added evaluated according to a “classical” production approach.

In the presentation of value added according to the income approach, the standpoint adopted is that of the institutional units and their grouping into sectors. In the chapter devoted to the production approach, it appears that few non-specialist enterprises contribute to this branch. In fact, apart from value added itself, all the components of the value added are derived from ESANE. In particular, the breakdown between gross operating surplus and mixed income is taken from ESANE.

#### 4.1.I The income approach for the letting of dwellings

In the presentation of value added according to the income approach, the standpoint adopted is that of the institutional units and their grouping into sectors. The production and generation of income accounts for the real estate rental activity are drawn up at sector level, relatively autonomously in relation to the accounts of the institutional units they depend on.

The dwellings letting activity is engaged in by all categories of institutional units. The reconciliation necessary between the respective points of view of the industries and institutional sectors therefore supposes that the activity's value added – as well as its counterparts – is entirely allocated to the different sectors. The method includes two logical stages:

- identify, within the institutional sectors for which production and generation of income accounts drawn up autonomously are available, a dwelling letting activity; establish for that activity a production and generation of income account that is compatible with the accounts of the sectors;
- add up the dwelling letting production and generation of income accounts of the different sectors, and subtract the total obtained from the production and generation of income account of the entire branch: the production and generation of income account thus obtained residually is allocated to the households sector.

Two remarks are necessary:

1. The large amount of other taxes on production, mainly borne by owner households, corresponds to a tax received by local government on land ownership. It is received whether the rent is actual or imputed.

2. The major part of the balance of the generation of income account constitutes an operating surplus, most of which – almost €160bn – goes to households excluding unincorporated enterprises, which itself corresponds mainly to an imputed income. Insofar as this income does not correspond to any work contributed by the owners, it is of course an operating surplus.

#### 4.1.J. The income approach for households

Households appear here as producers generating primary income, and not as beneficiaries of primary income.

An activity-based approach is used. For households, in fact, the production and generation of income accounts are deduced from the corresponding branches in which they are engaged in a productive activity. Unlike other sectors, there is no direct source that tells us households' income. A description of households' activities is given in the chapter on the production approach.

A few remarks:

- for all the activities where households produce goods for their own final consumption, there is no salaried employment: the value added gives rise entirely to a mixed income, since it results partly from work;
- the same applies to construction, which leads to own-account formation of fixed capital;
- for domestic services and social work activities, where output for own final use results from the employment of salaried personnel, the gross operating surplus is nil by construction;

The operating balance of real estate rental is entirely a gross operating surplus. Output supposes the employment of labour – the owners of dwellings are therefore only assumed to employ capital. Nevertheless, when in the context of housing households employ salaried personnel, it is considered as a domestic services activity and not a component of the value added of the rental activity.

#### 4.1.K. The income approach for non-profit institutions serving households (NPISH)

To present the generation of income account of NPISH (S.15), it is useful to distinguish three groups: 1. Private educational institutions. 2. Social work institutions. 3. The other entities in the sector.

##### K.1. Private educational institutions.

Non-profit private educational institutions have been classified as NPISH since base 2000. All the information concerning them comes from public sources and is of the same nature and the same level of detail as the information used to calculate the value added of public education. It therefore enables a figure to be put on the compensation of employees and the current expenditure included in intermediate consumption (and other taxes/other subsidies on production).

The GFCF, however, is estimated. It is obtained by applying to the compensation paid by private educational institutions the ratio of GFCF to compensation estimated for public education (sources public accounting). The consumption of fixed capital is deduced using the perpetual inventory method (PIM).

##### K.2. Social work institutions.

All social work institutions whose activity concerns the care of disabled people (children or adults), the assistance of people in need (children or adults), as well as educational and preventive social work are classified as NPISH. Indeed, in spite of the great diversity of institutions concerned, it is legitimate to classify them uniformly in the NPISH sector, as they are generally run by voluntary bodies. Although their main resources come from public funding, it is not possible to conclude that they are controlled by government. Public funds generally enable these establishments to balance their books, but it is not possible for all that to consider that they constitute the remuneration of a service provided.

On the other hand, other social work activities are classified wholesale as coming under general government (childcare in structures such as crèches for example) or as non-financial corporations (old people's homes – except in the case of units attached to hospitals, in which case they are more likely to be classified under general government) whereas a certain number of structures operating in these areas are voluntary bodies. But these units are difficult to pick out in the administrative sources (such as ACOSS (central agency for social security organisations) sources which provide wages declared) as they are in survey sources used to identify exhaustively the activity of all the units operating in the social work field (it is difficult in these surveys to distinguish between voluntary bodies (associations) and establishments controlled directly by local authorities). A choice has therefore been made to classify these activities “all together” by institutional sector based on the analysis of the revenue and costs to establish whether they are market or non-market units.

These establishments have three types of resources:

- public funding, the largest source by far,
- revenue from sales, in the case of sheltered employment centres for the disabled,
- contributions from the people concerned, from their own resources or social benefits.

The evaluation of the output and value added of these establishments requires prior detailed identification of the activities they are engaged in. For the most part, these establishments provide accommodation services. The estimation then consists of calculating an average cost per place, which is multiplied by the number of places actually occupied. The average cost of the place depends on a certain number of criteria related to the type of accommodation. When other services – training for example – are also provided, the cost of providing them is added on. The information on costs comes from an annual survey on the funding of social establishments and services that fall within the competence of the State, conducted by the supervisory authority. The extrapolation to all the places existing is done thanks to the national directory of health and social establishments (FINESS), which lists and classifies the units involved in social work activities.

The breakdown of the total amount of the costs between its different components relevant to the national accounts (compensation of employees, current expenditure) uses cost structures taken from the accounting data. Consumption of fixed capital is measured by the depreciation charges taken from the establishments' accounts.

Sheltered employment centres provide accounting-type information, in particular for their activities selling the products they manufacture. It should be noted that the income support paid by the State to top up the compensation of the disabled people working in these centres is treated as a social benefit. Its classification as a subsidy on payroll would not have altered the value added of these units.

For a few smaller scale activities, such as childcare services for children in social hardship, output is measured by the amount of the public funding. This amount is broken down into components using a pre-determined structure. Complete figures have only been worked out for one or several reference years. Most of the time, the accounts obtained in this way are extrapolated in the current year by means of indicators, notably taken from public funding figures.

### K.3. The other entities in the NPISH sector

The compilation of production and generation of income accounts for this group follows a very simple procedure. As indicated in the section on the production approach, the accounts of NPISH are the result of statistical work including a stage involving the centralising of individual data, and a stage involving the extrapolation of budget structures. In the current year, the items in the accounts for the base year are extrapolated using indicators deemed to be relevant: funds received from general government are generally used.

As the units are non-market producers – although with a secondary market output – their total output is measured by production measured as the sum of the costs. All the elements enabling the construction of the generation of income accounts are therefore available to evaluate output.

#### K.3.1. Compensation of employees

The compensation of employees is evaluated based on items relating to personnel costs identified in the basic data, and largely extrapolated. It is the total compensation of employees figure that is calculated. It is then broken down using allocation keys into its components in the classification of transactions in the national accounts.

### K.3.2. Other taxes/subsidies on production

The amount of other taxes (D.29) on production paid by NPISH comes from the basic data. It is not confronted with the data from general government.

### K.3.3. Gross operating surplus

Gross operating surplus is nil by convention. The GFCF of these entities is calculated as a fraction (variable according to the branches of activity) of the compensation paid by these entities. FCF (and therefore GOS) are deduced by applying the PIM.

## 4.1. Borderline cases

- 1) Describe the borderline cases between wages and salaries and intermediate consumption. Do wages and salaries in kind exclude expenditure that benefits the employer because it is necessary for their production process, such as: business travel expenses and clothing used mainly at work?

The previous sections (in particular those on non-financial corporations and unincorporated enterprises and general government) detail how these borderline cases are dealt with.

- 2) Describe the borderline between gross operating surplus or mixed income and intermediate consumption. Are intangible fixed assets treated as GFCF and not as intermediate consumption in the estimation of gross operating surplus / mixed income?

The previous sections detail how these cases are dealt with. When the accounting plan does not require the recording of these intangible assets as fixed assets, an adjustment is applied (own-account production of software and databases and of R&D).

- 3) For borderline cases concerning taxes on production and imports and subsidies reference to the description in the sections 4.8 and 4.9 may be made.

## 4.2. Valuation

- 1) Describe how compliance with ESA 2010 valuation rules is ensured. E.g. description of instructions on valuation in survey questionnaires and possible adjustments made. References may be made to more detailed descriptions in sections 4.7-4.12.

As indicated in the previous sections, the accounting standards are as a general rule consistent with the provisions of ESA 2010 concerning the valuation of flows.

- 2) Are wages and salaries in kind valued at basic prices (if produced by the employer) or purchase prices (if purchased by the employer)? Is the amount paid by the employee deducted if the goods and services are provided by the employer at reduced prices?
- 3) Describe the steps taken to ensure that the accrual principle is followed in the valuation of components of the income approach to GDP. Address the following issues:

- a) Is compensation of employees recorded during the period in which the work is done except for ad-hoc bonus payments, which are recorded when they are due to be paid? Compensation is, under the applicable accounting standards, recorded during the period when the work is done. As a general rule, bonuses owing for a year N but which are actually paid at the beginning of year N+1, are recorded with year N.
- b) Describe the adjustments made to bring recording of taxes on production and import and subsidies to an accruals basis.  
The necessary adjustments are made to public accounting data to ensure recording in line with the accrual principle (cf. EDP (permanent demographic sample) inventory).

#### **4.3. Transition from private accounting and administrative concepts to ESA 2010 national accounts concepts**

- 1) Provide a comparative description of the concepts used in private and public accounting with national accounts concepts. References may be made to other parts of the Inventory.
- 2) Provide a detailed description of the measures taken to ensure a satisfactory transition from private accounting and from government accounting to ESA 2010 concepts (alternatively a brief description may be made here with references to other parts of the Inventory). Address the treatment of the following issues:
  - a) Durable goods of small value;
  - b) Major repairs and renovations;
  - c) Valuation of inventories;
  - d) Software and entertainment, literary and artistic originals;
  - e) Research and development;
  - f) Insurance service charge;
  - g) Production and allocation of FISIM;
  - h) Leasing;
  - i) The treatment of provisioning between private/public accounting and national accounts; especially in reference to decommissioning of large capital assets.

Cf. Chapter 3 and beginning of Chapter 4.

- 3) Provide a summary table showing the size of the various conceptual adjustments made to the components of GDP according to income approach. This information should be consistent with the Process Table.  
Cf. tables in section 3.4 illustrating the coherence of the conceptual adjustments made to the production and income approaches.

#### **4.4. The roles of direct and indirect estimation methods and of benchmarks and extrapolations**

- 1) Direct estimation methods are methods based on sources that give a direct value for the variable to be estimated. Indirect estimation methods are used in the absence of such a direct value and may comprise models, use of ratios, etc.
- 2) Provide a summary table indicating, for each component, the estimation method used (e.g. survey-based, administrative data, models - CFC, benchmark extrapolations, other). This information should be consistent with the Process Tables.
- 3) For items for which the most current year estimates are based on models the following aspects should be addressed:
  - a) Is the model calculated annually or for a recent year (i.e. not older than 5 years)?
  - b) Does the model provide a representative picture of the component to which it is applied?
  - c) Are any assumptions underlying the model regularly reviewed?
- 4) For items for which the most current year estimates are based on extrapolations from a benchmark year the following aspects should be addressed:
  - a) Outline the extrapolation method.
  - b) What is the benchmark year used?
  - c) In how far are the indicators used in extrapolations representative of the activities to which they are applied?
  - d) Are any assumptions underlying extrapolations reviewed regularly?

#### **4.5. The main approaches taken with respect to exhaustiveness**

- 1) List the main methods used in the income approach to ensure exhaustiveness. References may be made to more detailed descriptions in Sections 4.7-4.12 and in Chapter 7.
- 2) Provide a summary table showing the size of the various exhaustiveness adjustments in the breakdown of income components and types of non-exhaustiveness (N1-N7). This information should be consistent with the Process Tables and Chapter 7.

#### 4.6. **Compensation of employees**

- 1) Provide tables with the components of compensation of employees (wages and salaries in cash, wages and salaries in kind, employers' actual and imputed social contributions (by type of contribution if possible)), by NACE sections and/or institutional sector (S11-S15).
- 2) Describe the methods for each of these components separately. Describe estimation methods for industries if they are different from the general method used. For illustration, information on the compilation of employment figures is also welcome.
- 3) Provide information on the measures taken to ensure that all employees are covered by the estimates of compensation of employees. Address the following aspects:
  - a) Transactions from resident employers to resident and non-resident employees; Business accounting data, as well as the data relating to compensation declared to the social contributions bodies, cover all the employees declared by resident enterprises, whether the employees are themselves resident or not.
  - b) Adjustments made for those not covered by administrative sources due to thresholds, for example where income falls below a threshold for the payment of income tax; Not applicable given French social and tax regulations.
  - c) Specific adjustments made for tax evasion.  
The adjustments made for undeclared working – based on methods of the tax audit type – take account of the compensation linked to these cases of fraud. But a decision was taken to consider these undeclared employees as unincorporated enterprises selling their services to the fraudulent enterprise, so that the adjustments concern mixed income and not compensation of employees. This choice has no impact on the estimation of gross value added.

##### 4.6.1. **Wages and Salaries**

- 1) Provide information on the measures taken to ensure that estimates of wages and salaries in cash (ESA 2010 §4.03) and in kind (ESA 2010 §4.05) are comprehensive and that items listed in ESA 2010 §4.07 are excluded.
- 2) Provide information on the measures taken to ensure a complete coverage of items known to be under-recorded in declarations of income, such as tips and gratuities. Cf. previous sections.

##### 4.6.2. **Employers' social contributions**

- 1) Provide information on the measures taken to ensure that estimates of employer's social contributions are comprehensive and correctly divided into pension and non-pension contributions (ESA 2010 §4.09 and §4.10). In particular, describe the methodology used to calculate employers' imputed pension and non-pension contributions and any differences across institutional sectors.  
The data from employers' accounts cover all the compensation, wages and salaries and social contributions.  
In the case of social contributions paid to general government, it is the public accounts that provide both the total amount of contributions due and the division between retirement pension contributions and contributions to cover other risks.

#### 4.7. Taxes on production and imports

- 1) Show the most important types of taxes on production and imports (including figures for the reference year).

Taxes on products and production (D.21) are detailed in Chapter 3. The table below therefore only details other taxes on production (D.29).

ESA 2010 Code	Name	Amount (in millions of Euros)
<b>D.29</b>	<b>Total</b>	<b>81,961</b>
Incl.	Tax on built-up land	25,268
	Payroll tax (TS)	11,440
	Transport levy (VT)	6,344
	Additional social solidarity levy (C3S)	5,090
	Company real estate contribution (CFE)	4,941
	National housing support fund levy (FNAL)	2,465
	Autonomous solidarity contribution (CSA)	1,917
	Levies for the wage guarantee scheme (AGS)	1,759
	Flat-rate tax on network corporations	1,223
	Chamber of commerce levy	1,103
	Tax on company cars	992
	Tax on unbuilt land	735
	Apprenticeship development contribution	700
	Minimum professional tax levy	665
	Social levy ('forfait social')	657
	Tax on commercial premises	604

- 2) Provide a description of the classification rules applied to taxes on production and imports, particularly in borderline cases between a tax and a purchase of a service. These borderline cases should be listed and explained in more detail (for taxes on products reference may be made to the description in Chapter 3).  
The main borderline cases identified concern the roadsweeping tax and the refuse collection tax (TEOM), which are treated as payment of services produced by local authorities, and the audiovisual licence fee, considered as a market receipt for the public radio and television companies.
- 3) Describe adjustments made to take account of tax amounts unlikely to be collected, where appropriate (reference may be made to the description in Chapter 3).

Cf. Chapter 3 for taxes on products and imports.

Concerning other taxes on production (D.29), the most important taxes are recorded on the basis of tax returns submitted by taxpayers. The difference between these amounts and the actual cash receipts is recorded in D.995 (ultimately, it is therefore the amount of the cash receipts that is used to estimate GDP). This treatment concerns the company real estate contribution (CFE) in particular, the levy for chambers of commerce, the tax on built-up land, the tax on unbuilt land.

For the other taxes, cash receipts are recorded directly in D.29.

## 4.2. Subsidies

- 1) Show the most important types of subsidies, including figures for the reference year.

Subsidies on products and production (D.31) are detailed in Chapter 3. The table below therefore only details other subsidies on production (D.39).

ESA 2010 Code	Name	Amount (in millions of Euros)
<b>D.39</b>	<b>Total</b>	<b>29.7</b>
Incl.	Subsidies paid to agricultural enterprises	8.6
	Subsidies paid by local authorities (in particular to transport operators)	7.1
	Subsidies paid by the ASP (Services and Payment Agency) (subsidized job contracts)	5.4
	Refundable tax credit on interest due on loans taken out to purchase a main residence	1.5
	Refundable tax credit on the expenditure of households as producers of domestic services	1.2
	Refundable tax credit on granted to banks to compensate for their zero rate lending (PTZ)	1.0

- 2) Provide a description of the classification rules applied to subsidies, particularly in borderline cases between a subsidy and items listed in ESA 2010 §4.38? These borderline cases should be listed and explained in more detail (for subsidies on products reference may be made to the description in Chapter 3).

In certain cases a subsidy-type expense is recorded as a general government consumption expenditure as its purpose is more social than one of reducing the price of the product or service for all users. This is why the returnable tax credit for childcare expenses is recorded under D.63.

- 3) If car scrap schemes exist(ed), describe the functioning of the scheme and the treatment in national accounts. Demonstrate how the recommendations of the GNI Committee on the Treatment of Car Scrap Schemes (GNIC/232) are followed.
- 4) Cf. Chapter 3.

## 4.3. Gross operating surplus

- 1) If this aggregate is calculated as a residual, this section can be brief.
- 2) If independent estimates are made, the descriptions are best organised by institutional sector. Describe how you ensure that the estimates of gross operating surplus are comprehensive. In particular address the following issues:

- a) The coverage of all units by registers or administrative sources, including the market activities of government and NPISH together with the rental income (through renting and owner occupation) of households.
  - b) Treatment of any interest or rent paid on financial or tangible non-produced assets borrowed or rented and interest and rent received on assets owned.
  - c) Adjustments for timing and differences from national accounts concepts made to administrative based sources. In particular, if business accounting sources are used, the exclusion of holding gains/losses and changes in provisions for the purpose of national accounts.
  - d) Specific adjustments made for tax evasion.
- 3) Describe how the conceptual adjustments to the production approach are reflected in the estimation of gross operating surplus.

All these aspects are dealt with in the previous sections.

#### **4.4. Mixed income**

- 1) If this aggregate is calculated as a residual, this section can be brief.
  - 2) If independent estimates are made, special emphasis should be given to exhaustiveness issues (fiscal fraud, informal economy, VAT fraud, etc.) Describe how you ensure that the estimates of mixed income are comprehensive. In particular address the following issues:
    - a) Coverage of all units by registers or administrative sources, including all unincorporated enterprises owned by households.
    - b) Treatment of any interest and rent paid on assets owned by others or interest and rent received on assets owned.
    - c) Adjustments for timing and differences from national accounts concepts made to administrative based sources.
    - d) Specific adjustments made for tax evasion.
    - e) The treatment of illegal activities
- 3) Describe how the conceptual adjustments to the production approach are reflected in the calculation of mixed income.

All these aspects are dealt with in the previous sections.

#### 4.5. Consumption of fixed capital

- 1) This category is most important for non-market producers. If consumption of fixed capital (CFC) is calculated for all producers, a complete description may be provided, including the explanation on how the CFC of non-market producers is identified in the system.

The GFCF of general government is derived from its accounting data. It is then broken down by product and class of assets (cf. Chapter 5). The perpetual inventory method (PIM) is then applied to the GFCF series by type of assets.

- 2) Describe the main aspects of the PIM model. Address the following issues:
  - a) Coverage of fixed assets: are all fixed assets (except cultivated assets) including intellectual property products covered?
  - b) Are the conceptual changes in ESA 2010 relating to research and development, weapon systems in government, small tools, land improvements and government, public and private sector classification taken into account for the calculation of CFC in the PIM?

Yes, all fixed assets are covered by the PIM method, including cultivated assets.

Yes, all these changes are taken into account for the calculation of GFCF by type of assets and institutional sector. They are therefore taken into account for the calculation of CFC, which is estimated directly from the GFCF series using the PIM method.

- c) Is the model carried out at a suitable level of detail to ensure that assumptions made about service lives are appropriate to the asset to which they are applied?

Yes.

- d) Information on the service life by assets.

The average lifetimes used are 5 years for computer hardware and software, 10 years for R&D, 7 to 15 years for transport equipment, 10 years for communication equipment, 20 years for weapons systems, 9 to 21 years for other machinery and equipment, from 25 to 30 years for non-residential buildings, 60 years for civil engineering structures and 70 years for dwellings.

- e) Information on the depreciation functions used (straight line, geometric, combination of both, other).

The perpetual inventory method allows the calculation of coherent series of fixed capital and consumption of fixed capital from long series of gross fixed capital formation at constant prices subject to two hypotheses: the first concerns assets mortality functions, assumed to be log-normal, and the second assumes that straight-line depreciation is applied. The main parameter of log-normal distribution is the average life of the assets.

- f) Treatment of reclassifications of existing assets into (or out of) the non-market sectors.

3) Describe how the recommendations of the GNP Committee on the Consumption of Fixed Capital on Roads, Bridges etc. (see GNIC 011) concerning CFC are applied. Address the following aspects:

a) Has a proper distinction between market and non-market been made in the PIM or in the direct measurement of stocks of fixed assets and CFC?

Yes.

b) Has the NSI reviewed whether all GFCF in public infrastructure has been properly allocated to activities and asset categories?

Yes.

c) Is government GFCF in construction split into residential buildings, non-residential buildings and public infrastructure?

Yes.

d) Are roads separated from other infrastructure?

We make a distinction between “non-residential buildings” and “other structures”. However, roads are not isolated within “other structures”.

e) Do railways, sewage systems and any other single public infrastructure category exceed 15% of the gross capital stock? If yes, are these categories separately identified?

No, these categories, which are not identified, each represent less than 15% of gross capital stock.

f) Has the consistency of the GFCF time series been ensured also for the early years or with the initial capital stock estimates in the PIM? In particular, have market/non-market reclassifications been adequately taken into account?

No, the GFCF time series necessary to implement the PIM method are so long (over 150 years for certain assets with a very long service life) that it is not realistic to claim to be able to analyse the market/non-market reclassifications in any detail.

g) Does the PIM distinguish between the main components of infrastructure assets (earthwork, foundations, bridges, tunnels, surface layers for roads) in order to use separate lifetimes for these components? If not, are the used lifetimes in the range of 50 to 60 years? If not, is the used lifetime outside the above range supported by evidence?

No, we do not distinguish between these different subcategories of assets. The average service life used is 60 years for all the other civil engineering structures.

h) Have the lifetime assumptions been investigated in the last 10 years? When have they been investigated the last time? Did this investigation also include an analysis of the composition of GFCF in public infrastructure to take account of shifts between new construction, complete reconstruction and major maintenance and repair?

The lifetimes result from a study carried out in 1996 (except for the categories that were not included in fixed assets in ESA 1995 and whose lifetimes have been evaluated recently: R&D, weapons systems).

- i) Is the retirement function used to calculate CFC clearly described? Has a bell-shaped function been used (e.g. log-normal, gamma, logistic, Weibull, Winfrey or approximations to normal distribution)?

Lifetime is modelled using a log-normal function.

- j) Has the simultaneous exit assumption been used? If yes, is this justified by a sufficiently stable GFCF time profile for the retiring and the new vintages to ensure that there are no significant impacts on CFC?

No, this assumption has not been used.

- 4) Outline how the recommendations of the Task Force on the Capitalisation of R&D in National Accounts (DMES 2012/11/08) and of the GNP Committee on Entertainment, Literary and Artistic Originals (GNIC/010 and GNIC/022) concerning CFC are applied. Detailed description of the measures taken to address all recommendations on R&D and originals should be provided in the section 5.10 of the Inventory.

These recommendations are implemented fully.

In particular, concerning R&D, the subcontracting of R&D by an R&D producing unit is recorded in intermediate consumption, and an average lifetime of 10 years is used (however, depreciation is based on a log-normal mortality function as for other assets, instead of being geometrical). Furthermore, the mark-up used is nil, as the calculations carried out on R&D producing market units did not reveal a positive net operating surplus (even calculated with a moving average over several years).

## CHAPTER 5 THE EXPENDITURE APPROACH

(This chapter should be around 50-100 pages in length. If dominant approach may be more)

### 5.0 GDP according to the expenditure approach

- 1) Provide a table describing the breakdown of GDP (in the reference year) according to the expenditure approach by component. It should be consistent with the information provided in the Process Tables.

GDP	2,000,384
Imports	559,177
<b>Total supplies</b>	<b>2,559,561</b>
Final consumption	1,601,200
Of which households	1,085,394
Of which general government	476,183
Of which NPISH	39,623
GFCF	441,067
Of which non-financial enterprises	233,995
Of which households	107,102
Of which financial enterprises	13,060
Of which general government	82,936
Of which NPISH	3,974
Acquisition less disposals of valuables	681
Change in inventories	-3,856
Exports	520,469
<b>Total uses</b>	<b>2,559,561</b>

### 5.1. The reference framework

- 1) List the main sources used for each expenditure component and describe in more detail the most important ones (reference may be made to chapter 10 on the main data sources used).

#### A. The general attributes of the expenditure approach

The autonomy of the expenditure approach to GDP raises a general question. A completely autonomous approach would suppose that it is based exclusively on information from the recipients of goods and services. This is an objective that is unachievable for national accounts, in particular concerning the evaluation of household consumption. It is in fact widely acknowledged that surveys carried out with households on their spending elude a large part of their consumption, whatever other useful contributions this source of information may provide.

#### *Autonomy of the expenditure approach*

It is with these remarks in mind that it is possible to make an assessment of the autonomy of the expenditure approach in the French national accounts. This requires a review of the main components of demand.

Foreign trade in goods and services, whose evaluation comes almost exclusively from administrative data and the balance of payments, may be considered as an autonomous component of demand. In fact, they are considered as exogenous data, which will not be challenged by the balancing constraints.

The introduction of the Intrastat collection system to measure intra-Community trade has certainly brought the quality of this information to a level closer to that of the ordinary

surveys of the transactions between enterprises, without it being possible, however, to measure the resulting uncertainty on the measurement of trade. Nevertheless, until now this has not led to any change in the exogenous and intangible nature of the foreign trade data concerned.

The demand from enterprises is evaluated based on their own declarations, as they are gathered in the form of accounting data in ESANE. This is why the evaluations of enterprises' tangible fixed assets play a leading role in the procedure for estimating the fixed capital formation, of which they constitute the largest part. This also applies to changes in inventories. Concerning the intermediate demand of enterprises, it is sufficient to note that as their output and value added are decisive in estimating GDP, the same applies implicitly to their intermediate consumption, overall at least.

It is on household final consumption expenditure that the autonomous sources are the least called upon. Surveys of households on their current expenditure are, it is true, used to arrive at the figure for the base years, but they are used mainly in the background, their estimates rarely being used in the final analysis. On the other hand, household consumption is the subject of a considerable amount of work using various sources to evaluate, before balancing adjustments, each of the items, at least as they are evolving. The sales of retail outlets supposed to target households play a decisive role in validating spontaneous estimates, across the scope of consumption that they cover. Housing surveys carried out with households constitute a decisive tool for evaluating expenditure relating to the dwelling.

In contrast, all the information on demand that comes from the “exhaustive” sectors that are general government and financial corporations are all autonomous components in the expenditure approach to GDP.

Generally speaking, the method consisting of compiling the goods and services accounts in a general input-output-based approach, and more particularly within the context of product balances (supply and use balances), is likely to reduce the weaknesses that could arise as a result of insufficient autonomy of the expenditure approach.

This method, coupled with the adjustment method which gives pre-eminence to the value added approach to GDP, also makes it possible to guarantee that the overall measurement of final demand complies with the national accounting rules, from the point of view of definitions, method of valuation and time of recording, since great care is taken to ensure the measurements of output and value added meet those rules, as was detailed in Chapters 3 and 4. However, it should be emphasised that the concern to adhere to the rules also applies to the work on the detailed evaluations, even when the elementary sources follow different rules: from this point of view the supply and use balances are a tool that provides a decisive contribution.

#### *Exhaustiveness of the expenditure approach*

The question of the exhaustiveness of GDP measurement arises naturally for the expenditure approach as it does for the other approaches. It is not possible to say, however, that there is in the French accounts an explicit strategy specific to the expenditure approach aimed at achieving an exhaustive measurement.

Among the sources specific to the expenditure approach, only household surveys are liable to

be the subject of exhaustiveness adjustments, which could just as well concern the population used to extrapolate the results as the sincerity of the declarations made by households on their expenditure.

Household surveys – family budget surveys, housing surveys – are surveys that use the dwelling as their sampling frame. The extrapolation of data relating to households uses the population census as a reference. No corrections are undertaken to cover a potential population of people who are not present in any dwelling or who are missing from the census. As far as households' declarations on their spending in their responses to the surveys is concerned, it is necessary, first of all, to remember the well-known phenomenon of underestimating expenditure on sensitive consumer goods. On more ordinary spending, it is sometimes claimed that the declarations made by households on their consumption of certain products are of a nature to reveal underestimation by producers. This perspective is not used in the French accounts, whose approach to the issue of exhaustiveness takes other routes, which consist of directly correcting the declarations of the producers themselves.

The issue of the exhaustiveness of the expenditure approach loses some of its relevance in itself once we notice that they undergo an exhaustiveness test as part of that validation procedure – the independent evaluations of the components of demand being included in a system of product balances where producers' declarations are corrected to render them exhaustive.

It is finally possible to arrive at a picture which, given the qualities of reliability and exhaustiveness attributed to each of them, presents the different components of final demand with regard to the adjustment procedures leading to a single measurement of GDP. They range from those that normally are not subject to any adjustments to those that most absorb the counterparts of the adjustments:

- the elements of final demand that come from the State and general government;
- foreign trade, with services sometimes being adjusted;
- the elements of final demand that come from financial corporations;
- the capital formation of non-financial enterprises which is the subject of a pre-adjustment stage between the evaluations carried out from a product-based point of view and from a purchaser-based point of view respectively;
- household final consumption expenditure.

## **B. The demand evaluation framework: product balances**

Final demand is evaluated using methods that allow figures to be reached for the components, either by breaking them down by product, or more generally by aggregating estimates made for the detailed products. It therefore fits in with a set of tools that bring together all the supplies and all the uses of the products: these are the supply and use balances. Supply and use balances are tools that can be used to validate, even evaluate, the expenditure approach. Hence the interest of presenting them.

Product supply and use balances correspond to lines in the input-output tables (IOT). In theory, they are instruments that relate to products, not activities. A supply and use balance records the origin and destination of products that are circulating in the economy. They are constructed in such a way as to also account for the different stages involved in the valuation of products, that is to say:

- the supplies are measured at the basic price, or at a price deemed to be equivalent for

imports (price before any taxes);  
- the uses are measured at acquisition price.

Set out in columns, a supply and use balance, in its reference structure, is presented as follows:

Output, at basic price

+ CIF imports

+ Distribution margins, at the basic price

+ Taxes, net of subsidies, on products

=

Total supplies / Total uses

at acquisition price

Intermediate consumption of the branches

+ Final consumption expenditure and valuables

+ Gross fixed capital formation

+ Change in inventories

+ FOB exports

In terms of final consumption, the notion of expenditure is preferred, in the supply and use balances, to the notion of actual consumption. It does seem to be closer to the statistical sources. It is possible to distinguish between three categories of final consumption expenditure: households, general government, NPISH.

Distribution margins are divided into trade margins and transport margins.

The structure above is obviously adapted to the cases of different products. The basic structure refers back to supply and use balances relating to goods, which may, depending on the level of detail with which they are compiled, possibly include all the types of uses.

Supply and use balances relating to market services are generally simpler: there are no distribution margins, generally no changes in inventories and rarely any fixed capital formation. Supply and use balances concerning non-market services are simpler still, since there is no foreign trade; in addition, general government final consumption expenditure is predominant.

Supply and use balances for services with margins (trade, transport) have a particular form: they record the total of the margins relating to all the products in negative. The pseudo supply and use balance for the CIF/FOB adjustment takes a similar form.

### **1. Level 118 product balances**

Level 118 in the national accounts classification is the level at which the synthesis of the goods and services accounts and the sector accounts is carried out. It is a level of detail in the classification that is specific to national accounts, and does not have a direct correspondence with any of the classes or groups in the NAF, the French version of the NACE.

The level 118 supply and use balances integrate exactly into the IOTs, which distinguishes them from the supply and use balances at a more detailed level (see below). They are comprehensive, that is to say they include all the transactions provided for goods and services without any item serving as an instrumental reconciliation item by balance. They are consistent with the IOTs and therefore with the accounts of the institutional sectors.

The total output of the products in the supply and use balances is equal to the output of the branches, taking into account the treatment of the distribution margins. Remember that the unit of production in the IOT is the unit of homogeneous production, and that the branches, which group together the units of production are therefore pure branches. As a result, the IOTs do not include a “make matrix” linking the output of the sectors to the production of products or, which amounts to the same thing, the matrix is diagonal. On the other hand, there is a matrix of the transfers of production from the sectors to the products. With the exception of transfers then, the output of each level 118 sector is equal to the production of the product directly associated with it.

There are matrices that link the output of the institutional sectors to the output of the sectors. For non-financial enterprises – non-financial corporations and unincorporated enterprises – the output matrix is more detailed: it articulates the output of the sub-sectors of activity of enterprises, which are themselves classified according to the classification into 118 activities, with the output of the branches. These matrices, however, are not included in the IOTs themselves.

The total intermediate consumption of all the products is equal to the total intermediate consumption of all the branches. From an instrumental point of view, a supply and use balance contains only the total intermediate consumption of the product, not its breakdown into branches. An agent in charge of balancing a product does not usually manage the distribution of the intermediate consumption of his product by the branches, as this is often exogenous to him. There are exceptions to this rule.

Like the classification of the branches, which separates out the non-market branches, the classification of the supply and use balances sets supply and use balances for non-market products apart. Level 118 supply and use balances also include the following details:

- the gross fixed capital formation of a product is broken down by acquiring institutional sector;
- the final consumption expenditure is broken down by institutional sector concerned;
- the changes in inventories separate out the categories of inventory: producer inventory, user inventory and trade inventory.
- taxes and subsidies on products, including VAT, are consistent with the institutional sectors concerned (general government, rest of the world).

## **2. Level 700 product balances**

Level 700 is the most detailed level in the NAF. The 118 levels are therefore necessarily groupings of the 700 levels. The level 700 supply and use balances are working supply and use balances. They are articulated with the level 118 supply and use balances, which does not mean that a level 118 supply and use balance is a simple aggregation of level 700 supply and use balances. It simply implies that the differences that appear when switching from one to the other can be completely explained.

The level 700 supply and use balances can themselves be divided up into supply and use balances of a more detailed level. This is rarely the case for complete supply and use balances. On the other hand, a level 700 item – generally household consumption – can be calculated by aggregation of estimates made at a more detailed level. When very detailed supply and use balances include output and foreign trade, it is however rare in those cases for the level 700 output to be obtained by simple aggregation of the more detailed outputs: the

sources may differ, and the adjustments made at level 700 may not be passed on to more detailed levels.

The level 700 balances are product balances. Nevertheless, their classification corresponds, except for a few exceptions, to activities. It so happens that at its most detailed level, the NAF generally includes an item-to-item correspondence with the CPF (French product classification), so that talking about activities or products at this level generally amounts to the same thing. The detailed declarations of output made by enterprises, which are surveyed on the breakdown of their turnover by NAF activities, can therefore be aligned without too much difficulty with the foreign trade data, which are collected according to pure product classifications.

Only the 26 agricultural supply and use balances really follow a classification that goes beyond the NAF activities. This is also because the output data they contain also refer to products.

The level 700 supply and use balances necessarily include at least output and foreign trade. They truly constitute the tool that allows the output of the branches and the production of products to be determined.

The output relevant at level 700 is output not held in stock. For the market branches, it is obtained as the sum of the output not held in stock of the following groups:

- non-financial corporations and unincorporated enterprises
- financial enterprises, including financial auxiliaries
- insurance enterprises
- market branches of general government
- households excluding unincorporated enterprises

For each of them, it is planned to distinguish market output and output for own final use.

The output not held in stock of non-financial enterprises is obtained at the end of a clearly explained process, which is presented in the chapter on the production approach. Market output is divided into 4 stages:

1. The starting point consists of the output sold – or sales – of non-financial corporations and unincorporated enterprises, broken down by activities/products at NAF level 700, which is the level of detail of the statistical source itself. These sales are included in ESANE, and they are in all the counterparts of the adjustments for absence.
2. They are corrected for inclusion in the adjustments for tax fraud. The calculations are done at a more aggregated level, and passed on to level 700.
3. Two types of adjustments are then made (see the production approach): these are conceptual adjustments – double-counting and unsold deliveries.
4. For certain activities, adjustments for undeclared work are then added, and the corresponding output attributed to unincorporated enterprises.

The evaluation of the component corresponding to output for own use is simpler when taken from ESANE, it is broken down into predetermined activities and does not undergo any adjustment.

For the other types of producers, output not held in stock is obtained simply by breaking down into activities/products an output calculated directly from statistical sources.

For the non-market sectors, the procedure is also very simple.

The transition from the branches' output not held in stock to the output of products not held in stock includes the transfer transactions, which are a zero sum in the supply and use balances. The non-market branches are also concerned, through incidental sales. The import/exports that are included in the level 700 supply and use balances are simply aggregated at level 118. Taxes/subsidies on products are divided up between level 700 items. Finally, trade margins are calculated at level 700.

### **3. The differences between ERE 700 and ERE 118**

All the headings that feature in the level 118 supply and use balances (ERE) are not taken from the level 700 supply and use balances: this is why the latter are working levels.

The most important difference resides in the treatment of VAT. VAT is introduced in the final synthesis phase, at level 118. The ERE 700s are exclusive of any VAT. There is also an intermediate version of the levels level 118s which are also exclusive of VAT.

VAT is introduced at level 118 by applying theoretical rates to amounts of uses of goods and services. This leads to important consequences. First of all, the uses of goods and services are then truly at acquisition prices, whereas until then they were only at acquisition prices exclusive of VAT. This does not really have any instrumental consequences in the engineering of the accounts. Indeed, when there is an adjustment, with the introduction of VAT into the supply and use balances, between the value of a variable estimated in the supply and use balance and the value of before same variable obtained from exogenous data, this adjustment then takes place exclusive of VAT, “detaxing” the exogenous value when necessary. The introduction of the VAT simply consists “retaxing” the value of the variable, possibly modified.

The second consequence sometimes adversely affects the legibility and comprehension of the accounts. Indeed, the introduction of the VAT leads to a modification of the production due to the appearance of the “VAT gap” between the theoretical VAT obtained by applying the rate to uses and the VAT owed to the tax authorities. The gap is reduced by incorporating it into output: see Chapter 7. After treatment of the VAT gap, level 118 output is no longer obtained by aggregating the level 700 outputs, because it is not deemed useful to pass on the VAT gap to level 700.

Changes in inventories are not generally introduced at level 700:

- the absence of so-called “producer” changes in inventories does not affect the balancing conditions of the supply and use balances, since these changes occur in both uses and supplies;
- on the other hand, the introduction of “user” and “trade” changes in inventories is necessarily done by taking them from another use: in general, this is intermediate consumption, with the result that the intermediate consumption arising from the level 700s must be interpreted as potential intermediate consumption.

Other differences should be noted:

- the gross fixed capital formation is only broken down into acquiring institutional sectors at level 118: most of the time, this breakdown has nevertheless implicitly been taken into account in the earlier adjustments;

- the same applies to the introduction, at level 118, of the exogenous intermediate consumption;
- on the contrary, it should be noted that certain information, which appears in the working supply and use balances and which could have contributed to the balancing of the supply and use balances, disappears at the level where the synthesis is made: this is case of the intermediate consumption corresponding to subcontracting.

### **C. The sources used to evaluate household final consumption expenditure**

Household final consumption expenditure is evaluated at a detailed level of the product classification. Numerous sources are used to determine the levels of the different products in household final consumption expenditure (INSEE sources, administrative sources or external sources).

#### **INSEE sources**

The system of annually surveying enterprises, which constitutes one of the two sources of data on enterprises (the other being administrative data, combining enterprises' tax returns and the annual declarations of social data (DADS)), includes a substantial section devoted to retail enterprises. The **ESANE (Annual Business Statistics)** system is the main source used to balance the supply and use balances, and even though it does not provide estimates of household consumption product by product, it does provide the turnover of commercial enterprises. In addition to the accounting data common to all enterprises, the questionnaire specific to retailers includes questions on the breakdown of their turnover to a detailed level of products in a classification that is different to the one used in the supply and use balances. Assessments are therefore made of final consumption based on the sales of the retail trade. The **annual business surveys** provide information on the breakdown of the sales of services by type of customer (“enterprises and competitive public sector”, “general and local government” or “individual customers”). This breakdown of sales makes it possible to divide all the supplies (retrieved from the supply and use balances) between household uses, assimilated with individual customers, and those of the other institutional sectors, and therefore to estimate the household consumption expenditure.

After expert examination and confrontation of the different sources available to establish household final consumption expenditure, the level of expenditure established in base 2005 has sometimes been taken as the benchmark level.

For current year estimates, other INSEE sources have also been used: they do not provide levels, but they allow the determination of indicators of changes in value, volume or price. “CA3” **turnover indices** are monthly indices of gross turnover exclusive of VAT, broken down into the levels of NAF rev.2. They are calculated using VAT forms known as CA3s provided to the tax office and completed by enterprises liable for VAT.

**Detailed industrial production indices (IPI)**, broken down according to the NAF rev.2 levels, are calculated using data collected in branch surveys. Monthly industrial production indices reflect, depending on the product tracked, quantities, deflated turnover or volumes of hours worked.

**Annual production surveys** provide invoices, exclusive of tax, collected from enterprises in the industrial sector according to the French production survey classification (Prodfrac). These surveys, combined with data from the Directorate General of Customs on imports and exports make it possible to try and reconstitute a supply and use balance, whilst supposing that the

household consumption, intermediate consumption and business investments components evolve in unison.

The price indices used for household consumption in the national accounts are mostly based on the consumer price index (CPI). For the items concerned, the price index used corresponds to a specific grouping of items and varieties from the CPI.

**Producer price indices (PPI)** measure changes in the transaction prices, exclusive of VAT and other taxes, of goods (for the industrial PPI) or services (for the PPI in services) produced by enterprises' activities and sold on the French market. They are therefore evaluated according to the basic price concept (exclusive of VAT, exclusive of taxes on products, subsidies on products not deducted) and are broken down according to the levels of the NAF rev.2. These indices are used for products for which there is no consumer price index available.

### **Administrative sources**

Administrative sources concern data from general government bodies.

**Satellite accounts or analyses** present economic data for a specific area in connection with the overall economic analysis of the central framework of the national accounts. These accounts often cover areas where government involvement is high and produce aggregates that therefore enable household consumption expenditure and the individualisable expenditure of general government to be evaluated. The main satellite accounts or analyses used are the health account for health goods and services expenditure and the housing account for actual or imputed rent expenditure.

In addition to the satellite accounts themselves, **different ministry departments** have contributed to the compilation of the levels of the household consumption series. Thus, the tax authority (the Directorate General for Public Finances, DGFIP) makes available the detailed expenditure of general government, which, for the expenditure recorded as social benefits in kind, is deducted from actual household expenditure. The DGFIP also has data on households' partial payments, that is to say households' financial participation in the funding of a non-market service (university registration fees, for example for non-market education services). The Finance Acts also allow certain levels of household expenditure to be established, such as for example certain social work activity expenditure, such as that connected to crèches and old people's homes.

Furthermore, due to its role as a regulator, the State possesses public oversight bodies that supervise certain activities. These have information that helps to establish the level of household consumption expenditure: the electronic communications and postal regulation authority (ARCEP) for telecommunications services, the prudential supervisory and resolution authority (ACPR) for insurance services, the online gambling regulator (ARJEL) for internet gambling, etc. Similarly, Banque de France data can be used to establish consumption of financial services.

### **External sources**

Household consumption can also be assessed using data from **panels of consumers or distributors**. **Professional organisations** also help to compile the annual household consumption series. Among them, the French automobile manufacturers' association (CCFA) provides detailed data on the number new and used vehicle registrations, which are then

valued using car unit prices (catalogue prices for new cars and price after application of a discount for used cars). Likewise, the French council for petroleum (CPDP) provides figures on the quantity of petroleum products consumed (lead-free petrol, diesel, domestic fuel oil, etc.), which is valued by multiplying by the average price of each type of product.

## **5.2. The borderline cases**

### **5.2.1. The borderline cases for HFCE**

1) Provide information on how the inclusion of the following borderline cases in HFCE is ensured:

a) dwelling services produced by owner-occupiers;

Consumption of dwelling services produced by owner-occupiers is equal to the output of dwelling services by owner-occupiers. This aggregate is valued by the housing satellite account based mainly on a housing survey carried out with households every 5 to 7 years. The method of calculating the dwelling service output of owner-occupiers (imputed rents) is described in the chapter on the production approach (cf. 3.18).

a) income in kind, such as:

i. goods and services received as income in kind by employees;

Income in kind is the counterpart of benefits in kind: it is made up of goods and services provided free of charge, or at a price lower than their acquisition price, by employers as part of the compensation of employees. It may concern goods and services produced by the employer's enterprise, or which are purchased by that enterprise. These goods and services are considered as always originating from market output. Examples are the free provision of energy products to staff, meals provided to restaurant staff, etc.

If the goods or the service are provided free, the value of the benefit in kind corresponds to the acquisition price if the product is purchased by the employer, to the basic price if it is produced by the latter. If the goods or service are provided at a reduced price, only the part financed by the employer is part of the benefits in kind. In this case, it is the employee that incurs the rest of the expenditure and the entire value of the goods or service consumed is included in household final consumption expenditure.

In practice, a distinction is made between two types of benefit: professional and non-professional benefits in kind.

Professional benefits in kind correspond to unsold output. Output, wages and consumption are therefore increased by the amount corresponding to these benefits. This concerns three products: dwelling services (through free rents when the owner is not a household), accommodation and food services. Household consumption expenditure corresponds to the output of dwelling services for people housed free of charge when the owner is not a household (enterprises or general government). This output is evaluated by the housing satellite account based mainly on a housing survey carried out with households every 5 to 7 years. (cf. 3.18). For accommodation and food services (HI55Z and HI456Z), the value relating to these benefits in kind is evaluated using rates applied to wages in the sector concerned. It is added simultaneously to output and wages. In base 2010, the counterpart for this output and these wages should have been added to household consumption expenditure, but this was not done. This amounts to an underestimation of household consumption

expenditure, in 2010, of €103m for accommodation and €315m for food services. However, as the adjustment to wages was not made and as the income approach is favoured in the French national accounts, this did not have any consequences for GDP value and its evolution.

Non-professional benefits in kind correspond to a purchase and then the supply of a product by an enterprise free or charge or at a reduced price. The wages paid to households are therefore increased as is household consumption expenditure. The intermediate consumption of enterprises is, for its part, reduced by the amount of the non-professional benefits in kind (€1.3bn in 2010). This is estimated by applying sector-specific rates to the wages paid to households. The sources used for household consumption generally take numerous benefits in kind into account in household final consumption expenditure. Thus, the evaluation of the consumption of energy products is based on sources that provide figures for the quantity of products supplied to households whether or not in the form of a benefit in kind (electricity transmission networks for electricity, statistics department of the Ministry of Sustainable Development for gas, CPDP for petroleum and the French council for butane-propane (CFBP) for petroleum products).

- ii. goods or services produced as outputs of unincorporated enterprises owned by households that are retained for consumption by members of the household (e.g. food and other agricultural goods, household services produced by employing staff);

Self-consumption is the counterpart of households' output intended for their own final consumption.

In theory, all types of goods can be self-consumed. Self-consumption is only recorded if it is on a significant enough scale compared to the total supply of goods concerned. Household final consumption expenditure includes self-consumption only for agricultural and food products. The self-consumption value of goods is determined by the sector-product manager for the supply and use balances.

On the services side, self-consumption concerns two items:

- services produced by owners occupying their own dwellings (imputed rents, cf. 3.18);
- domestic services produced by employing paid staff. This includes the services of domestic staff, building caretakers and certain social work activities (such as childminding). The services resulting from unpaid domestic activity are not part of household final consumption (nor of the output scope).

Household final consumption expenditure on domestic services excluding building caretakers corresponds to the output of domestic services itself (cf. 3.26) and of certain social work services (cf. 3.23), minus the individualisable expenditure of general government and, in accordance with ESA 2010, the tax credit for employing domestic staff, where applicable.

Household final consumption expenditure on building caretakers corresponds to the so-called recoverable part of the output of building caretakers, or to the part payable by the occupant of the dwelling when it is not vacant. The output, equivalent to the wages paid to building caretakers including employee and employer social contributions, is estimated based on the payroll data and social and employer contributions of building caretakers paid to the joint social

protection group Humanis (for the private housing stock) and the annual balance sheet of social housing providers (for the part relating to the public housing stock). In the provisional and semi-final accounts, as the balance sheet of the social contributions bodies is not available, the evolution of building caretaker expenditure for social housing tenants according to the housing satellite account is used.

c) items not treated as intermediate consumption, such as:

i. materials for small repairs to and interior decoration of dwellings of a kind carried out by tenants as well as owners;

The value of materials used for small repairs to and interior decoration of dwellings carried out by tenants and owners is determined using the structural enterprise data (ESANE). The household consumption expenditure results are based on the amount of expenditure obtained from retail sales (cf. 5.7.2 on tradable consumption) once the intermediate consumption of households as the owners of the dwellings has been deducted for the dwelling services output (cf. 3.18).

ii. materials for repairs and maintenance to consumer durables;

Household consumption expenditure includes the materials used for repairs and maintenance to consumer durables (including vehicles). It is estimated based on retail sales (cf. 5.7.2 on tradable consumption).

d) the value of any goods purchased under hire-purchase agreements;

Households have the possibility of purchasing goods under hire-purchase (“leasing”) agreements (cars mainly). This method of acquisition involves several concepts:

- a contract value which corresponds to tax inclusive value of the product sold;
- a instalment-type payment corresponding to the sum the purchaser must pay as a reimbursement (normally monthly or quarterly). This payment includes both the reimbursement of the principal, the amount of the interest and the VAT.

Unlike a “classical” purchase, the VAT on a hire-purchase agreement is payable gradually with the instalments and not in full when the goods are made available. The value added tax, proportional to the hire-purchase payment, is recorded in FISIM whilst the tax exclusive amount relating to the purchase of the goods is taken into account in the household consumption expenditure for the goods in question.

National accounting records as consumption expenditure the entire value except for the value added tax, of cars purchased under leasing agreements, under the product “cars purchased by leasing”.

e) purchases and sales of second-hand goods included in the estimates (see ESA 2010 §§3.180-3.183;

The recording in consumption expenditure of acquisitions of second-hand (or existing) goods is done in different ways depending on the type of agents involved in the transaction.

When second-hand goods are sold between households with no intermediary, no consumption expenditure is recorded: the value of the goods excluding any margins is indeed a negative consumption expenditure for the seller, which exactly compensates for the positive expenditure. If, however, second hand goods are sold between households through an intermediary, the final consumption expenditure, taken overall, includes only the commercial margin made on the sale.

When a household purchases a second-hand item from an enterprise (or when the second-hand item is imported), the total purchase value is recorded as household consumption expenditure.

Finally, when a household sells a second-hand item to an enterprise, the sale is recorded as a negative household consumption expenditure.

Thus, sales and purchases of cars, furniture, audio and video equipment and household appliances are recorded in household consumption expenditure according to the principle described.

The estimation of second-hand vehicle sales and purchases rests on the number of registrations according to type of seller (household or enterprise) and the average unit value of second-hand cars (data provided by the French automobile manufacturers' association (CCFA)). When the sale is made thanks to an intermediary, only the intermediary's margin (estimated at 15% of the values of households' acquisitions) is recorded as a household consumption expenditure. In the case of a purchase from an enterprise, the value of the purchases is reduced by the value of the sales of vehicles by households to enterprises. The balance is then integrated into household consumption expenditure. Household consumption expenditure on second-hand vehicles is then confronted with retailers' sales in order to validate the estimation obtained (cf. 5.7.2 on tradable consumption).

Sales of furniture and audio and video equipment are estimated from retail sales (cf. 5.7.2 on tradable consumption).

For the other products, it is considered that households' purchases are made without the intervention of intermediaries or in the case of sales with intermediaries that the intermediaries' margins are marginal compared to the total consumption expenditure on the product.

f) FISIM used for final consumption purposes by households;

The consumption of financial intermediation services indirectly measured (FISIM) is evaluated as part of the supply and use balance of FISIM (GK64S).

The household consumption expenditure includes on the one hand, financial intermediation services not liable for VAT, that is to say the margins of financial intermediaries on demand deposits and the loans granted to them, and on the other hand, the value added tax on leasing for new private cars purchased by households. The financial leasing services concerned are services making new cars available to households without any capital investment on their part. National accounting records as consumption expenditure the entire value of the car purchased under a financial leasing agreement under the product "cars purchased by leasing"; as for the leasing instalments, they consist on the one hand the reimbursement of the principal and the interest, treated as a financial operation, and on the other hand, an amount of VAT proportional to the instalment. It is the latter that is conventionally recorded as consumption of product GK64S.

The method of calculating the financial intermediation services not liable for VAT is described in the chapter on the production approach (cf. 3.17). The value added tax on new vehicle financial leasing is determined using the VAT rate for purchases of new cars by households, which is applied to the instalments paid by households during year N. To calculate the latter, the instalments paid by all the economic players (data provided by the Banque de France) are first of all broken down according to the financial leasing survey (real estate and equipment leasing, and leasing with an option to buy). The portion attributable to households is worked out on a pro rata basis over the acquisitions of the last five years for equipment leasing and leasing with an option to buy among the different economic players (provided by the association of finance companies (ASF)).

g) insurance services by the amount of the implicit service charge;

The household consumption expenditure corresponds to the premiums and taxes paid by policyholders, the premium supplements (interest received by insurers on premiums invested) from which the claims paid by insurance companies and changes in reserves are deducted.

The consumption of insurance services is valued as part of the supply and use balance of insurance services). The household final consumption expenditure corresponds to a part of the uses, decided by applying the allocation key to final consumption and intermediate consumption. The method is described in the chapter on the production approach (cf. 3.17).

h) Expenditure relating to repair costs (goods and services) following a claim are recorded as household consumption expenditure whether the repairs are paid for by households or the insurers directly. In the first case (costs paid by households), two movements are recorded: the first is the payment of an indemnity by the insurers equal to the value of the costs incurred, the second is the payment of the repair costs by the household. The costs are therefore entirely included in household final consumption expenditure. In the second case (costs paid by the insurer), in national accounting the transaction is recorded in exactly the same way as in the first case namely by means of

two movements as described above. Once again, this amounts to considering that the household directly pays the costs connected with the claims.

- i) the amount of car registration taxes as part of the taxes on products;

The tax on vehicle registration certificates (formerly known as "cartes grises") relating to the acquisition of a vehicle by a household is recorded as household consumption expenditure. It corresponds to the counterpart of the taxes on products counted in output (D21). The household consumption expenditure relating to this expenditure amounted to €1.5bn in 2010. This amount was provided by the tax authority (Directorate General for Public Finances (DGFIP)).

- j) pension funding services by the amount of the implicit service charge;  
This case does not arise in France.

- k) payments by households for licences, permits, etc. which are regarded as purchases of services (see ESA 2010 §§4.79 and 4.80).

Among the different taxes and levies paid by households, only those corresponding to the purchase of a service from general government are included in household final consumption expenditure. Thus, refuse collection tax (TEOM) and roadsweeping tax are treated as a remuneration of services produced by local government and therefore as household consumption expenditure (function 04 - Housing). Similarly, the audiovisual licence fee is treated as a purchase of programming and broadcasting services (function 09 - Leisure). Sums paid by households to obtain a licence, a permit, etc. are also recorded as household final consumption expenditure as a product under GO84Z (function 12 - Other goods and services). All these payments are valued directly from tax authority (DGFIP) data.

2) Provide information on how the exclusion of the following borderline cases from HFCE is ensured:

- α) social transfers in kind;

Individualisable expenditure of general government corresponding to expenditure on market goods and services that it transfers to households in the form of social transfers in kind is deducted from actual household expenditure. This mainly concerns health goods and services, dwelling services and social work activities. The estimation of social transfers in kind is described in Chapter 5.9.6.e.

- β) all those payments by households which are to be regarded as taxes (see ESA 2010 §§4.79 and 4.80);

Among the different taxes and levies paid by households, only those corresponding to the purchase of a service from general government are included in household final consumption expenditure (cf. 5.2.1.k).

- χ) subscriptions, contributions and dues paid by households to NPISH; voluntary transfers in cash or in kind by households to charities etc. (see ESA 2010 §§4.125-4.126);

Subscriptions, voluntary contributions, dues and donations, whether in cash or in kind, are recorded as uses in institutional sector S14 as current transfers to NPISH (D751). They are therefore not taken into account either in actual household expenditure or in household consumption expenditure. Furthermore, it is considered that donations in kind are negligible.

Likewise, large gifts, donations or legacies are recorded in other capital transfers (D99) and are therefore not recorded as household final consumption expenditure.

- δ) expenditure that an owner-occupier incurs on the decoration, maintenance and repair of the dwelling not typically carried out by tenants.

Expenditure by owner-occupiers on small repairs, maintenance or decoration carried out in the dwelling as part of their possession of the dwelling are treated as intermediate consumption for dwelling services output. The evaluation of intermediate consumption is described in the production approach (cf. 3.18).

### 5.2.2. The borderline cases for GFCF

1. Provide information on how the inclusion of the following borderline cases in GFCF is ensured (see ESA 2010 §3.129):
  - a) R&D (with the exception of the R&D acquired to be used solely in the creation of further products of R&D);  
The R&D survey – which enables both external R&D expenditure and own-account production of R&D to be isolated – is used to ensure that the GFCF includes the R&D expenditure.
  - b) structures and equipment used by the military;  
State accounting data enables the corresponding expenditure to be isolated and treated in GFCF.
  - c) light weapons and armoured vehicles used by non-military units;  
Public accounting data enables expenditure on military equipment to be isolated and treated in GFCF, whether such equipment is used by military or non-military units.
  - d) mineral exploration and evaluation;  
No mineral exploration identified.
  - e) computer software and databases;  
Cf. Chapter 3.
  - f) entertainment, literary or artistic originals;  
Cf. below.
  - g) other intellectual property rights;
  - h) changes in livestock used in production year after year;

- i) changes in trees that are cultivated year after year;
  - j) improvements to existing fixed assets beyond ordinary maintenance and repairs;
  - k) the acquisition of fixed assets by financial leasing;
  - l) terminal costs, i.e. large costs associated with disposal;
  - m) the amount of car registration taxes as part of the taxes on products.
2. Provide information on how the exclusion of the following borderline cases from GFCF is ensured (see ESA 2010 §3.130):
- a) transactions included in intermediate consumption, like;
    - i. purchase of small tools for production purposes;
    - ii. ordinary maintenance and repairs;
  - iii. the acquisition of fixed assets to be used under an operational leasing contract
    - b) transactions recorded as changes in inventories (animals raised for slaughter, trees grown for timber);
    - c) catastrophic losses on fixed assets;
    - d) machinery and equipment acquired by households for the purposes of final consumption.
- 3) Provide information on how the distinction is made between HFCE and intermediate consumption or GFCF of unincorporated enterprises.

### **5.3. Valuation**

- 1) Describe the procedures applied to ensure that final consumption expenditure is valued at purchasers' prices for purchased products, at basic prices for own-produced products. If the sources do not provide the data in the correct national accounts valuation, describe the adjustments made, including the additional data sources or assumptions used.

Actual household expenditure is valued at the acquisition price. Whether for current year estimates or for benchmark years, the sources used give the consumption directly at the acquisition price (satellite accounts for example) or consumption exclusive of tax (ESANE for example). To switch from a tax-free price to an acquisition price (or vice versa), theoretical VAT rates are used.

Whatever the source used, pre-tax household consumption is validated as part of the supply and use balances at a fine level of detail, which are exclusive of tax. The theoretical VAT rates are then used in the case of a tax-inclusive source. After balancing the supply and use balances, the transition to consumption at the acquisition price is carried out again by applying the theoretical VAT rates for each product at the most detailed level.

Remark: for self-consumption or output for own final use, the theoretical VAT rate is nil.

## Determination of the VAT rates to use

The tax authority, the Treasury (DG Trésor), provides VAT rates produced at the most detailed level of classification of household consumer products, making the distinction between household consumption expenditure and the individualisable expenditure of general government and NPISH. These concern only metropolitan France are not adjusted for fraud with collusion or VAT exemption. To define the VAT to be taken into account for the benchmark year, adjustments have been made for geographical coverage, fraud with collusion and VAT exemption.

VAT rates are different to metropolitan France in the Overseas Departments (DOM), Reunion Island, Guadeloupe, Martinique and French Guiana. In 2010, the normal rate was 8.5% instead of 19.6% and the reduced rate was 2.1% rather than 5.5% (there is no super-reduced rate in the DOMs for medicines and the press). Consumption in Mayotte is not subject to VAT. The adjustment to take account of the DOMs consists of taking, for each product, an average of the VAT rates that apply in the DOM and in metropolitan France, weighted by the consumption exclusive of tax in each of these territories.

For each given product, the theoretical VAT rate (to be applied in national accounting) takes account of the consumption generated by VAT fraud with collusion. This type of fraud involves transactions between a producer and a customer that are not declared to the tax authorities, with the two parties colluding in the fraud (case of undeclared work). It is considered that the VAT rate for this type of transaction is nil. In this way, the theoretical VAT rate is a weighted average of the rates that apply to the product by respective turnovers (the rate for undeclared work being equal to 0%).

However, fraudulent transactions carried out without collusion (the producer does not declare the transaction to the tax authorities without the knowledge of the customer, the latter therefore paying the VAT which will not then be paid on to the tax authorities) are considered as having given rise to a payment of VAT by the customer. There is therefore no adjustment to be made to the theoretical VAT rate.

The VAT rate also takes account of VAT exemptions: since 1999, taxpayers whose turnover did not reach a certain threshold during the previous civil year have been exempted from VAT (in 2013, this threshold was €81,500 if they deliver goods, sales to consume on site and accommodation services, €42,300 for regulated activities such as lawyers and solicitors or activities concerning works of the mind or €32,600 if they provide other types of services). Taxpayers who opt for this exemption do not have to complete VAT returns and the turnover concerned is therefore not taken into account in the Treasury's analysis. The overall amount of the theoretical VAT must be rigorously adjusted to take account of the effect of the exemption. The exemption is only distributed between the products liable to be sold by the micro-enterprises concerned. A list of products concerned by the exemption has been validated jointly by INSEE and the Treasury (DGTrésor). Therefore, for each product, a part of the turnover is considered as exempt from VAT to take account of the exemption of these producers. This adjustment is not applied to the individualisable expenditure of general government as the enterprises who sell the market goods and services that give rise to this type of expenditure are not concerned by the exemption.

For the current year estimates, to obtain the VAT rate for the year, the ratio between the VAT rate for the year and that of the previous year provided by the Treasury (DGTrésor) and adjusted for the exemption is applied to the VAT rate for the year preceding the accounts.

- 2) Describe the steps taken to ensure the valuation of:

- a) goods and services supplied as employee compensation in kind at basic prices when produced by the employer and at the purchasers' prices of the employer when bought in by the employer;
- b) retained goods or services for own consumption at basic prices.
- 3) Describe the procedures applied to ensure that GFCF is valued at purchasers' prices including installation charges and other costs of ownership transfer. If the sources do not provide the data in the correct national accounts valuation, describe the adjustments made, including the additional data sources or assumptions used.
- 4) Describe the steps taken to ensure that GFCF produced on own-account is valued at the basic prices of similar fixed assets, and if such prices are not available, at the costs of production plus a mark-up (except for non-market producers) for net operating surplus or mixed income.
- 5) Describe the steps taken to comply with the valuation rules of acquisitions of intellectual property products (mineral exploration, computer software, entertainment, literary or artistic originals) as required in ESA 2010 §3.136.
- 6) Describe the steps taken to value disposals of existing fixed assets by sale at basic prices, deducting any costs of ownership transfer incurred by the seller.
- 7) Concerning the valuation of changes in inventories reference may be made to the more detailed description in Section 5.11.
- 8) Describe the valuation of export and imports of goods as foreseen in ESA 2010 §3.168.
- 9) Describe the valuation rules applied to exports and imports of services. Are exports of services valued at basic prices and imports of services at purchasers' price?
- 10) For all components, describe if the basic sources of expenditure are recorded on an accrued basis in line with ESA 2010 §§1.101-1.105? If not, describe the adjustments made, including the additional data sources or assumptions used.

#### **5.4. Transition from private accounting and administrative concepts to ESA 2010 national accounts concepts**

1. Provide a detailed comparative description of the concepts used in private and public accounting with national accounts concepts (reference may be made to other parts of the Inventory).
2. Provide a detailed description (or references to other parts of the Inventory) of the measures taken to ensure a satisfactory transition from private accounting and from government accounting to arrive at ESA 2010 concepts. References may be made to more detailed descriptions of adjustments in Sections 3.4, 4.4 and 5.7-5.16. The description should cover, at least, the following items:
  - a) Durable goods of small value;
  - b) Major repairs and renovations;

- c) Valuation of inventories;
  - d) Software and entertainment, literary and artistic originals;
  - e) Research and development;
  - f) Insurance service charge;
  - g) Allocation of FISIM;
  - h) Leasing.
- 3) Outline the treatment of income in kind, tips and gratuities in calculating GDP from the expenditure side (detailed description of measures taken to address statistical deficiencies in data, including income in kind – type N7 - should be made in the Chapter 7 on exhaustiveness).
  - 4) Provide a summary table showing the size of the various conceptual adjustments. This information should be consistent with the Process Tables.

### **5.5. The roles of direct and indirect estimation methods and of benchmarks and extrapolations**

- 1) Direct estimation methods are methods based on sources that give a direct value for the variable to be estimated. Indirect estimation methods are used in the absence of such a direct value and may comprise models, use of ratios, etc.
- 2) Provide a summary table indicating, for each component, the estimation method used (e.g. survey-based, administrative data, commodity-flow, quantity-price, other). This information should be consistent with the Process Tables.

The compilation of the levels of consumption expenditure was done at a detailed product breakdown level according to the NAF rev.2 product classification. A products/consumption function bridge table was then used to obtain the data in the functional classification, as required by Eurostat. This bridge table corresponds to the COICOP classification in force in 2015 (the data will be disseminated according to this classification from May 2016 onwards).

The table below gives the products concerned, for each method used (grouped at level G of the NAF rev.2). The same product may appear under several items. Indeed, as the evaluation is done at the most detailed level of the classification (i.e. a level more detailed than G), the aggregate at level G may include different sources and methods of estimation at the more detailed level. In addition, the evaluation of the consumption of the product may have been subjected to successive treatments. For example, a first “source” gives the actual household expenditure, a second “source” enables households' intermediate consumption to be removed and a third the individualisable expenditure of general government and NPISH.

Surveys & Censuses	GA01Z6 Crop and animal production, hunting and related service activities GC10B Fishing and aquaculture GC10B Processing and preserving of fish, crustaceans and molluscs GC10C Processing and preserving fruit and vegetables GC10D Vegetable and animal oils and fats GC10E Dairy products GC10F Manufacture of grain mill products, starches and starch products GC10G Bakery and farinaceous products GC10H Other food products GC11Z Beverages GC26B Computers and peripheral equipment GC26C Communication equipment GC26D-Consumer electronics GC26G-Optical instruments and photographic equipment - magnetic and optical media GC27A-Domestic appliances GC30E-Transport equipment n.e.c. GC32C-Sports goods, games and toys and other manufacturing GJ58Z-Publishing activities GM71Z-Architectural and engineering activities; technical testing and analysis Territorial balance
Administrative Records	GC14Z-Apparel; GC20A-Basic chemicals, fertilisers and nitrogen compounds, plastics and synthetic rubber GC21Z-Manufacture of basic pharmaceutical products and pharmaceutical preparations GC26F-Irradiation, electromedical and electrotherapeutic equipment GC29A-Motor vehicles, bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers GC30E-Transport equipment n.e.c. GC32B-Medical and dental instruments and supplies GE38Z-Waste collection, treatment and disposal activities; materials recovery GJ61Z-Telecommunications GK64H-Financial service activities, except insurance and pension funding (excl. FISIM) GK65Z-Insurance GL68R-Renting and operating of real estate (actual rents) GO84Z-Public administration and defence; compulsory social security GP85N-Education (non-market) GQ86M-Human health (market) GQ86N-Human health (non-market) GR90N-Creative, arts and entertainment activities (non-market) GR91N-Libraries, archives, museums and other cultural activities (non-market ) GR92Z-Gambling and betting activities GR93N-Sports activities and amusement and recreation activities (non-market) GS96Z-Other personal service activities GT97Z-Activities of households as employers of domestic staff
Combined Data	GA01Z-Crop and animal production, hunting and related service activities GB08Z-Other mining and quarrying GC10A-Processing and preserving of meat and meat products GC10G-Bakery and farinaceous products GC10H-Other food products GC10K-Prepared animal feeds GC13Z-Textiles GC15Z- Leather and related products GC16Z- Products of wood and cork (except furniture) - articles of straw and plaiting materials GC17B-Paper and paper products GC20A-Basic chemicals, fertilisers and nitrogen compounds, plastics and synthetic rubber GC20B-Soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations

	<p>GC20C-Other chemical products and man-made fibres  GC22A-Rubber products  GC22B-Plastic products  GC23A-Glass and glass products  GC23B-Other other non-metallic mineral products  GC24B-Basic precious and other non-ferrous metals  GC25E-Cutlery, tools, general hardware and other fabricated metal products  GC26A-Electronic components and boards  GC26C-Communication equipment  GC26D-Consumer electronics  GC26E- instruments and appliances for measuring, testing and navigation; watches and clocks  GC27A-Domestic appliances  GC27B-Other electrical equipment  GC28A-General-purpose machinery and equipment  GC28B-Agricultural and forestry machinery  GC29A-Motor vehicles, bodies (coachwork) for motor vehicles  GC29B-Parts and accessories for motor vehicles  GC30A-Building of ships and boats  GC30C-Building of air and spacecraft and related machinery  GC32A- Jewellery, bijouterie and related articles and musical instruments  GC32C-Sports goods, games and toys and other manufacturing  GG45Z-Wholesale and retail trade and repair of motor vehicles and motorcycles  GJ58Z-Publishing activities  GJ59Z-Motion pictures, video and television programmes - Sound recording and music publishing activities  GL68A-Buying and selling of real estate and real estate activities on a fee or contract basis  GQ88N-Social work activities without accommodation (non-market)</p>
Benchmark extrapolations	<p>GA02Z-Forestry and logging  GC10C-Processing and preserving of fruit and vegetables  GC10H-Other food products  GC12Z-Tobacco products  GC13Z-Textiles  GC14Z-Apparel  GC15Z- Leather and related products  GC19Z-Manufacture of coke and refined petroleum products  GC20A-Basic chemicals, fertilisers and nitrogen compounds, plastics and synthetic rubber  GC20C-Other chemical products and man-made fibres  GC21Z-Manufacture of basic pharmaceutical products and pharmaceutical preparations  GC22A-Rubber products  GC23B-Other other non-metallic mineral products  GC25C-Weapons and munitions  GC26E- instruments and appliances for measuring, testing and navigation; watches and clocks  GC26G-Optical instruments and photographic equipment - magnetic and optical media  GC28D-Other special-purpose machinery  GC29A-Motor vehicles, bodies (coachwork) for motor vehicles  GC30E-Transport equipment n.e.c.  GC31Z-Furniture  GC32A- Jewellery, bijouterie and related articles and musical instruments  GC32B-Medical and dental instruments and supplies  GC32C-Sports goods, games and toys and other manufacturing  GC33Z-Repair and installation of machinery and equipment  GD35A-Electric power generation, transmission and distribution  GD35B-Production and distribution gas, steam and air conditioning  GE36Z-Water collection, treatment and supply  GE37Z-Sewerage  GH49A-Rail transport  GH49B-Other passenger land transport  GH49C-Freight transport by road and via pipeline</p>

	<p>GH50Z-Water transport  GH51Z-Air transport  GH52Z-Warehousing and support activities for transportation  GH53Z-Postal and courier activities  GJ58Z-Publishing activities  GJ59Z-Motion pictures, video and television programmes - Sound recording and music publishing activities  GJ61Z-Telecommunications  GJ63Z-Information service activities  GL68R-Renting and operating of real estate (actual rents)  GM74Z-Other professional, scientific and technical activities  GM75Z-Veterinary activities  GN77Z-Rental and leasing activities  GN78Z-Employment activities  GN80Z-Security and investigation activities  GN81Z-Services to buildings and landscape activities  GN82Z-Office administrative, office support and other business support activities  GP85M-Education (market)  GQ87M-Residential care activities (market)  GQ87N-Residential care activities (non-market)  GQ88M-Social work activities without accommodation (market)  GQ88N-Social work activities without accommodation (non-market)  GR90M-Creative, arts and entertainment activities (market)  GR91M-Libraries, archives, museums and other cultural activities (market) GR93M-Sports activities and amusement and recreation activities (market)  GS96Z-Other personal service activities</p>
Commodity Flow Model	<p>GC20B-Soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations  GC30E-Transport equipment n.e.c.  GF43Z-Specialised construction activities  GG45Z-Wholesale and retail trade and repair of motor vehicles and motorcycles  GI55Z-Accommodation GI56Z-Food service activities  GJ59Z-Motion pictures, video and television programmes - Sound recording and music publishing activities  GJ60Z-Programming and broadcasting activities  GJ62Z-Computer programming, consultancy and related activities  GL68I-Renting and operating of real estate (imputed rents)  GL68R-Renting and operating of real estate (actual rents)  GM69Z-Legal and accounting activities  GN79Z-Travel agency, tour operator and other reservation service and related activities  GQ88N-Social work activities without accommodation (non-market)  GS95Z-Repair of computers and personal and household goods  GS96Z-Other personal service activities</p>
Dwellings - stratification method	<p>GL68I-Renting and operating of real estate (imputed rents)  GL68R-Renting and operating of real estate (actual rents)</p>
Other E&M	<p>GC19Z-Manufacture of coke and refined petroleum products  GC29A-Motor vehicles, bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers</p>
Data validation	<p>GP85N-Education (non-market)  GQ86N-Human health (non-market)</p>
Allocation of FISIM	<p>GK64S-FISIM</p>
Other conceptual	<p>GA01Z-Crop and animal production, hunting and related service activities  GA03Z-Fishing and aquaculture  GB08Z-Other mining and quarrying  GC10A-Processing and preserving of meat and production of meat products  GC10B-Processing and preserving of fish, crustaceans and molluscs  GC10C-Processing and preserving of fruit and vegetables  GC10D- Vegetable and animal oils and fats</p>

<p>GC10E-Dairy products  GC10F-Manufacture of grain mill products, starches and starch products  GC10G-Bakery and farinaceous products  GC10H-Other food products  GC10K-Prepared animal feeds  GC11Z-Beverages  GC13Z-Textiles  GC14Z-Apparel  GC15Z- Leather and related products  GC16Z- Products of wood and cork (except furniture) - articles of straw and plaiting materials  GC17B-Paper and paper products  GC19Z-Manufacture of coke and refined petroleum products  GC20A-Basic chemicals, fertilisers and nitrogen compounds, plastics and synthetic rubber  GC20B-Soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations  GC20C-Other chemical products and man-made fibres  GC21Z-Manufacture of basic pharmaceutical products and pharmaceutical preparations  GC22A-Rubber products  GC22B-Plastic products  GC23A-Glass and glass products  GC23B-Other other non-metallic mineral products  GC24B-Basic precious and other non-ferrous metals  GC25E-Cutlery, tools, general hardware and other fabricated metal products  GC26A-Electronic components and boards  GC26B-Computers and peripheral equipment  GC26C-Communication equipment  GC26D-Consumer electronics  GC26E- instruments and appliances for measuring, testing and navigation; watches and clocks  GC26G-Optical instruments and photographic equipment - magnetic and optical media  GC27A-Domestic appliances  GC27B-Other electrical equipment  GC28A-General-purpose machinery and equipment  GC28B-Agricultural and forestry machinery  GC28D-Other special-purpose machinery  GC29A-Motor vehicles - bodies (coachwork) for motor vehicles  GC29B-Parts and accessories for motor vehicles  GC30A-Building of ships and boats  GC30C-Building of air and spacecraft and related machinery  GC30E-Transport equipment n.e.c.  GC31Z-Furniture  GC32A- Jewellery, bijouterie and related articles and musical instruments  GC32C-Sports goods, games and toys and other manufacturing  GF43Z-Specialised construction activities  GG45Z-Wholesale and retail trade and repair of motor vehicles and motorcycles  GI55Z-Accommodation  GI56Z-Food service activities  GJ58Z-Publishing activities  GJ59Z-Motion pictures, video and television programmes - Sound recording and music publishing activities  GJ60Z-Programming and broadcasting activities  GJ61Z-Telecommunications  GJ62Z-Computer programming, consultancy and related activities  GK64H-Financial service activities, except insurance and pension funding (excl. FISIM)  GK64S-SIFIM  GL68R-Renting and operating of real estate (actual rents)  GM69Z-Legal and accounting activities  GN79Z-Travel agency, tour operator and other reservation service and related activities  GN81Z-Services to buildings and landscape activities  GQ87M-Residential care activities (market)  GQ88M-Social work activities without accommodation (market)</p>
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	GQ88N-Social work activities without accommodation (non-market) GS95Z-Repair of computers and personal and household goods GS96Z-Other personal service activities GT97Z-Activities of households as employers of domestic staff
N1	GG45Z-Wholesale and retail trade and repair of motor vehicles and motorcycles GT97Z-Activities of households as employers of domestic staff
N2	GC12Z-Tobacco products
N3	GA01Z-Crop and animal production, hunting and related service activities GA02Z-Forestry and logging GA03Z-Fishing and aquaculture GC10A-Processing and preserving of meat and production of meat products GC10E-Dairy products GC11Z-Beverages
N6	GQ86M-Human health activities (market)
Balancing	GL68R-Renting and operating of real estate (actual rents) (Adjustment made on the individualisable expenditure of general government on housing)

- 3) For items for which the most current year estimates are based on models the following aspects should be addressed:
- Is the model calculated annually or for a recent year (i.e. not older than 5 years)?
  - Does the model provide a representative picture of the component to which it is applied?
  - Are any assumptions underlying the model regularly reviewed?

The methods of estimating household consumption (apart from those based on the extrapolations described in point 4) concern:

- actual and imputed rents (cf. 5.7.2.2 and 3.18);
- petroleum products and motor vehicles (cf. 5.7.2.2);
- the services for which the annual sectoral surveys (ESA) provide a breakdown of the customer base between intermediate consumption of enterprises and household final consumption (cf. 5.7.2.2 on annual business surveys in the services).

In the two first cases, these methods are used both to fix the benchmark level and for current year estimates. On the other hand, the customer base breakdown method is only used to establish base levels.

- 4) For items for which the most current year estimates are based on extrapolations from a benchmark year the following aspects should be addressed:
- Outline the extrapolation method.
  - What is the benchmark year used?
  - In how far are the indicators used in extrapolations representative of the activities to which they are applied?
  - Are any assumptions underlying extrapolations reviewed regularly?

For household consumption, extrapolation methods were used in two cases. The first concerns social work products for which the data are from surveys available for the years 2007 and 2008 on the unit rates for services. These data are then extrapolated using price change indicators (see chapter on the output of social work activities). The

second case concerns products for which no recent level information was available at the time of compiling the levels of base 2010: the levels for the year 2010 that were in base 2005 were therefore used again, after adjustment of the changes, if necessary (the changes used were those of the process described in 5.7.2).

For current year estimates, extrapolation methods are also used in the cases mentioned above, but also for all products for which sources on levels are available (only the changes were used, cf. 5.7.2).

## **5.6. The main approaches taken with respect to exhaustiveness**

1. List the main methods used in the expenditure approach to ensure exhaustiveness. References may be made to more detailed descriptions in Sections 5.7-5.16 and in Chapter 7.
2. Provide a summary table showing the size of the various exhaustiveness adjustments in the breakdown of expenditure components and types of non-exhaustiveness (N1-N7). This information should be consistent with the Process Tables and Chapter 7.

## **5.7. Household final consumption expenditure (HFCE)**

### **5.7.1. Overview**

- 1) Provide a table showing by COICOP items the NA results and the main source and the estimation method used. It should be consistent with the information provided in the Process Tables.

### **5.7.2. Main data sources and their conversion to national accounts results**

- 1) Describe the general approach to estimate HFCE, in particular with regard to the following aspects:
  - a) Are all relevant available sources (HBS, retail trade data, administrative sources, others) used for estimating HFCE?
  - b) For individual COICOP items, is the “best” source chosen from the alternatives available?
  - c) Is the selection of the “best” source sufficiently justified?

The French national accounts are compiled according to the European System of Accounts 2010 (ESA 2010), a distinction is made between two notions of final consumption: final consumption expenditure and actual final consumption.

Household final consumption expenditure consists of expenditure incurred by resident households on goods or services that are used for the direct satisfaction of “individual” human needs. This expenditure is limited to the expenditure incurred directly by households and therefore does not include the individualisable expenditure of general government or non-profit institutions serving households (NPISH).

Actual household final consumption covers all the goods that they actually use (or consume) no matter how they are financed.

“Social transfers in kind from government” make up the gap between the two notions. This

corresponds to social security reimbursements, housing benefits, public spending on education, health, etc.

Market goods and services make up most of household final consumption expenditure. This corresponds to purchases of goods and services (except for housing, but including the purchasing of cars under leasing agreements). They also include self-consumption of the goods and services that households have produced and the benefits in kind provided by employers to their employees or by the army to military personnel.

Consumption expenditure excludes expenditure on the acquisition of dwellings and major improvement work on them (which constitute fixed capital formation) and the interest on loans relating to dwellings. It does not record expenditure relating to the acquisition of valuables and taxes. It does not include transactions between households; only the trade margins of any intermediary-dealers are taken into account.

Household final consumption expenditure is estimated as part of supply and use balances (ERE). The classification used to compile consumption therefore corresponds to a product classification and not a functional classification. It classifies products from a standpoint based on manufacturing processes and the material of the object consumed (textiles, wood, chemicals, etc.). It distinguishes between goods and services and market and non-market. Over 400 elementary items are tracked. The total household final consumption expenditure is obtained by simple aggregation of elementary items. A products/functions bridge table then enables the products to be broken down according to the functional classification.

The compilation of the consumption expenditure for each elementary product is the result of the following process.

1. expert assessment of the sources and estimation methods;
2. exploitation of the sources available on levels;
3. exploitation of the sources enabling change indicators to be obtained;
4. confrontation of the data on the scope of tradable consumption;
5. removal of any double-counts and consumption additions;
6. confrontation with the other uses in the supply and use balances.

#### A/ Expert assessment of the sources and estimation methods

The aim of this stage is to validate the different sources available and ensure that they cover both the scope of household consumption and that of the products tracked in the elementary item. Indeed, certain sources provide information at a greater level of detail than that of the classification of items used for household consumption. The expert assessment enables certain products to be reclassified or new ones to be added into the items tracked. Other sources enable global levels of expenditure to be defined, but include intermediate consumption or business investments, even exports. This is the case in particular for business statistics sources for which specific methods of exploitation have to be applied. When constructing the benchmark year, the breakdown by type of customer base between households and enterprises (based on the annual sectoral business surveys) makes it possible to refocus on the specific scope of household consumption in services.

The geographical coverage of the different sources available in levels is also verified, sometimes leading to a revision of the levels (or changes in current year estimates) to take

account of this coverage. By way of example, the data on car purchases by households were not available, in base 2005, for the overseas Departments (DOM) scope. In base 2010, this information, now available, is used.

The analysis of the sources is also extended to the search for new sources, whether information available annually (for the needs of the current year estimates) or on a one-off basis (for the construction of the benchmark year). This was the case in particular for tobacco consumption in 2010, when it was possible to estimate smuggling thanks to a study by the French Monitoring Centre for Drugs and Drug Addiction (OFDT).

Finally, beyond the quality of the sources available, the estimation methods are also assessed. Although most of the methods in base 2005 have been retained, a few have been revised. These are for example the methods of estimating insurance for which the transition to life insurance production accounts and keys for allocating insurance premiums and claims between institutional sectors have been completely overhauled.

Outside of the construction of the benchmark year, the expert assessment of new sources and methods of calculating changes is done for current year estimates, the aim being to always track as closely as possible changes in prices and volumes of the different products at the most detailed level possible.

#### B/ Exploitation of the sources available in levels

Certain data available at the most detailed level of the classification cover all or almost all the scope of the products in question. These are often data of administrative origin or based on the exploitation of panels of distributors or consumers. The levels that result from these sources are then used to set the benchmark levels or to determine changes in current year estimates. This is the case of satellite accounts in particular, such as the housing account which provides the actual consumption of actual and imputed rents, or the health account for household consumption expenditure or individualisable general government expenditure on health goods and services. Likewise, the consumption levels provided by panels of distributors or consumers have been used, taking account of the latest data available. For certain products (motor vehicle repairs, for example), the level has been fitted directly to the business statistics (ESANE). For a few products, in the absence of recent information, the base 2005 level has been used to set the level for 2010.

As the last family budget survey (2011) was not available when the levels for base 2010 were being prepared, it could not be used to establish the levels.

#### C/ Exploitation of the sources enabling change indicators to be obtained

There are numerous sources providing indications on changes in consumption, without having information on the level of consumption itself (cf. 5.7.2.2 on sources enabling change indicators to be obtained). These sources cannot be used to set the levels for the benchmark year, but they are used for current year estimates, to determine changes in value, volume or price. The expert assessment of the sources (as described above) is also carried out prior to any use.

#### D / Confrontation of different sources

The levels of household tradable consumption have been assessed, product by product, by

confronting different sources, namely data from the business statistics (ESANE), panels of distributors or consumers and various administrative sources such as satellite accounts, the Banque de France, etc. This confrontation between the traditional household consumption sources and retail turnover was done on groups of products (41 categories, cf. method of comparison with tradable consumption described in 5.7.2.8 in the chapter specifically devoted to this subject).

This confrontation was carried out at the time of constructing the benchmark year, but also for each final and semi-final account. For the provisional account, this confrontation does not take place as the business data are not available.

#### E/ Removal of any double-counts and consumption additions

The sources used to establish household consumption allow the total level of consumption to be established for each product, but the purchase of the product may correspond to the household's final consumption or intermediate consumption. For example, a household that rents out a dwelling may carry out some small repairs in that dwelling, in which case this will be intermediate consumption necessary to the output of a dwelling service. The removal of double counts between household final consumption and intermediate consumption therefore reduces household consumption. This removal was done at the time of constructing the benchmark year. For the current year estimates, it is considered that household intermediate consumption evolves at the same pace as final consumption.

None of the sources available to calculate household consumption expenditure include fraud and undeclared work. Therefore, it is necessary to increase household consumption expenditure on certain products to take account of fraud or undeclared working. For the current year estimates, it is considered that undeclared working and fraud evolve at the same pace as household consumption excluding fraud and undeclared working, except fraud in the market health field. Fraud in market health is evaluated every year using a fraud rate applied to market health output. Similarly, the consumption relating to contraband tobacco is added every year.

#### F/ Confrontation with the other uses in the supply and use balances

The evaluations of actual household expenditure (household final consumption expenditure and individualisable expenditure of general government and non-profit institutions serving households) are introduced into the supply and use balances drawn up by the sector-product managers, from an output-based standpoint. The confrontation is then carried out on pre-tax data over valued added. If the consumption valuations proposed are deemed incompatible with the supplies and other uses estimated by the sector-product managers, the sources are checked and re-examined, taking account of their degree of accuracy in order to arrive at converging estimates.

- 2) Describe in detail the main sources used and the calculation steps from source data to NA results.
- 5) Describe in detail the main sources used and the calculation steps from source data to NA results.

Numerous sources are used to determine the benchmark levels or annual changes (in value, volume and price) for the current year estimates of the different components of household consumption expenditure:

- various administrative sources such as satellite accounts and analyses, ARCEP (electronic communications and postal regulation authority), the Banque de France, etc.
- external sources: panels of distributors or consumers (GfK, Nielsen, France Agrimer Panel Kantar), professional organisations (French council for petroleum (CPDP), French automobile manufacturers' association (CCFA), etc.).
- indices (consumer price index, CA3 turnover index, production price index, industrial production index, etc.).

The administrative and external sources, in most cases, allow both levels of consumption and annual changes to be obtained. The indices, as the names suggests, are used annually to identify changes in consumption expenditure, without being able to determine levels.

### **Data from panels of distributors or consumers**

Household consumption can also be assessed using data from panels of consumers or distributors (AC Nielsen, GfK, panel Kantar de France Agrimer, IFM, etc.).

AC Nielsen, for example, tracks the sales of products in hypermarkets and supermarkets and hard discount stores, in value and in quantity, for certain food products, homecare and personal care products and consumer durables. Similarly, panel research firm GfK provides, based on a panel of distributors, information on purchases of manufactured goods, household equipment and publishing. France Agrimer's Kantar panel of households provides information on changes in spending on certain food products. The French fashion institute (IFM) publishes information, from a panel of distributors or consumers, on annual changes in retailers' turnover and the purchases made by households in the apparel field. Other examples are also worthy of mention, such as the French furniture industry research institute (IPEA) for furniture consumption (GC31Z).

Information from panels of distributors or consumers helps to evaluate household consumption expenditure in terms of both level and changes. However, they include household intermediate consumption. To determine the benchmark level, the latter is deducted from the level obtained after confronting with the tradable consumption data. For the current year estimates, it is considered that the portion of intermediate consumption is fixed for the products concerned. The changes obtained are also confronted with the tradable consumption data for the current year estimates (cf. 5.7.2.8).

### **Housing satellite account and rent expenditure**

Dwelling services consumption (actual and imputed rents) is evaluated by the housing satellite account based mainly on a housing survey carried out with households every 5 to 7 years. These surveys provide an amount of rent per m<sup>2</sup>, by rental sector (physical person landlords, social housing, etc.) and by type of home (individual or collective) and enable imputed and actual rents to be calculated. To update rents every year, the satellite account also uses the information on rent changes from the INSEE's Rents and Charges survey and estimations of the housing stock made jointly with the INSEE based mainly on population census data and new building statistics.

As they correspond to the national accounts concept, the evaluations of the housing satellite

account are used directly to establish the actual consumption level in the benchmark year and to define the changes in value, volume and price in current years.

An extra treatment enables actual consumption and final consumption expenditure on actual rents to be distinguished. The individualisable expenditure of general government, provided every year by the tax authority (Directorate General for Public Finances (DGFIP) is deducted from actual rent consumption to obtain the household final consumption expenditure.

### **Health satellite account and health expenditure**

General government provides households with benefits in kind that are included in their final consumption expenditure. In the health field, in addition to exercising a non-market activity through public hospitals, the social security funds also have expenditure that concerns market goods and services: their intervention generally takes the form of reimbursements. A part of the expenditure remains payable by households, directly or through mutual funds or other forms of insurance.

All health expenditure is covered by a satellite account where all the information is gathered and confronted: the National Health Insurance Administration (CNAM) for reimbursed expenditure, reimbursable expenditure and extra-billing, by type of care and place of performance; INSEE for the non-market health output of the public hospital sector; the DGFIP (Directorate General for Public Finances) for the public and non-profit private hospitals account; the Social Security account drawn up by the Directorate for Social Security (DSS) and finally the publications of the professional bodies on medicines and spa treatments. The evaluations of the health satellite account for market goods and services are fed into the central framework of the national accounts. The main products concerned are medicines and other pharmaceutical products (GC21Z), market health services (GQ86M) and certain industrial products (such as corrective glasses or medical/surgical and dental materials in GC322B).

The health account distinguishes households' consumption expenditure from their actual consumption by adding the individualisable health expenditure of general government. The amount of market health expenditure is confronted with the evaluations made by the tax authority (DGFIP) of social benefits in kind for health.

Final non-market health consumption expenditure corresponds to households' partial payments to general government (according to the DGFIP). Actual household non-market health consumption corresponds to health output (estimated using an input method) minus market output and households' partial payments (source: DGFIP).

### **Registration of new and second-hand cars and car consumption**

The estimation of new and used car consumption rests on the availability of exhaustive data relating to new and second-hand car registrations. This information comes from the vehicle registration database operated by the French automobile manufacturers' association (CCFA). The method of evaluation differs for new cars and second-hand cars.

#### **1. New car consumption**

The valuation of purchases of new cars by households is carried out every year. This valuation enables the level for base 2010 to be fixed, but also the determination of changes in value and volume in the current year estimates. The amounts determined in this way are confronted with the tradable consumption data (cf. 5.7.2.8).

Two types of data are used to estimate new car consumption: first, the number of registrations detailed by type of car, and secondly, the catalogue price of new cars. The catalogue price is

adjusted to take account of ecological bonuses and maluses. The data on the detailed number of registrations are valued by using the prices of new cars.

An adjustment coefficient corresponding to the ratio of changes in consumer prices of new cars with promotional offers and that without promotional prices is applied to take account of trade discounts. In addition, in the years when there is a car scrap scheme, the amount of the car scrap allowance (according to the DGFIP) reduces the previous valuation.

## 2. Second-hand car consumption

To calculate household second-hand car consumption, it is necessary to know the type of seller. Allocation keys (taken from base 2005) are used to determine the distribution of second-hand vehicles according to the origin of the seller and the proportion of them that go through specialist traders.

The data on the numbers of second-hand car registrations according to seller origin are valued by the average price of a second-hand car. The average price is estimated by the French automobile manufacturers' association (CCFA) using the price of a new vehicle and applying a discount.

When the sale takes place from household to household without an intermediary, the consumption included in the national accounts is considered as nil. If the sale takes place with an intermediary, only the intermediary's margin is recorded as household consumption.

Finally, the value of sales from a household to an enterprise reduces the value of households' purchases from an enterprise (cf. 5.2.1.1.d).

The amounts determined in this way are confronted with the tradable consumption data (cf. 5.7.2.8).

### **Petroleum products**

Petroleum professionals (French council for petroleum (CPDP)) supply large amounts of monthly data on quantities delivered on the domestic market, by category of product and according to the use made of them.

To fix the benchmark levels, the valuation is based on average monthly prices (supplied by the CPDP or the French council for butane-propane (CFBP)) and the quantities per product. The breakdown by type of use is performed using the CPDP data (divided into different uses) and the data from the transport account which break down quantities of fuel used according to user (private cars, motorcycles, heavy goods vehicles, etc.). For a few products, as the average prices are not available, the level from base 2005 has been used. The level was then confronted with the tradable consumption data (cf. 5.7.2.8) before household intermediate consumption of these products was deducted.

For the current year estimates, the same principle is used, except where average prices are not available. In this case, the volume indices are based on changes in the quantities delivered in the household scope and the prices change in line with the consumer price index for the product concerned. The amounts determined in this way are confronted with the tradable consumption data (cf. 5.7.2.8).

### **Annual business surveys in the services**

The annual business surveys (ESA) provide information on the breakdown of the sales of services by type of customer (“enterprises and competitive public sector”, “general and local government” or “individual customers”). Using this breakdown of sales, it is possible to extrapolate the breakdown of all the supplies (retrieved from the supply and use balances) between household uses, assimilated with individual customers, and those of the other

institutional sectors. This method was used to determine the level of consumption of accommodation (GI55Z), food services (GI56Z), programming and broadcasting (GJ60Z), legal and accounting activities (GM69Z), repair of computers and personal and household goods (GS95Z). This method is only used when preparing the levels for the benchmark year.

**The main sources that provide change indicators, without indicating levels.**

Certain sources do not provide indicators of levels of household consumption, but only of annual or infra-annual changes. These sources are used for the current year estimates to determine annual changes in certain consumer products at the most detailed level of the product classification. These are often indicators that imperfectly cover the household consumption scope. They are therefore only used in the absence of any other information. They can determine either a value, a volume or a price index.

**Turnover indices** are monthly indices of gross turnover exclusive of VAT, broken down into the levels of NAF rev.2. They are calculated using VAT forms known as CA3s provided to the tax office and completed by enterprises liable for VAT. Depending on the product tracked, turnover indices in industry of retail trade may be used. As these indices are indicators exclusive of tax and consumption expenditure is tax inclusive, the change obtained from them is adjusted by the change in the VAT rate for the product in question. Turnover indices generally imperfectly cover the household consumption scope, as they also include intermediate consumption and business investments and do not take foreign trade into account. In the absence of complementary information, these indices are used, whilst supposing that the different components change at the same pace. Furthermore, an enterprise's entire turnover is attributed to its main activity, which implies both the inclusion of changes to products not connected to secondary activities and also the omission of changes to products relating to enterprises' secondary activities. These indices are used for products such as food services (GI56Z) or legal and accounting activities (GM79Z).

**Detailed industrial production indices (IPI)** are calculated using data collected in branch surveys. Monthly industrial production indices reflect, depending on the product tracked, quantities, deflated turnover or volumes of hours worked. They are broken down according to the levels of the NAF rev.2. IPI indices imperfectly cover the household consumption scope as they reflect the activity of the enterprises in the branch in the territory (and therefore both external demand, or exports, and domestic demand such as household consumption, intermediate consumption or business investments), but do not include imported products. In the absence of complementary information, these indices are used, whilst supposing that the household consumption changes in line with output.

**Annual production surveys (EAP)** provide invoices, exclusive of tax, collected from enterprises in the industrial sector according to the French production survey classification (Prodfra). These surveys, combined with data on imports and exports (supplied by the directorate general of customs) allow a supply and use balance to be reconstituted. Household consumption is assumed to have changed in line with the aggregate thus determined, whilst supposing that the household consumption, intermediate consumption and business investment components change in unison.

The price indices used for household consumption in the national accounts are mostly based on the **consumer price index (CPI)**, calculated monthly. For the items concerned, the price index used corresponds to a specific grouping of items and varieties from the CPI.

**Production price indices (PPI)** measure changes in the transaction prices, exclusive of VAT and other taxes, of goods (for the industrial PPI) or services (for the PPI in services) produced by enterprises' activities and sold on the French market. They are therefore valued according

to the basic price concept (exclusive of VAT, exclusive of taxes on products, subsidies on products not deducted) and are broken down according to the levels of the NAF rev.2. These indices are used for products for which there is no consumer price index available such as veterinary pharmaceutical preparations (HC21Z2B).

- 3) Provide, if possible, the tables proposed in the “Tabular Approach to Household Final Consumption Expenditure” developed in the context of the Phare program.

The adjustments made to take account of the non-exhaustiveness of the sources concern self-consumption of food products, contraband, fraud and undeclared working. The adjustments represent 0.5% of GDP. The table below details the amounts concerned.

	Type of adjustment for non-exhaustiveness							Total value (in €m)	% of GDP
	N1	N2	N3	N4	N5	N6	N7		
<b>Household final consumption expenditure</b>	<b>4,177</b>	<b>3,726</b>	<b>3,134</b>	<b>0</b>	<b>0</b>	<b>2,998</b>	<b>0</b>	<b>14,035</b>	
<b>Purchases of goods and services</b>		3,726						3,726	
Including smuggled tobacco GC12Z (COICOP 02)		725						725	
Including consumption of narcotics		3,000						3,000	
<b>Output for own final use</b>	<b>2,459</b>	<b>0</b>	<b>3,134</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5,593</b>	
Agricultural goods (self-consumption, COICOP 01, 02 and 04)			3,134					3,134	
Household output (undeclared work in domestic services GT97Z, COICOP 05 + undeclared working, home helps GQ88N)	2,459							2,459	
<b>Other components of household consumption expenditure</b>	1,718					2,998		4,716	
Undeclared work in maintenance and repair of motor vehicles services GG45Z (COICOP 07)	1,718							1,718	
Fraud in health services GQ86M (COICOP 06)						2,998		2,998	

Depending on the sources, fraud and undeclared working may or may not be included in the data: the data from ESANE on tradable consumption have been adjusted for fraud, but not for undeclared working; the ESA surveys take into neither fraud nor undeclared working;

external sources are thought to take account of fraud and undeclared working when they are based on consumer responses, but not when they are based on distributors' responses or on administrative data. Therefore, household consumption expenditure must be increased to take account of fraud and undeclared working for the products whose sources do not include fraud and undeclared working. For undeclared working, this concerns maintenance and repair of motor vehicles services (GG45Z), home helps (HQ88N2) and domestic services (GT97Z). Consumption expenditure on market health services (GQ86M) has been increased to take account of fraud.

Similarly, the consumption relating to contraband tobacco has been added. On the other hand, contraband alcohol has not been included: investigations of alcohol smuggling have shown that it is too marginal to have an impact on GDP.

Finally, self-consumption of agricultural products was determined when the sector-product manager created the supply and use balances, often by taking the levels from base 2005 and updating them.

- 4) For COICOP items for which retail sales data is used, provide a table showing the retail sales figures and their conversion into NA results. This table should show the different adjustments made (e.g. population adjustments, adjustments for differential non-response, conceptual adjustments such as own produced goods, income in kind, insurance service charge, FISIM, and balancing adjustments).

The last family budget survey (2011) was not available when the levels for base 2010 were being prepared, it could not be used to establish the levels.

- 5) If HBS is used, provide information on how the recommendations from the GNP Committee Task Force on HBS (CPNB 204) are applied.
  - a) Are uplift factors applied to expenditure from the HBS before use for national accounts purposes (in particular for certain items like alcohol and tobacco, meals out, etc...)?
  - b) Are steps taken to reduce underreporting for infrequently purchased items and expenditure by children?
  - c) Are adjustments made for differences in population, concepts, definitions and classifications between HBS and national accounts that may lead to undercoverage?
  - d) Are HBS based estimates compared with national accounts estimates based on other sources (retail sales, commodity flow/supply side estimates, administrative data, business statistics, etc....) for validation purposes?

The last family budget survey (2011) was not available when the levels for base 2010 were being prepared, it could not be used to establish the levels. However, a comparison was carried out after the publication of the national accounts in ESA SEC 2010 format (cf. below).

- 6) Include, if possible, a comparison between the household budget survey results and the national accounts estimates (see recommendations of the Task Force on the use of the Household Budget Survey, document CPNB/204).

The scope of the family budget survey (BDF) and that of the national accounts (NA) are identical (all of France including Mayotte). The NA level used for the comparison

corresponds to a weighted average of the consumptions of 2010 and 2011, for the whole of France. Indeed, given that the family budget survey is carried out in 6 waves (including one in 2010, one straddling 2010 and 2011, and four in 2011), the BDF expenditure is compared to a weighted average of the national accounting consumptions for 2010 and 2011 (respectively for 3/12 and 9/12).

The comparison between the NA and the family budget survey is carried out using the COICOP classification, at a 4-digit level, the most detailed level common to both sources. NA does in fact work with the product classification. It has a bridge table that enables the consumption amounts to be obtained in 4-digit COICOP. This bridge table is based partly on allocation keys fixed over time. It was updated recently to bring it into line with the COICOP 2015 classification (cf. note no. 33/DG75-G422 of 5 October 2015). The BDF publishes its consumption amounts directly in 5-digit COICOP. Switching to a less detailed level therefore poses no problem.

The comparison will be made on functions 1 to 12. In fact, function 13 in the family budget survey does not correspond to consumption within the NA meaning: taxes and levies, loan repayments, major works, etc.

### 1. Before the adjustments, the gap is -31%

At this stage in the study and across the scope defined previously, the overall gap is -31% between NA expenditure and family budget survey expenditure (Figure 1). And yet, the structure of the expenditure according to the two sources is not so different, with the exception of dwelling expenditure (connected to the imputed rents included in the NA).

		CN	BdF	Ecart	Structure CN	Structure BDF
Fonc1	Alimentaire	143 524	124 176	-13%	13%	16%
Fonc2	Alcool et tabac	37 802	22 437	-41%	3%	3%
Fonc3	Habillement	44 857	38 041	-15%	4%	5%
Fonc4	Logement	280 118	118 167	-58%	25%	16%
Fonc5	Equipement du logement	56 897	44 546	-22%	5%	6%
Fonc6	Santé	45 949	13 653	-70%	4%	2%
Fonc7	Transports	152 251	131 099	-14%	14%	17%
Fonc8	Communications	33 682	25 099	-25%	3%	3%
Fonc9	Loisirs et culture	97 873	72 197	-26%	9%	10%
Fonc10	Education	9 502	5 000	-47%	1%	1%
Fonc11	Hotels, cafés et restaurants	71 372	53 976	-24%	6%	7%
Fonc12	Autres biens et services	133 800	110 511	-17%	12%	15%
<b>Total</b>		<b>1 107 627</b>	<b>758 901</b>	<b>-31%</b>	<b>100%</b>	<b>100%</b>

## 2. The adjustments made

Scanning each function allows significant adjustments to be made. They are of two types: removal of items of expenditure and addition of items of expenditure. They are listed in figure 2.

Figure 2: Addition or removal of products with an impact on the overall NA or family budget survey levels.

Nom	Fonction impactée	Impact sur la CN	Impact sur l'enquête BDF	Explications
Autoconsommation	1 et 2	-2,6		La CN chiffre l'autoconsommation des ménages et l'ajoute à la consommation des ménages. L'enquête BDF la chiffre également, mais ne l'ajoute pas à la consommation. La définition de l'autoconsommation étant différente, et la chiffrage difficile, pour les deux sources, il est décidé de la retirer du champ de comparaison.
Contrebande de tabac	2	-0,8		La CN corrige le montant des dépenses de tabac déclaré par les ménages pour tenir compte de la contrebande. Considérant que les ménages ne déclarent pas cette contrebande dans l'enquête BDF, il est décidé de la retirer du champ de comparaison.
Loyers imputés	4	-155,8		La CN impute des dépenses de loyers imputés aux ménages propriétaires de leurs logements. Ce concept est propre à la CN, l'enquête BDF calculant des loyers imputés pour les propriétaires de résidences principales, mais ne les ajoutant pas à la consommation des ménages concernés.
Collecte des déchets	4	-3,6		La CN considère que certaines taxes, comme celle des ordures ménagères et du balayage sont de la consommation, contrairement à l'enquête BDF.
Loyers de résidences secondaires	4		-0,7	En CN, les loyers et charges des résidences secondaires sont assimilés aux loyers imputés.
Fraude santé	6	-3,1		La CN corrige le montant des dépenses de santé déclaré par les ménages pour tenir compte de la fraude. Considérant que les ménages ne déclarent pas cette fraude dans l'enquête BDF, il est décidé de la retirer du champ de comparaison.
Indemnités d'assurance-santé	6	-24,2		Pour l'enquête BDF, les indemnités versées par les compagnies d'assurances en santé sont déduites de la consommation des ménages. La CN ne déduit pas ces versements.
Indemnités d'assurance-transport	7	-7,4		Pour l'enquête BDF, les indemnités versées par les compagnies d'assurances en transport sont déduites de la consommation des ménages. La CN ne déduit pas ces versements.
Ventes de véhicules de ménage à ménage	7	+16,2		Dans le cas de la vente d'un véhicule entre deux ménages, la CN ne compte que la marge réalisée par un éventuel intermédiaire, alors que l'enquête BDF comptabilise la dépense du ménage acquéreur comme une consommation.
Certificats d'immatriculations	7	-1,6		L'enquête BDF considère que les certificats d'immatriculation correspondent à des taxes, au même titre que les contraventions, et non à de la consommation. On retire donc cette dépense de la CN.
Education	10	-3,8		La dépense de la CN en éducation marchande n'est pas de bonne qualité en base 2010, en raison de l'absence de sources mobilisables lors du rebasement. La correction apportée tient compte d'une étude réalisée dans la section après le changement de base.
Hébergements pour les séjours de moins de 4 nuitées	11		+1,6	Pour l'enquête BDF seules les nuitées effectuées au cours d'un séjour de 4 nuitées ou plus sont comptabilisées. La CN compte toutes les nuitées, sans distinction de durée du séjour.
SIFIM	12	-9,1		La CN calcule un montant de SIFIM et l'intègre à la consommation des ménages. Ce concept est propre à la CN.
Définition de l'assurance-vie	12	-17,7	-1,0	Les définitions de l'assurance vie étant très différentes pour la CN et BDF, il est décidé d'annuler ces deux montants de consommation.
Définition de l'assurance-dommage	12	+16,8		Pour la CN, la dépense des ménages correspond aux primes et aux suppléments de primes, auxquelles sont retranchées les indemnités. Pour l'enquête BDF, la dépense correspond aux seules primes. Le champ de la CN est donc corrigé.
Cautions immobilières	12		-2,2	L'enquête BDF considère que les cautions versées à la location d'un logement sont de la consommation. Ces dépenses sont neutres pour la CN.
Solde territorial	Dépenses non réparties	-6,8		La CN chiffre la consommation sur le territoire français, alors que l'enquête BDF s'intéresse aux ménages résident en France. Cette dépense correspond au solde territorial, qu'il est impossible de répartir entre les fonctions.
Indemnités d'assurance-logement	Dépenses non réparties	-5,5		Pour l'enquête BDF, les indemnités versées par les compagnies d'assurances en logement sont déduites de la consommation des ménages. La CN ne déduit pas ces versements. Aucune correction ne peut être apportée car on ne connaît pas le partage de ces dépenses entre les fonctions 4 et 5.
Impact total des modifications		-207	-2,3	

After integration of the adjustments the gap is reduced to -16% (figure 4).

Figure 4: Comparison of the estimated amounts of consumption in millions by NA and by the family budget survey, after adjustments, for all the functions

		CN	BdF	Ecart	Structure CN	Structure BDF
Fonc1	Alimentaire	141 211	124 176	-12%	15%	16%
Fonc2	Alcool et tabac	36 734	22 436	-39%	4%	3%
Fonc3	Habillement	44 857	38 041	-15%	5%	5%
Fonc4	Logement	120 670	117 418	-3%	13%	16%
Fonc5	Equipement du logement	56 897	44 546	-22%	6%	6%
Fonc6	Santé	18 676	13 653	-27%	2%	2%
Fonc7	Transports	159 406	133 416	-16%	17%	18%
Fonc8	Communications	33 682	25 099	-25%	4%	3%
Fonc9	Loisirs et culture	97 873	63 643	-35%	11%	8%
Fonc10	Education	5 674	5 000	-12%	1%	1%
Fonc11	Hotels, cafés et restaurants	71 372	61 301	-14%	8%	8%
Fonc12	Autres biens et services	125 724	106 479	-15%	14%	14%
	Autres dépenses non réparties	- 12 364	1 299			
<b>Total</b>		<b>900 412</b>	<b>756 507</b>	<b>-16%</b>	<b>100%</b>	<b>100%</b>

**A few possible ways have been identified of explaining the 16% residual gap:**

a) Private purchases between households, apart from vehicles

Expenditure between households is treated differently in national accounting (NA) and the family budget (BDF) survey. In NA, as the balance of purchases between households without an intermediary is nil, no expenditure is allocated. In the family budget survey, households declare all their expenditure, including purchases of second-hand goods from another household. In actual fact, the consumption should be corrected to take account of this phenomenon. Even so, due to a lack of information, the adjustment can only be made for cars and motorcycles, for an amount of €16.2bn. For other consumer durables (furniture, electrical appliances, etc.) or semi-durable goods (clothing, footwear, books, toys, etc.), adjustment has not been possible.

b) Under-declaration of certain expenditure with negative connotations in the family budget survey

Certain expenditure with negative connotations (for example tobacco or alcoholic beverages) is probably underestimated by the family budget survey as households are reluctant to declare it.

c) Expenditure away from home for stays of more than 4 nights (excluding accommodation)

The expenditure incurred during stays of more than 4 nights away from home, in France or abroad, are not entered in the booklet, but in a specific part of the questionnaire. As far as possible, households are asked to defer the completion of the questionnaires to a period of one week without a stay away from home of more than 4 nights. When this is impossible, the expenditure is counted as expenditure linked to "stays away from home" and is not broken down into as many items as usual.

d) Small and large repairs and maintenance jobs on the dwelling

The method of recording small jobs is not the same in the sources. For the family budget survey, repairs and regular maintenance of the dwelling correspond to expenses of less than €200. For NA, whether or not they are recorded in consumption depends on the type of expenditure (breakdown between final consumption, intermediate consumption and investment) and the expenditure corresponds to certain pre-defined items, such as paint,

wallpaper, wooden panels, etc. This difference in concept can lead to substantial differences in the expenditure figures.

In addition, the recoverable charges for co-ownership dwellings sometimes correspond to maintenance work or small jobs. In NA, the expenditure relating to maintenance is included in household consumption and broken down by product (cf. remark on function 044).

In view of the results, it seems difficult to use the family budget survey to establish levels of consumption. On the other hand, as the consumption structures after treatment are close, the family budget survey can be used to complete the national accounting data by analysing structures by category of household or for budget structures at a more detailed level than those defined by the national accounts.

- 7) For COICOP items for which retail sales data is used, provide a table showing the retail sales figures and their conversion into NA results. This table should show the different adjustments made (adjustments for non-observed retail sales, for retail sales other than for HFCE, for HFCE outside the retail trade system, for definitions and concepts, and for balancing).
- 8) If retail trade survey data is used, explain how the part of consumption that is not purchased from retailers is estimated. Similarly, explain how the part of retail sales for final consumption that is not purchased by households is estimated.
- 9) Explain the coverage of internet sales within the retail trade survey data and any necessary adjustments for this type of sales within the estimation of HFCE.

Within household consumption expenditure, so-called “tradable” consumption represents a large proportion. It includes the purchase by households of any goods passing through commercial distribution channels. It therefore excludes market and administered services (with the exception of repair services for goods purchased by households, which are considered as trade), self-consumption, purchases in the shadow economy, repairs to and maintenance of the dwelling, as well as water, gas and electricity.

### **The principle of confrontation**

Tradable consumption, which is the subject of a comparison with retail sales, is defined as the actual final consumption of households that concerns goods that are not "self-consumed" and repair services, at the acquisition price excluding VAT.

The household final consumption that is included in the supply and use balances (ERE) has been estimated by a variety of methods. Some of these methods take the standpoint of the purchaser, households, or the funder, general government. Other methods consist of estimating final consumption by identifying the products most likely to be part of it (specific calculations, breakdown of the domestic market).

The annual business survey system includes a substantial section devoted to trading enterprises. In addition to the accounting data common to all enterprises, the questionnaires specific to the trade sectors include questions on the breakdown of their turnover to a detailed level of products in a classification that is different to the one used in the supply and use balances. The tool that is used to compare household final consumption with the sales of products intended for consumption ("products-sectors" transition) takes the standpoint of those who supply the products to consumers, that is to say not the producers but the sellers. The latter are mainly enterprises specialised in retail trade. The data on retail enterprises are included in the conversion to national-accounts format as part of the compilation of the

national accounts of non-financial enterprises. As a result, the retail sales in the “products-sectors” transition have undergone the ordinary treatments of the ESANE system and the conversion to national-accounts format specific to retail enterprises. They include in particular the treatment of taxes on specific products (alcohol, petroleum products, etc.) and the effects of adjustments for absence, and they are corrected for tax fraud.

The comparison of the results of the two approaches is facilitated by the fact that retailers' sales are, thanks to the annual sectoral business survey (ESA), broken down by product. The confrontation can then take place, not on an aggregate of the consumption, but at a relatively detailed level of products.

The procedure of compiling the goods and services accounts itself does not allow the evaluations of final consumption taken from retail sales to be used directly, due notably to differences in classification with the supply and use balances. This is why the method followed is formally presented as a "confrontation" between the valuations initially appearing in the supply and use balances and those coming from retail sales, at the level of detail of the latter. However, when compiling the accounts for the benchmark year and after confrontation with the level determined by other sources of household consumption, the value provided by the retail source has sometimes been used (mainly for food products). The amount use for the tradable consumption is broken down in the supply and use balances, since the choice is made to disseminate the final consumption at this level of detail (or an even more detailed level).

Following this confrontation, the level of certain products for the year 2010 was fixed based on data from retail sales after treatment and corrections. The table below details the amounts concerned per function.

In millions of Euros	Tradable consumption excl. tax	VAT	Tradable consumption (including tax TVA)	% of actual consumption
<b>Household consumption expenditure</b>	151,299	20,454	171,753	15.9
func.01 Food products and non-alcoholic beverages	43,088	2,336	45,424	32.4
func.02 Alcoholic beverages and tobacco	0	0	0	0
func.03 Clothing and footwear	352	68	420	0.9
func.04 Dwelling	2,479	307	2,786	1.0
func.05 Equipment for dwelling	18,992	3,438	22,430	40.1
func.06 Health	0	0	0	0
func.07 Transport	25,741	4,884	30,625	20.9
func.08 Communications	0	0	0	0
func.09 Leisure and culture	37,129	4,998	42,127	43.2
func.10 Education	0	0	0	0
func.11 Hotels, cafés and restaurants	550	30	580	0.8
func.12 Other goods and				

services func.15 Territorial balance	22,967 0	4,394 0	27,360 0	20.8 0
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For products for which retail sales are not used, the level was fixed using different sources. These are described in 5.7.2.

For the current year estimates, the confrontation is also performed (except for the provisional account, for which there is no information from the business statistics): this leads to converging on the changes obtained by the two approaches for each level of tradable consumption.

### **Retailers taking part in trade**

Enterprises whose main activity is retail sales, as defined in division 47 of the NAF rev.2, form the great majority of enterprises supplying consumer goods to households. However, they are not alone: it happens that enterprises with a different main activity to retail sales also exercise it as a secondary activity. This is certainly the case for wholesale enterprises and wholesalers on a fee or contract basis (division 46 of the NAF rev.2). But it can happen that enterprises whose main activity is in agriculture or manufacturing industry, or service providers, have a secondary activity that falls within division 47. Households also purchase consumer goods that fall within the realm of craft activities, which, although they have some similarities with the retail trade, do not belong to the trade activities in the activity classifications: this applies to cooked meat producer/traders and bakers/baker-confectioners. Finally, it should be remembered that the “product-sector” transition on consumption also includes “retail trade and repair of motor vehicles”. In total, to cover all the enterprises liable to be involved, either as primary or a secondary activity, in retail sales, the "products-sector" transition classification contains 60 activities designated as "sectors", where enterprises are classified according to their main activity:

- 50 “retail trade” sectors;
- 3 “retail trade and repair of motor vehicle” sectors;
- 4 commercial craft activity sectors;
- 3 other sectors: wholesalers including those on a fee or contract basis, producers of goods, (other) service providers.

The table below contains the list of the 60 sectors with the NAF correspondence:

Sector title	NAF code
Retail sales, with the exception of motor vehicles and motorcycles	
Retail sales in non-specialised stores	
Retail sales in non-specialised stores with food, beverages or tobacco predominating (6 sectors)	47.11
Other retail sales in non-specialised stores (2 sectors)	47.19
Retail sale of food, beverages and tobacco in stores (7 sectors)	47.2
Retail sale of automotive fuel in stores (1 sector)	47.3
Retail sale of information and communication equipment in specialised stores (3 sectors)	47.4
Retail sale of other household equipment in specialised stores (7 sectors)	47.5
Retail sale of cultural and recreation goods in specialised stores (5 sectors)	47.6
Retail sale of other goods in specialised stores (12 sectors)	47.7
Retail sale via stalls and markets (3 sectors)	47.8
Retail trade not in stores, stalls or markets	
Retail sale via mail order houses or via Internet (2 sectors)	47.91
Sundry retail trade not in stores, stalls or markets (including door to door sale, and vending machine sale) (2 sectors)	47.99
Maintenance and repair of motor vehicles (2 sectors)	45.2
Sale, maintenance and repair of motorcycles (1 sector)	45.4
Commercial-type craft activities	
Artisanal cooked meats production and trade (1 sector)	10.13B
Artisanal bakery and baker-confectionery	
Other sectors	
Wholesalers, including on a fee or contract basis (1 sector)	10.71B, 10.71C, 10.71D
Industry sector (1 sector)	
Other service providers (1 sector)	46

### **Determination of retail sales and treatment to enable comparison**

Once all the "sectors" liable to sell products for intended for household final consumption have been identified, it is possible to evaluate their retail sales of final consumption products. For the enterprises in the retail sales and repair of household goods sectors, there is a double breakdown of their turnover:

- first of all, it is broken down by activity<sup>1</sup>: their activity in retail sales excluding repairs to motor vehicles and motorcycles is then separated from the other activities;

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<sup>1</sup>

- the portion of their turnover accounted for by retail trading - which may potentially cover several detailed retail activities - is broken down by product sold, using a classification that contains approximately 200 products and is roughly in line with the French product classification (CPF).

To construct a "product-sector" bridge table, the portion of the turnover accounted for retail sales excluding repairs to motor vehicles and motorcycles, is eliminated. What remains are the retail sales of the products sold and repair services, in a product classification.

Enterprises in the craft sector provide their turnover by activity in the NAF rev.2: the assumption is made that these sectors of activity only make their sales on the products that constitute their main activity. For enterprises in the other sectors, only the portion of the turnover corresponding to retail sales is retained: this turnover is allocated to the product of their main activity.

Some final treatments are necessary to make the comparison between traded consumption and retail sales.

The first consists of checking that the data on the sales side are really consistent with what is on the traded consumption side, and making adjustments if it is found to be necessary. Two particular cases need to be mentioned in this respect:

- certain retail traders declare commission instead of declaring the amount of their sales whereas these are not second-hand goods: it is then necessary to reconstitute the sales (tobacco, newspapers, fuel); this is done using adjustment coefficients that have not changed since base 1995<sup>1</sup>;
- in contrast, on transactions involving second-hand goods, the supply and use balances record the margins taken by retail traders, whereas the latter declare the entire amount of the sale: an adjustment is necessary (as for second-hand cars for example).

The detailed product classification in which retail enterprises' turnover is broken down is not considered reliable enough for the comparison with the supply and use balance consumption to take place within this framework. An intermediate classification of 41 products has therefore been put together.

Finally, it is necessary to take account of the fact that not all retail sales made by traders are necessarily to end consumers. It happens, clearly, that for various reasons, craftspeople or tradespeople purchase supplies in ordinary shops - supermarkets or small stores. This behaviour is usually seen among unincorporated enterprises.

The consumption is obtained by applying a sales-to-consumption conversion rate (using

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<sup>1</sup>

The commission rates used are:

- 13% for vehicles (new cars, second-hand cars, caravans and trailers);
- 10% for motorcycles;
- 8% for fuels and lubricants;
- 8% for gross tobacco discounts and 6% for net tobacco discounts;
- 5.9% for furniture and bedding;
- 10% for electrical appliances and hi-fi;
- 18% for newspapers.

allocation keys on the 41 products). This rate enables different conceptual treatments to be performed at the same time (existing good, intermediate consumption, GFCF, undeclared working, and tobacco smuggling). This conversion rate was estimated in the benchmark year, by comparing the levels of sales of the retail trade division to the consumption amounts of the household consumption section.

Remark on internet sales: The annual surveys used have a section on "form of sales", in which enterprises must separate their in-store sales from their internet sales. This section shows that generally a very large majority of internet sales are made by pure players (who are therefore in the mail order sector). Multi-channel sales are growing, but remain in the minority. The exploitation of this section of the survey also enables a sector/form of sales matrix to be determined, which is re-assessed each time the base changes, in order to estimate sales by form using the sales by sector. On the other hand, as enterprises based abroad do not fall within the ESANE scope, their sales are not taken into account in the retail sales figures drawn from the business statistics. However, many sources used by the national accounts cover sales with all internet sales: this is notably the case for panel research firm GfK for household goods and books.

Table for final account 2010 (in millions of Euros)

FORMS OF SALES										
INCOME	Retail sales	Craft activities	Retail trade and repair of motor vehicles	Wholesalers, incl. on a fee or contract basis	Retail sales of other sectors	Spontaneous sales total	Enterprises' intermediate consumption, adjustment for existing goods, reclassification of products	Household intermediate consumption	Undeclared work with collusion, fraud and smuggling	Tradable consumption ex VAT
Bread, cakes	3,946	10,267	0	4	129	14,346	-1,061	-5	0	13,279
Fruits and vegetables	15,099	7	0	221	12	15,339	6,176	-7	0	21,507
Meat and meat products	25,578	1,585	11	201	248	27,623	2,731	-44	0	30,310
Fish, crustaceans and molluscs	4,545	7	0	38	0	4,590	3,125	-9	0	7,706
<b>TOTAL FRESH FOOD PRODUCTS</b>	<b>49,168</b>	<b>11865</b>	<b>11</b>	<b>464</b>	<b>388</b>	<b>61,897</b>	<b>10,970</b>	<b>-65</b>	<b>0</b>	<b>72,802</b>
Chocolate, confectionery	3,294	329	2	18	5	3,649	3,049	-9	0	6,689
wines, liqueurs and aperitifs	12,956	148	1	318	122	13,546	-1,194	-14	0	12,338
Soft drinks, ciders and beers	9,029	111	1	123	269	9,532	965	-14	0	10,483

Groceries, other food products	66,216	293	1	385	482	67,377	-23,253	-17	0	44,107
<b>TOTAL OTHER FOOD PRODUCTS</b>	<b>91,495</b>	<b>881</b>	<b>5</b>	<b>845</b>	<b>879</b>	<b>94,104</b>	<b>-20,433</b>	<b>-54</b>	<b>0</b>	<b>73,617</b>
Tobacco and cigarettes	5,673	2	1	263	5,491	11,431	3,360	0	724	15,515
<b>TOTAL FOOD, BEVERAGES AND TOBACCO</b>	<b>146,336</b>	<b>12,749</b>	<b>16</b>	<b>1,572</b>	<b>6,758</b>	<b>167,432</b>	<b>-6,103</b>	<b>-119</b>	<b>724</b>	<b>161,934</b>
Tyres	30	0	2,821	10	8	2,870	-765	-14	0	2,091
Spare parts and equipment for motor vehicles	890	0	17,187	205	241	18,523	-3,854	-21	0	14,648
Sale and repair of motorcycles	32	0	3,184	2	0	3,219	-863	0	87	2,443
Fuels and lubricants	30,966	1	1,974	1,291	1,243	35,474	-4,584	-74	0	30,817
<b>TOTAL MOTOR VEHICLE-RELATED PRODUCTS</b>	<b>31,918</b>	<b>1</b>	<b>25,167</b>	<b>1,509</b>	<b>1,492</b>	<b>60,086</b>	<b>-10,066</b>	<b>-109</b>	<b>87</b>	<b>49,998</b>
Pharmaceuticals	35,359	0	0	95	455	35,909	641	-13	0	36,537
Medical and orthopaedic equipment	2,608	0	0	33	291	2,932	511	0	0	3,443
<b>TOTAL PHARMACY</b>	<b>37,967</b>	<b>0</b>	<b>0</b>	<b>129</b>	<b>746</b>	<b>38,841</b>	<b>1,152</b>	<b>-13</b>	<b>0</b>	<b>39,980</b>
Clothing	36,136	1	0	588	379	37,104	-8,183	-2	0	28,919
Footwear	7,559	0	0	74	54	7,687	-321	-1	0	7,365
Leather goods, luggage	2,301	0	0	8	119	2,428	-116	0	0	2,312
Perfume and cosmetics	14,772	0	0	160	733	15,666	-280	-10	0	15,376
Optics and photography	6,589	0	0	21	143	6,753	-1,112	-1	0	5,640
Watches and clocks, jewellery	4,271	0	0	44	91	4,405	-14	-9	0	4,382
<b>TOTAL PERSONAL GOODS</b>	<b>71,627</b>	<b>1</b>	<b>0</b>	<b>894</b>	<b>1,519</b>	<b>74,042</b>	<b>-10,025</b>	<b>-23</b>	<b>0</b>	<b>63,994</b>
Furniture, bedding	15,398	0	0	41	202	15,641	-3,846	-3	0	11,792
Household equipment	8,776	45	0	81	130	9,032	-1,921	-447	0	6,664

Electrical appliances	9,800	0	0	81	435	10,316	-2,096	-46	0	8,174
Brown goods	6,650	0	0	47	215	6,911	-1,101	-25	0	5,785
Personal computers and telephones	10,558	0	4	247	4,457	15,265	-4,884	-24	0	10,357
Household cleaning materials	5,707	0	0	36	21	5,763	-1,528	-298	0	3,937
Soft furnishings and household linen	3,603	0	0	15	122	3,739	-897	-2	0	2,840
Floor and wall coverings	2,325	0	0	363	86	2,774	-1,322	-269	0	1,183
Hardware, DIY, paint	15,059	0	43	1,250	648	17,000	-6,531	-1,662	0	8,807
Plants, flowers, seeds, pets, etc.	7,278	0	0	161	235	7,674	-343	-168	0	7,163
Books, newspapers, stationery	8,490	29	0	118	4,439	13,076	-185	-3	0	12,887
Sale and repair of bicycles	861	0	76	0	5	941	-106	0	0	835
Sports and recreation	8,822	0	8	25	310	9,166	-1,529	-2	0	7,636
Games and toys	2,904	0	0	0	25	2,929	129	0	0	3,058
Other non-food products	8,597	2	1	60	2,722	11,382	-8,347	0	0	3,035
Coal and fuels	4,645	0	28	5,465	324	10,462	-3,947	-15	0	6,500
<b>TOTAL OTHER NON-FOOD PRODUCTS</b>	<b>119,472</b>	<b>77</b>	<b>160</b>	<b>7,988</b>	<b>14,376</b>	<b>142,073</b>	<b>-38,455</b>	<b>-2,966</b>	<b>0</b>	<b>100,653</b>
<b>TOTAL NON-FOOD</b>	<b>260,984</b>	<b>79</b>	<b>25,327</b>	<b>10,520</b>	<b>18,133</b>	<b>315,043</b>	<b>-57,394</b>	<b>-3,110</b>	<b>87</b>	<b>254,625</b>
Second-hand private cars	11	0	25,467	483	519	26,479	-17,980	0	0	8,499
New private cars	1	0	30,206	621	621	31,449	-7,820	0	0	23,630
Caravans, trailers	0	0	1,660	33	75	1,768	-294	-3	0	1,471
Maintenance and repair of motor vehicles	52	0	9,897	67	654	10,670	-2,001	0	1631	10,300
<b>TOTAL MOTOR VEHICLES</b>	<b>65</b>	<b>0</b>	<b>67,229</b>	<b>1,205</b>	<b>1,869</b>	<b>70,367</b>	<b>-28,095</b>	<b>-3</b>	<b>1631</b>	<b>43,900</b>
<b>TOTAL FOOD, NON-FOOD AND MOTOR VEHICLES</b>	<b>407,385</b>	<b>12,827</b>	<b>92,572</b>	<b>13,296</b>	<b>26,760</b>	<b>552,841</b>	<b>-91,592</b>	<b>-3,233</b>	<b>2,442</b>	<b>460,459</b>

10) For COICOP items for which other sources than HBS and retail sales is used, provide a table showing the figures from the sources and their conversion into NA results. For individual COICOP items this can also be shown and described in Section 5.7.3 “Detailed calculations by COICOP items”.

The sources and methods are described in paragraph 5.7.2.2. The bridge table between sources and national accounting date corresponds to the process table, the retail sales data being recorded in the “combined data” aggregate.

- 11) Describe how the purchases of residents abroad are identified and included and how the purchases of non-residents on the domestic territory are identified and excluded from HFCE estimates.

In national accounting, the total economy is defined in terms of resident units. For household consumption, applying this principle amounts to evaluating the expenditure relating to all the goods and services that give rise to consumption by households that reside in the French economic territory, even if it is realised outside that territory. This definition poses a problem as regards the indicators available to evaluate household consumption in the accounts. Indeed, it is not measured by surveys of resident households that could then declare what they consume, including abroad, but principally, by activity indicators coming from resident enterprises that only correspond to the French economic territory and which also encompass the purchases made by non-resident consumers. Furthermore, within the accounting framework of the supply and use balances (ERE), the approaches based on resident units for output and household consumption are not compatible. For example, the output of hotels corresponds to sales made by hotels situated in the French economic territory whether the guests are French or not. In order to balance the supply and use balance, a household consumption indicator based on the same concept has to be used.

To arrive at the resident household consumption, an overall adjustment (i.e. with no repercussions on the breakdown by product) is applied for all goods and services. This is known as the territorial balance or the “tourist balance”. It corresponds to the difference between the purchases of residents outside the economic territory and purchases of non-residents inside the economic territory. These purchases are determined by the Banque de France using estimates from the balance of payments.

The purchases of residents outside the economic territory are established based on two surveys (organised jointly with the Directorate General for competitiveness, industry and services (DGCIS) of the Ministry of the Economy, Finance and Employment). The first, conducted with 20,000 French households, covers tourism-type expenditure. The second, conducted with 10,000 internet users (business leaders, executives and liberal professions), measures professional expenditure.

The survey of foreign travellers (80,000 questionnaires a year) carried out in airports and ports, on motorway rest areas and major international railways routes provide information for the expenditure of non-residents in France symmetrical to that of the two surveys carried out concerning residents' expenditure outside the territory.

- 12) Describe any adjustments made to HFCE to exclude items treated as intermediate consumption of producers of illegal activities; references may be made to detailed descriptions in Chapter 7, Section 5.7.3 or other sections of the Inventory.  
Cf. Chapter 7.

- 13) Provide information on the consistency in the service charge for pensions between the value given under output and that included within HFCE.  
Not applicable in France.

### **5.7.3. Detailed calculations by COICOP items**

1. Explain all specific sources, methods or adjustments used when estimating data for the individual COICOP items.  
See above.
2. Regarding purchases of vehicles, if car scrap schemes exist(ed), demonstrate how the recommendations of the GNI Committee on the Treatment of Car Scrap Schemes (GNIC/232) are followed. Also, if list prices are used in the estimation, demonstrate how they are corrected to arrive at the transaction price (taking into account discounts, accessories, etc.).

Different car scrap schemes were implemented in France in 1992, then 1994-1996 and 2009-2010. An ecological bonus/malus system has also been in place since 2008; it is intended to encourage people to buy clean vehicles without the condition of already owning a vehicle.

In accordance with ESA 2010, these car scrap schemes are considered as subsidies on products, whilst the ecological malus is considered as a tax on products. As a result, household consumption expenditure is reduced (bonuses generally weigh heavier than maluses). The car scrap schemes and the ecological malus/bonus scheme only have an impact on consumption expenditure, but not volume; they change the price of the vehicles.

The price index used is the consumer price index which takes catalogue prices into account, and the effects of the bonus/malus applied to certain vehicles. This price index is therefore altered as it does not record the car scrap bonuses, as these are paid to purchasers after the event and subject to conditions.

3. Regarding insurance services, describe how the "other non-life insurance" output is allocated to use (final consumption/IC/exports) by analysing the insurance products and identifying the user sectors. In the case of unincorporated enterprises in the household sector: how is the allocation of the "other non-life insurance" output to final consumption and IC calculated? (see recommendation of the GNI Committee on Insurance Measurement, CPNB/336 and GNIC/015 – Rev. 1)

The household consumption expenditure on non-life insurance corresponds to the premiums and taxes paid by policyholders, the premium supplements (interest received by insurers on premiums invested) from which the claims paid by insurance companies and changes in reserves are deducted.

The consumption of non-life insurance services is valued as part of the supply and use balance of insurance services). The household final consumption expenditure corresponds to a part of the uses, decided by applying the allocation key to final consumption and intermediate consumption. The method is described in the chapter on the production approach (cf. 3.17).

4. Regarding the estimate for expenditure on software, including games, explain if this estimate is made independently of the output estimates? (Household Budget Survey, Retail Trade Statistics, see recommendation of the GNI Committee on Software Measurement, CPNB/313 and GNIC/015 – Rev. 1)

The annual business surveys (ESA) provide information on the breakdown of the turnover by type of customer ("enterprises and competitive public sector", "general and local government" or "individual customers"). The sector-product manager has used this information to determine the benchmark level for software consumption

(GJ62Z). This method was only used when preparing the levels for the benchmark year.

## **5.8. NPISH final consumption expenditure**

- 1) This section may refer back to Chapter 3 for the output estimates, but should explain also how final consumption expenditure is derived from output.
- 2) Provide a table showing final consumption expenditure by different types of NPISH and indicating the main sources and the estimation method (direct annual surveys or administrative data; other sources, extrapolation of benchmark calculations, model based estimates etc.) used.
- 3) Provide an excerpt from the Process Tables showing the values derived from individual categories of sources and values of conceptual, exhaustiveness (N1-N7) and balancing adjustments.
- 4) Provide information on the register of NPISH. If this register is not complete, explain the adjustments made for under-coverage. Describe how the distinction of NPISH from market producer, from the households sector, from government sector and from NPI serving businesses is made. Reference should be made to the criteria given in ESA 2010 §§3.30-3.36.
- 5) Describe in detail the data sources and estimation methods used to measure final consumption expenditure by different types of NPISH. Provide numerical information showing the components for the calculation of NPISH final consumption expenditure by types of NPISH. In particular:
  - a) Describe in detail how output of NPISH is estimated (reference may be made to Chapter 3);
  - b) Describe how receipts from sales of products and own-account capital formation are identified and estimated;
  - c) Describe how social transfers in kind (see ESA 2010 §3.97(b) are identified and estimated;
  - d) Describe how consumption of fixed capital (CFC) is estimated and how complete coverage of CFC is ensured (reference may be made to the detailed description in section 4.12).

The final consumption expenditure of non-profit institutions serving households (NPISH) concerns only the non-market services that they produce: see non-market output – of products – in Table 3.26. It is simply equal to their production of non-market services, minus the payments made by households when these services are provided (partial payments).

Due to a lack of information, the market products NPISH purchase to make them directly available to households for final consumption, via social transfers in kind, are not included in their final consumption expenditure. In the product supply and use balances, the products in question are therefore implicitly part of the final consumption expenditure of households themselves.

The group is the subject of an overall evaluation, whose sources and methods are set out

in the section devoted to GDP calculated by the production approach (section M of Chapter 3, and components of value added in Chapter 4).

Table 5.5: Final consumption expenditure of NPISH.

P - Education	3,485
Q - Human health and social work activities	19,689
R - Arts, entertainment and recreation	5,724
S - Other service activities	10,725
<b>Total consumption expenditure</b>	<b>39,623</b>

### 5.9. Government final consumption expenditure

1. This section may refer back to Chapter 3 for the output estimates, but should explain also how final consumption expenditure is derived from output.
2. Provide separate descriptions for each of the subsectors of the general government sector and, if relevant, for units identified as borderline cases and classified to the government sector.
3. Provide a table showing final consumption expenditure by subsectors of the general government sector and, if relevant, for units identified as borderline cases and classified to the government sector, and indicating the main source and the estimation method (direct annual surveys or administrative data; other sources, model based estimates etc.) used.
4. Provide an excerpt from the Process Tables showing the values derived from individual categories of sources and values of conceptual, exhaustiveness and balancing adjustments.
5. Provide information on the register of general government units. Describe how the delimitation of the general government sector in line with ESA 2010 rules is ensured. Add a list of units identified as borderline cases and classified to the government sector.
6. Describe in detail the data sources and estimation methods used to measure final consumption expenditure by subsectors of the general government sector and, if relevant, for units identified as borderline cases and classified to the government sector. Provide numerical information showing the components for the calculation of general government final consumption expenditure by subsectors of the general government sector and, if relevant, for units identified as borderline cases and classified to the government sector. In particular:
  - a) Describe in detail how output of general government is estimated (reference may be made to Chapter 3 and Chapter 4);
  - b) In the case that not all general government units are covered by data sources, describe how estimates are made for the missing units;

- c) Describe how capital expenditures are identified and excluded from final consumption;
- d) Describe how receipts from sales of products and own-account capital formation (P11, P131, P12 - see ESA 2010 §3.98(a)) are identified and estimated;
- e) Describe how social transfers in kind (see ESA 2010 §3.98(b)) are identified and estimated;
- f) Describe how CFC is estimated and how complete coverage of CFC is ensured (reference may be made to the detailed description in section 4.12).

### **1. Sources enabling government final consumption expenditure to be evaluated**

The sources enabling the final consumption expenditure of general government to be evaluated are the same as those used to calculate their output and value added. It should be remembered that there are two main types of organisation of general government accounting information:

- The State for which expenditure, whether current or capital, is recorded in the budget accounting where expenses are centralised by ministry, and in each ministry, by chapter, article and paragraph. As far as revenue is concerned, it appears in the “Development of budget revenue”, a document that includes revenue lines that go into a very fine degree of detail.
- Other public bodies either apply the general accounting plan, or an adapted version of that plan and present an expenditure account (class 6) and an income account (class 7).

### **2. The components of general government consumption expenditure**

General government has two types of final consumption expenditure:

- expenditure on market goods and services which it transfers to households in the form of social transfers in kind;
- expenditure on non-market services which it produces itself, and which is also partially transferred to households. Only the part of non-market services that does not give rise to a payment on the part of users – in the form of residual sales or partial payments – is included in general government final consumption expenditure.

Government's output for own final use is not concerned (its counterpart being gross fixed capital formation).

### **3. The final consumption expenditure of general government in market goods and services**

This applies to social security bodies. This expenditure encompasses:

- total or partial reimbursements, by the social security schemes, of goods or services already paid for by households. This means healthcare reimbursements concerning medicines, glasses or optical items, medical and dental treatments, hospital stays medical apparatus or equipment, etc. In principle, their counterpart is a social security reimbursement (D.6311);
- the coverage of market goods or services, which concerns patient transport, home helps or medical assistance in the home, family housing benefit. These are social security benefits in kind (D.6312).

Whether expenses are reimbursed or paid directly, this expenditure applies only to social security bodies. It comes mainly from the basic health schemes, and more particularly the National Health Insurance Administration (CNAM). The CNAL's accounting plan provides a great deal of detail on the goods and services in question. The classification favours an approach focused on the products concerned rather than the mode of payment (direct or reimbursed).

General government expenditure on goods and services also concerns social assistance benefits in kind (D.6313) made by government departments other than social security bodies. They may be funded by miscellaneous central government agencies (ODAC). Thus, the benefits funded by two organisations, the national housing benefit fund (FNAL) and the national housing fund (FNH) cover participations in households' dwelling expenditure; In the case of local government, these are covered by the Departments. This expenditure is mainly for the benefit of the disabled, the elderly and children.

#### **4. The final consumption expenditure of general government in non-market services**

In the simplest case, when government entities produce a service without any financing by users, the final consumption expenditure of general government in non-market services is equal to the output of those services. This applies to most collective services.

In some cases, when they provide non-market services, government entities receive incidental revenues from sales. It is then possible to distinguish two situations.

In a first case, the revenue from sales concerns a product that is not a result of the main activity of the non-market government producer, without it being possible for all that to identify a distinct production unit for that product in the form of an establishment. It is in this way that government derives revenue from the dissemination of publications. These are therefore secondary products of a non-market activity. In the terminology of the French national accounts, this revenue is known as "residual sales" (incidental sales - in ESA 2010)

In a second case, the revenue is directly connected to the non-market activity of the government entities. This concerns, for example, museum entrance fees, tuition fees, etc. In particular, when exercising their role as regulators granting authorisations or issuing permits or licences, government entities receive revenue which, under certain conditions, is treated not as taxes, but as a consideration for the provision of a service. In the terminology of the French national accounts, this revenue is known as "partial payments".

The difference between the two situations is mainly instrumental:

- in the case of an incidental sale, the product concerned is the subject of a transfer: it does not appear in the supply and use balance for the non-market activity with which it is connected, but in the supply and use balance of the products in the category to which it belongs; to obtain the output for non-market services, the amount of the incidental sales must be subtracted from the output of the market activity;
- in the case of a partial payment, the income from the sale appears in the uses of the

5. non-market product, most often in the form of household final consumption expenditure, but other uses can also be envisaged; unlike the previous situation, here the output of the non-market products is equal to the output of the activity that generates them.

From the standpoint of the valuation of the final consumption expenditure of general

government, however, both situations lead to the same result: this expenditure, concerning non-market products, is equal to the non-market output of the activity in question, minus the purchases relating to these products, whether those purchases are recorded under incidental sales or partial payments.

### **The State**

The development of the State's budget revenue allows a certain number of flows to be identified that correspond to the payment of services rendered. The most important ones concern:

- stamp duty,
- the salaries of mortgage registrars.

### **Other government entities**

For other government entities, the revenue derived from sales is known from accounts 70 and 75. Account 70 concerns mainly sales of goods and the provision of services. As for account 75, only transactions corresponding to fees for patents and licences, copyright royalties and income from buildings are included in sales of services.

The sales of miscellaneous central government agencies (ODACs) essentially concern those of research organisations such as the National Centre for Space Studies (CNES), the Atomic Energy Commission (CEA), the National Centre for Scientific Research (CNRS). Other significant sales are made by educational institutions such as universities and the “grandes écoles” higher education institutes.

The largest sales made by local government take place as part of general administration and concern refuse collection and real estate rentals. After that come the sales of the non-market education sector: education services (after-school supervised study), revenue from school canteen and boarding. Finally, substantial amounts of revenue come from the sale of admission tickets for sports arenas and swimming pools and sales related to social work activities.

As for social security organisations (social insurance schemes and hospitals), virtually all their sales concern medical service. These sales are billed by hospital, at a price lower than the production cost of the service rendered. This mainly concerns households' contribution to accommodation costs and the hospitalisation charge (contribution to board and lodging). Sales of non-market services by other government entities are negligible.

## Final consumption expenditure of general government.

C – Manufactured products	28 902
H - Transport and warehousing	2 570
I – Accommodation and food services	554
J -	564
L – Real estate activities	13 892
M -	10 199
N - Activities of administrative and support services	654
O - Public administration and defence; compulsory social security	176 704
P - Education	89 717
Q – Human health and social work	135 206
R - Arts, entertainment and recreation	16 370
S – Other service activities	412
T – Activities of households	439
<b>Total consumption expenditure</b>	<b>476 183</b>

### 5.10. Acquisitions less disposals of produced fixed assets

#### 5.10.1. Overview

- 1) Descriptions could be given by NACE sections and/or by type of asset.
- 2) Provide a table showing acquisitions less disposals of fixed assets by NACE sections (A\*21) and types of assets.

In the design of the accounts, GFCF is largely determined as a result of the confrontation of supplies and uses by product (supply and use balances), based on the data available by institutional sector. GFCF is therefore fundamentally valued using an “institutional sectors x products” approach, and then broken down into branches and assets using bridge tables.

- 3) Provide a table showing additions to the value of non-produced non-financial assets by types of assets (including major improvements to land - see ESA 2010 §3.128 - and costs of ownership transfer on non-produced assets, like land, contracts, leases and licences – see ESA 2010 §3.127(6))
- 4) Provide a table showing acquisitions less disposals of fixed assets by institutional sectors (S11-S15) and types of assets.
- 5) Describe the distinction made between resident and non-resident units acquiring produced and non-produced non-financial assets in the domestic economy and how this is treated within the country's national accounts. Reference can be made to Chapter 8 to show consistency with the related property income flows.

It is considered that assets acquired by non-residents are acquired via corporations or quasi-corporations owned by these non-residents.

- 6) Present an excerpt from the Process Tables showing the values derived from individual categories of sources and values of conceptual, exhaustiveness (N1-N7) and balancing adjustments.

#### 5.10.2. Main data sources and their conversion to national accounts results

1. Describe the general approach to estimate GFCF, in particular with regard to the following aspects:
  - a) Describe the main data sources used in the estimation of GFCF, reference can be made to Chapter 10.
  - b) Are all transactions of all sectors in new and existing produced fixed assets covered?
  - c) Describe the sources used to estimate the different types of additions to the value of non-produced non-financial assets and any adjustments needed. The description and figures provided should be consistent with the Process Tables.
  - d) Describe how the 'one year' rule (ESA 2010 §3.124) is applied and how small tools for production purposes is excluded (ESA 2010 §§3.130a(1) and 3.89f(1)). (Reference may be made to the description in sections 3.2 or 5.2.)

GFCF is estimated using a dual approach: on the one hand, total GFCF by institutional sector is known or can be estimated based on balance sheet information for each institutional unit. On the other hand, GFCF by product can be deducted from the supply and use balances when they are carried out at a sufficiently detailed level, which enables supplies of products to be identified that virtually exclusively give rise to GFCF.

The two complementary approaches are confronted. In addition, GFCF is the subject of a certain number of adjustments when the expenditure and income approaches to calculating GDP are not spontaneously coherent (see chapter 6).

Households' GFCF (excluding unincorporated enterprises) is estimated according a product-based approach. It encompasses GFCF of construction (part of which is output for own final use) as well as all the costs relating to real estate (legal and accounting activities, architectural activities, buying and selling of own real estate). The estimation of the GFCF of households in construction products (excluding output for own final use) is based on construction output and the information provided by construction enterprises on the breakdown of their turnover by customer type. The division of construction work paid for by households into major work/GFCF on the one hand and maintenance work/final or intermediate consumption on the other is carried out using an allocation key resulting from the family budget survey.

The estimation of GFCF in related costs is also based on turnover at a detailed level in the classification as well as the breakdown of turnover by customer type, which is known from the structural enterprise data. GFCF of legal and accounting activities for households corresponds essentially to transfer duties, which are known.

GFCF of general government is mainly estimated based on data from the tax authority (DGFIP), whether it is the State accounts or accounting data more or less in line with the general accounting plan. In the first case, the GFCF is identified as category of budget expenditure (part 5). In the second case, the accounting data is treated in much the same way as that of non-financial enterprises.

Adjustments are made to take account of the output for own final use of general government in R&D, software and databases (see section 5.10.3) as well as government's acquisitions by

financial leasing.

Due to a lack of information, the GFCF of NPISH is estimated on the basis of hypotheses put together in particular from observations made in the general government sector, which vary from branch to branch. The amount of investments is assumed to be linked to the activity of NPISH, measured from the payroll. The amount of NPISH's' GFCF for each branch is therefore estimated from the amount of the payroll of the branch and the investment/payroll ratio observed for government entities in the same branch.

The tangible GFCF of non-financial enterprises is estimated from enterprises' tax returns, more precisely the fixed assets section, completed by the annual sectoral surveys (ESA), the two sources of information being combined in the annual business statistics compilation system (ESANE). Acquisitions and disposals during restructuring operations and acquisitions and disposals of land are excluded from the estimate. A treatment is carried out so that disposals of assets from one enterprise to another are valued at the same price in the accounts of both enterprises (and thus have a neutral impact on the estimation of GFCF).

This estimate must then be adjusted to bring it into line with the national accounts; indeed, it includes a portion of intangible GFCF (related costs), but not financial leasing or improvement or development of land. Finally, it does not cover the scope of agricultural enterprises and social work activities.

The intangible GFCF, however, is based on a product approach: information on sales at a very detailed level allow the products giving rise to GFCF to be identified. The estimation of GFCF in software, R&D and databases is the subject of more precise tracking (see section 5.10.3).

#### **5.10.3. Detailed estimation methods used by AN code**

- 1) Describe in detail all specific sources, estimation methods and adjustments used for estimating figures for the different types of produced fixed assets.
- 2) Outline how the recommendations from the GNP Committee on the Consumption of Fixed Capital on Roads, Bridges etc. (see GNIC 011) concerning the estimates of GFCF are applied. Detailed description of the measures taken to address all recommendations should be provided in the section 4.12 of the Inventory.
- 3) If car scrap schemes exist(ed), demonstrate how the recommendations of the GNI Committee on the Treatment of Car Scrap Schemes (GNIC/232) are followed. Also, if list prices are used in the estimation, demonstrate how they are corrected to arrive at the transaction price (taking into account discounts, accessories, etc.).

Different car scrap schemes were implemented in France in 1992, then 1994-1996 and 2009-2010. An ecological bonus/malus system has also been in place since 2008; it is intended to encourage people to buy clean vehicles without the condition of already owning a vehicle. In accordance with ESA 2010, these car scrap schemes have been considered as subsidies on products, whilst the ecological malus is considered as a tax on products. As a result, household consumption expenditure on the one hand and the GFCF of enterprises on the other are reduced (bonuses generally weigh heavier than maluses). The car scrap schemes and the ecological malus/bonus scheme only have an impact on consumption expenditure and GFCF, but not on volume; they change the price of the vehicles.

The price indices traditionally used (CPI, industrial production price index) must be modified as they do not record these allowances, bonuses and maluses, as they are paid to purchasers after the event.

GFCF in the motor industry is obtained by confronting the number of non-household vehicle registrations, the supplies and uses in the motor industry (the main uses being known thanks to other sources) and more generally by taking into account the tangible GFCF of enterprises.

- 4) Provide information on how land improvements (AN.1123) are included in the GFCF estimates as given by ESA 2010 §3.128.

Major improvements made to land must be recorded in GFCF. In the investor-based approach, it has been considered that the improvement of land encompasses mainly irrigation systems for agricultural land and polders. In the product-based approach, improvements made to land are taken into account in GFCF of construction.

The GFCF estimated by product, after confrontation with the estimates of FBCF by institutional sector, is broken down by assets, using a bridge table: due to the difficulty in separating these land improvements from the housing and construction of other residential buildings or civil engineering assets, they have been classified in these three assets.

- 5) Provide information on how costs of ownership transfer on non-produced assets (AN.116) are included in the GFCF estimates as given by ESA2010 §3.127(6).

GFCF is estimated by confronting two sets of information.

On the one hand, GFCF is estimated according to the product classification at a detailed level, by confronting supplies and uses. Transfer costs are recorded under products relating to the installation of machinery and equipment (C33Z), development of building projects (F41A), real estate agencies (L68A2), legal and accounting activities (M69Z), architectural and engineering activities, technical testing and analysis activities (M71Z). The allocation of this GFCF to the institutional sectors is carried out by using the responses of the enterprises that produce these services to the ESA questionnaires on the breakdown of their turnover by customer type.

On the other hand, the intangible GFCF of non-financial enterprises is estimated from the tax returns of the enterprises that invest. In business accounting, the acquisition costs of fixed assets (products 68 and 69) can, at the enterprise's choice (PCG (general accounting plan), Art. 321-10.1), either be included in the acquisition cost of the fixed asset or posted directly to charges. An adjustment said to be for "related costs" is then made to record these charges as GFCF. The other transfer costs (architectural activity, engineering, technical studies, in particular) do not benefit from the option of being recorded as charges. They are therefore counted, in tax returns, in the tangible fixed assets to which they are attached.

Once the confrontation between these sources has been done, the GFCF by products corresponding to the transfer costs is allocated to assets. Due to the difficulty of breaking down transfer costs by assets (in particular, the between land and construction), all the costs are allocated to the construction asset.

- 6) Describe the steps taken to ensure that:
  - α) R&D by specialised commercial research laboratories and institutes is valued at revenues from sales, contracts, commissions, fees, etc.
  - β) R&D for use within the same enterprise is valued on the basis of the estimated basic prices that would be paid if the research were sub-contracted commercially or, alternatively, at total production costs (plus a mark-up – except for non-market producers – for net operating surplus or mixed income)

- χ) R&D by government units and non-profit research institutes is valued as the sum of costs of production? Are revenues from the sale of R&D by non-market producers of R&D recorded as revenues from secondary market output.

Alternatively, reference may be made to the description in the section 3.19 of the Inventory. Cf. Chapter 3.

7. Provide numerical evidence that the templates agreed by the Task Force on Capitalisation of Research and Development in National Accounts (DMES 2012/11/08) are used to calculate output and GFCF in R&D. Alternatively reference may be made to the numerical evidence in the section 3.19 of the Inventory.
8. Provide information on how the own-account production of software is excluded from the estimates of own-account R&D. Alternatively reference may be made to the description in the section 3.19 of the Inventory.
9. Describe how the recommendations of the Task Force on the Capitalisation of R&D in National Accounts (DMES 2012/11/08) are applied.
  - a) Is R&D acquired to be used solely in the creation of further products of R&D (in other words R&D services subcontracted by one R&D institutional unit to another R&D institutional unit) recorded as intermediate consumption?
  - b) Is all expenditure by government on freely available R&D recorded as GFCF (unless the requirement is not fulfilled that this R&D is intended for use in the production for more than one year)?
  - c) Is the net operating surplus of market producers of own-account R&D derived as mark-up including unsuccessful R&D?
  - d) Are the service life estimates used in the calculations of R&D based on dedicated surveys or other relevant research information, including information of other countries with comparable market/industry characteristics? In case, where such information is not available, is a single average service life of 10 years retained?
  - e) Provide information on whether geometric depreciation function is used as a reference method in the calculation of CFC of R&D or if alternative method is used.

In ESA 2010, produced assets extend to the results of research and development activities (R&D). As a result, R&D expenditure is now recorded as gross fixed capital formation (GFCF) with the exception of R&D subcontracting (purchase of R&D by an enterprise producing R&D), which remains intermediate consumption.

### **The case of market entities**

A market entity can either purchase an R&D service from an external entity or it can perform R&D activities in-house.

In the second case, the expenditure incurred for R&D constitutes output for own final use in base 2010: the expenditure in question covers, of course, the compensation of employees exercising an R&D activity, but also the purchase of equipment, buildings, etc. In principle, the corresponding output for own final use should be equal to the sum of these expenses plus a mark-up corresponding to the net operating surplus derived from the R&D activities.

However, as the analysis of the accounts of enterprises selling R&D did not reveal a significantly positive net operating surplus, the mark-up used for enterprises with an R&D

output for own final use is nil. It should be noted that this market output may be produced by non-market entities (less than 0.5% of market R&D, however).

### **The case of non-market entities**

As for market entities incurring in-house R&D expenses, ESA 2010 leads us to consider that the expenditure of non-market entities for their R&D activities constitute an output for own final use, also estimated via the production costs, which include not only intermediate consumption but also consumption of fixed capital (CFC).

The recording of R&D expenditure as GFCF leads to the appearance of CFC in assets derived from R&D, which then increases the non-market output of the non-market enterprises, with as its counterpart an increase in the collective consumption of general government. This CFC is calculated via the perpetual inventory method, whilst supposing that the assets have log-normal mortality functions and that straight-lined depreciation is applied. The lifetime fixed for assets derived from R&D is conventionally 10 years.

### **Practical estimation of R&D**

The practical estimation of GFCF in R&D used data from the R&D survey conducted by the Ministry of Higher Education and Research (MESR), which has been available since the beginning of the 1960s. This survey, which is carried out with both enterprises and government entities, allows R&D expenditure to be isolated according to whether it is purchased externally or carried out in-house<sup>2</sup>. The R&D survey, however, does not cover the activities of lecturer-researchers in universities: an adjustment is made to take account of this component.

10. Describe how GFCF of software (AN.11731) is delimited and how the recommendations from the GNP Committee on Software Measurement (CPNB/313 and GNIC/015-Rev.1) relating to GFCF are followed in practice. In particular, the following aspects should be included:
  - a) Are the statistical data sources for the estimates on software clearly identified? If hardware consultancy services are included in the basic statistical data, are they identified and excluded?
  - b) Delimitation of GFCF and intermediate consumption:

Is all expenditure (purchasing, renting, leasing or licensing) for packaged and custom software which is used for > 1 year treated as GFCF? Does this include expenditure for planning, design, programming, change of ownership, installation and testing? Are expenditure on extension or changes to the software system (e.g. new facilities, replacement of parts of the software code, move of the software to another platform) capitalised, too? Is subcontracting of software services (custom software integrated in other software) treated as intermediate consumption?

Is maintenance and repair of software treated as intermediate consumption?

Are purchases of software to be used in production for < 1 year included in intermediate consumption?
  - c) Is secondary production of software by non-software industries (non NACE 62) included in output of computer software (marketed and own-account GFCF)?
  - d) Is a separate estimate for software produced for own-account GFCF been made?

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<sup>2</sup> Cf. the [survey forms](#) on the website of the Ministry of Higher Education and Research.

e) Does the estimate for own-account GFCF of software include labour costs, intermediate consumption, CFC and a mark-up for net operating surplus? (which conceptually corresponds to valuation at basic prices)

f) Measurement of labour costs for own-account GFCF of software:

(1) Non-NACE 62 (secondary production by non-software industries):

Is the estimate of own-account GFCF of software derived from labour input data? If the data are from statistics on ISCO categories 251 Software and applications developers and analysts and 252 Database and network professionals: is an adjustment factor applied to estimate the time spent on software development (maximum 50%)? Is the level of compensation of employees appropriate? Is the average wage of staff in NACE 62 (Computer programming, consultancy and related activities) used as a proxy for the average wages in own-account GFCF of software?

(2) NACE 62 (Computer programming, consultancy and related activities):

Does own-account GFCF of NACE 62 include an estimate for the time spent on the development of originals of packaged software and of software to be used only by the company itself ("real" own-account)? Does own-account GFCF of NACE 62 exclude time spent on the development of custom software to be sold?

f) Does non-market output also include CFC of software?

GFCF of software has been entirely re-estimated in base 2010. Furthermore, since ESA 2010 (§3.127), the constitution of databases is also considered as GFCF.

GFCF of software and databases is estimated using a similar method, estimating, on the one hand, the GFCF giving rise to a market transaction, on the other hand, that produced by enterprises in-house and recorded as output for own final use.

### **Market GFCF of software and databases**

Market GFCF of software and databases is determined using a very detailed level in the product classification - "programming, consultancy and related activities" (NACE 62), "information service activities" (NACE 63) and "publishing activities" (NACE 58) - and deciding which of the services sold fall within GFCF and which intermediate consumption, for the enterprises that purchase them.<sup>3</sup>

These sales are classified using data from the annual sectoral surveys (ESA): these surveys enable enterprises' turnover to be broken down according to the different products sold. The market output of software and databases by enterprises whose main activity is not classified in 62, 58 or 63 is therefore also taken into account. Subcontracting, known thanks to the same ESA surveys, is excluded and recorded as IC.

### **Software and database production for own final use**

The method proposed in base 2010 for measuring software and database production for own final use was inspired by the OECD Handbook on Deriving Capital Measures of Intellectual Property Products. This method is based on the payrolls of professions likely to produce software. An average time spent on the production of software for own final use (at most 50% of the working time) is associated with each profession. The list of professions was supplemented to take account of database production for own final use<sup>3</sup>. Then, on the basis of

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<sup>3</sup> The codes used for GFCF are the following:

6201Z01 "assistance technique pour le développement », 6201Z02 « développement de banques de données, stockage de données », 6201Z03 « conception et développement de supports informatiques enregistrés », 6201Z04 « projets, conception et

the payroll of people engaged in production for own final use, a production for own final use figure to take account of social contributions, equipment costs (intermediate costs and consumption of fixed capital) and gross operating surplus is extrapolated. The payroll of the professions in question is measured on the basis of the Annual Declaration of Social Data (DADS) in the private and public sectors.

Software and database assets are taken into account when calculating the consumption of fixed capital of non-commercial producers.<sup>4</sup>

11. Describe how the recommendations from the GNP Committee on Entertainment, Literary and Artistic Originals (AN.1174) (see GNIC/010 and GNIC/022) are followed in practice. In particular, the following aspects should be included:

- a) Do items considered for GFCF of entertainment, literary or artistic originals meet the following general criteria:
  - i. coverage by copyright
  - ii. original being the end product (primary artistic intent)
  - iii. compliance with capitalisation criteria (> 1 year life length)
  - iv. not covered elsewhere in national accounts (e.g. as software originals or valuables)?
- b) Do originals include:
  - i. films (for cinema, DVD, video and TV)
  - ii. TV and radio stock programmes (documentaries, drama, music, arts, history, education)
  - iii. published literary work (books, pamphlets) with separate copyright
  - iv. musical works (composition and performance)
  - v. photographs and images (if they satisfy the criteria above)

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développements de logiciel au forfait », 6201Z09 « autres services informatiques et développements de logiciel », 6201Z0A « autres activités de réalisation de logiciels (développement de programme) », 6202A « conseil en système et logiciel informatiques », 6202A00 « conseil en système et logiciel informatiques s.a.i », 6202A11 « ingénierie de système informatique », 6202A13 « intégration de système », 6202A21 « conseil en systèmes d'information », 6202A22 « conseil en développement de logiciels », 6202A23 « assistance technique pour le développement », 6202AA0 « conseil en système informatique », 6202AB0 « autres activités de réalisation de logiciels (conseil en développement de logiciels) », 6202A00 « conseil en systèmes et logiciels informatique », 6202B01 « projets, conception et développement de logiciels au forfait, intégration de système »

- 6311Z00 « traitement de données, hébergement et activités connexes s.a.i », 6311Z011 « saisie et préparation de données », 6311ZA6 « traitement de données et hébergement », 6311Z00 « traitement de données, hébergement et activités connexes », 6312Z « portail internet »

- 58.12Z « Édition de répertoires et de fichiers d'adresses »; 5829A01 « Edition de logiciel système », 5829A02 « Edition en ligne de logiciels système et de réseau », 5829A03 « Redevances sur commercialisation de progiciels systèmes et utilitaires », 5829B01 « édition de logiciels outils de développement et de langage », 5829B09 « réalisation d'autres logiciel standard », 5829C01 « éditions de logiciels applicatifs », 5829C025 « éditions en ligne de logiciels applicatifs », 5829C03 « redevances sur commercialisation de progiciels applicatifs »

<sup>4</sup>

The documentation and archiving frameworks of the private and public sectors were adopted.

- vi. maps (if they satisfy the criteria above)?
- c) Are the following items excluded from GFCF of originals:
  - i. sections and unedited shots of films (that do not satisfy the copyright criterion)
  - ii. TV and radio flow programmes (e.g. news and sports programmes, advertisement) (usually used < 1 year)
  - iii. originals for newspaper and magazine articles (usually used <1 year)
  - iv. advertising jingles (usually used < 1 year)
  - v. technical and architectural drawings and prototypes (mostly not with primary artistic intent)
  - vi. paintings, sculptures, antiques (recorded under valuables)?
- d) Are there any provisions in place in order to avoid double-counting of GFCF of originals (one or several originals embedded in the production of another original as for example a piece of music used in a film)? Is the handling of embedded royalty payments described?
- e) Is the valuation method for the different types of originals clearly described (e.g. valuation by purchase prices of originals or similar originals, production costs of originals, discounted net present value of future receipts)?
- f) Is the value of films, TV and radio stock programmes measured by production costs including a mark-up for operating surplus?
- g) Is the value of literature, music and photographic/image originals measured by the net present value of royalty flows using the formula  $W_j = H_j * (1 + r_j - i_j)$ , (with  $j$ =index of year,  $W$ =present value,  $H$ =sum of royalties paid,  $r$ =growth rate of royalties,  $i$ =interest rate)? Are  $r$  and  $i$  calculated from a single year or by a moving average over up to 5 years?
- h) Are entertainment, literary and artistic originals depreciated with a model which leads to fast depreciation in the early years of the originals' lives? Is the service life set between 5 and 10 years?
- i) Are payments for licenses to use entertainment, literary and artistic originals recorded as sales and purchases of services (ESA 2010 §3.86)?

The estimation methods used are specific to these assets. It is difficult to use accounting data in a method similar to that used for the tangible component because the intangible assets entered by enterprises in their own accounts include many more items than those entered in the field of fixed assets in the national accounts. In general, the method used corresponds more to the product approach. In particular, it is based on the observation that the creators of the intangible assets in question, be they individuals or enterprises, use them personally in order to derive income from them.

#### *Audio-visual assets*

As audio-visual activities are divided into categories in the French classification of activities

(NAF), it is easy to identify the enterprises that, in ESANE, carry out a main activity of this type. Not all of their activity leads to the creation of assets: the production of advertising or commercial films and the production of one-time television broadcasts are not likely to generate revenues after their initial use, and therefore they do not contribute to the creation of assets. Moreover, there are numerous and often complex organisational methods.

Despite this diversity, a creation of intangible assets that conforms to the definition given by ESA 2010 can be identified, with the intangible assets created by enterprises within the scope of their own activity. Rather than using balance sheet data, it is more convenient to measure GFCF in intangible assets by the capitalised production costs of these enterprises, which is shown on the income statement, and which certainly only concerns these assets. This production is included in the standard ESANE account, and is one of the components of the production of products of the resources — uses balance concerned.

The international flows relating to these products relate to the income generated rather than the sales and purchases of the assets themselves. It is therefore assumed that intangible audio-visual assets are not imported or exported.

Therefore, GFCF in intangible assets of an audio-visual nature is measured by the capitalised production of the companies whose main activity is one of the audio-visual activities.

#### *Other literary and artistic assets*

The production process for literary and artistic assets is simpler outside the audio-visual field. Independent producers – authors and artists – play a significant role in it. Their activity is covered by the usual statistical sources for enterprises, under “Non-commercial profit”.

However, their capitalised production is not identified and furthermore, their GFCF cannot be measured by balance sheet data. And to an even greater extent than for the audio-visual sector, foreign trade – in the assets themselves – may be neglected.

Finally, literary and artistic assets result from the activities of two types of producers:

- publishers, which remunerate authors on a lump sum basis and which retain ownership of the original work;
- independent authors who personally exploit their own rights.

GFCF made by publishers is measured by their capitalised production, as for the audio-visual sector. On the other hand, the measurement of GFCF for own-account production carried out by independent artists and authors does not appear in the enterprise data compiled in ESANE. Finally, there are statistics concerning copyright paid by publishers and collecting societies. To put it very simply, the production and corresponding GFCF are considered to be equal to the annual revenues from copyright.

### **5.11. Changes in inventories**

- 1) Provide a table showing for the reference year changes in inventories (and possibly also stocks at the beginning and at the end of the year) by different categories and indicating the main source and the estimation method used.
- 2) Provide an excerpt from the Process Tables showing the values derived from individual categories of sources and values of conceptual, exhaustiveness and balancing adjustments.

- 3) Describe the sources available for estimating changes in inventories. Do the sources completely cover all categories of inventories as listed in ESA 2010 §3.148? Is any part of changes in inventories calculated as a residual?
- 4) Describe, if necessary, the steps taken to ensure an adequate transition from these sources to national accounts definitions.
- 5) Describe how recurrent losses of inventories are identified and recorded in the calculation of changes in inventories?
- 6) Explain how the valuation of inventories at the time of entering the inventories or of withdrawal from the inventories is ensured, using basic prices for own-produced goods and purchasers' prices for goods for resale. If the practical methods used for estimating changes in inventories are in line with those mentioned in ESA 2010 §3.153, describe these methods in detail, including numerical evidence and comment on the following particular aspects:
  - a) Are the estimates made by types of inventories?
  - b) Are they based on knowledge or founded assumption about the valuation method used in private accounting?
  - c) Are stock holding periods appropriately taken into account?
  - d) Are appropriate price indices used?
- 7) Describe the steps taken to exclude holding gains/losses from changes in inventories.
- 8) Demonstrate the consistent recording of changes in inventories and holding gains/losses in the production, income and expenditure estimates.  
Cf. chapter 3.

#### **5.12. Acquisitions less disposals of valuables**

- 1) Provide a table showing acquisitions less disposals of valuables by the different categories (AN.131-AN.133) as listed and described in ESA 2010 §§3.155-3.156.
- 2) Describe in detail the main data sources and the estimation methods (i.e. direct annual surveys or administrative data; other sources, model based estimates etc.) used. In particular, describe the distinctions made in the following cases:
  - a) The acquisition or disposal of these types of goods by jewellers and art dealers;
  - b) The acquisition or disposal of such goods by households;
  - c) The acquisition or disposal of non-monetary gold, silver, etc. by central banks and other financial intermediaries;
  - d) The acquisition or disposal of these goods by enterprises whose principal or secondary activity does not involve the production of or trade in such types of goods;
  - e) The acquisition or disposal of these types of goods by museums.
- 3) Describe how the change in ownership criteria is assessed for transactions in precious stones and metals (AN.131) traded on international bullion markets.

- 4) Provide an excerpt from the Process Tables showing the values derived from individual categories of sources and values of conceptual, exhaustiveness and balancing adjustments.
- 5) If particular categories of valuables are not explicitly identified describe how GNI neutral treatment is ensured and how cross border trade in valuables is made consistent with acquisitions less disposals of valuables.

Valuables are not subject to an in-depth statistical investigation in the French national accounts. 5.367 Only households acquire items of value. It has been decided to limit valuables to goods made of precious metals and goldsmiths' wares. In this way, an arbitrary amount has been deducted from the initial estimate of household consumption on the corresponding products and allocated to the acquisition, net of disposals, of valuables. This amount subsequently changes in the same way as household consumption. It totalled €681 million in 2010.

### 5.3. Exports of goods

1. Provide a table showing intra-EU and extra-EU exports of goods.

The following table provides a geographical breakdown of exports of goods according to their final geographical destination (data in millions of euros).

Total exports	390,583
Intra-EU exports	233,257
Extra-EU exports	157,326

2. Describe the compilation of balance of payments data on intra-EU and extra-EU trade, their completeness with respect to the coverage of all exports of goods and any adjustments needed. The information provided should be consistent with the process tables.

French Customs data on trade in goods and Banque de France surveys of international merchanting are the two main sources used for estimating the trade in goods included in the current account. Customs data are subject to the following corrections and adjustments:

- 2) trade without payment but with the transfer of economic ownership (corresponding primarily to donations) is entered under subsidiary income;
  - 3) trade without payment and without transfer of ownership primarily concerns movements of goods for the purpose of processing or repair, which must be classified under services.
  - 4) bunkering and victualling are added to form the “general merchandise” line.
  - 5) international merchanting transactions are also added under goods but distinguished from general merchandise.
3. Describe the steps taken to record exports of goods at change of economic ownership irrespective of corresponding physical movement (except for the cases specified in ESA 2010 §3.163).

Exports of goods are primarily based on customs statistics. However, several adjustments need to be made when transferring customs statistics into the accounts:

- 6) customs data prior to 2014 are corrected in order to take account of the fact that, in the national accounts base 2010, Mayotte forms part of French territory. In fact, in customs statistics, Mayotte is only treated in the same way as all departments of Metropolitan France from 2014 onwards.
- 7) Exports of military equipment are not included in the special trade statistics transmitted to INSEE. They are also transmitted by the customs and are sent separately.
- 8) exports of goods corresponding to victualling are added because they are not included in the special trade statistics. They are also revealed by customs information.
- 9) coordinated manufacturing by Airbus, which corresponds to minor manufacturing operations, is withdrawn. The amounts are also provided by Customs.
- 10) Amounts below the Intrastat threshold are estimated. The overall amount is provided by customs.
- 11) Exports corresponding to merchanting are also added to special trade. Their overall estimation is based on balance of payments data.
- 12) The proportion of special trade corresponding to handwork is withdrawn. The net amounts are added. Their overall estimation is based on balance of payments data.

Certain goods are reclassified as services. These are goods relating to:

1. publishing;
2. the production of cinematographic films, video and television programmes; sound recording and musical publication;
3. architectural and engineering activities; technical inspection and analysis activities;
4. other specialised scientific and technical activities;
5. creative, artistic and entertainment activities;
6. library, museum and other cultural archives;
7. other service activities.

4. Describe the steps taken to ensure the correct scope of exports of goods, in particular with respect to:

- a) deliveries between affiliated enterprises in the case when the establishment receiving the goods assumes responsibility for making the decisions about the levels of supply and prices at which their output is delivered to the market (see ESA 2010 §3.163)?

Deliveries between affiliated enterprises involving a resident unit and a non-resident unit are included in the special foreign trade statistics. The goods actually cross the border. No special processing is therefore required.

- b) cases without goods crossing the country's frontier as listed in ESA 2010 §3.164;

The international merchanting of goods is indeed taken into account. The overall amount adopted is based on balance of payments data.

Goods produced by resident units operating in international waters and sold directly abroad to non-residents, transport equipment and other mobile equipment without a fixed hitch point, as well as goods lost or destroyed after the transfer of ownership has occurred but before the goods have crossed the border, are not taken into account.

- c) the exclusion of goods sent abroad for processing without change of ownership (see ESA 2010 §1.51f);

The foreign trade statistics drawn up according to the special trade method and transmitted by customs include outwork-related trade. For compliance with ESA 2010, two processing operations are carried out. Firstly, the amounts for outwork-related trade are withdrawn from the customs statistics. The customs send us these amounts separately. Secondly, the amounts relating to industrial services are added. The overall amount is provided by the balance of payments (sources: DDG and ECEIS). The breakdown of data from the ECEIS survey is based on customs data.

- d) the transactions listed in ESA 2010 §3.165;

Goods corresponding to cases a, b, c, d, f, g and i are accounted for under special trade. Live cattle crossing the border are not accounted for (case e). Transmissions under the threshold are corrected (case l).

- e) the exclusion of all the cases listed in ESA 2010 §3.166.

Goods corresponding to cases a, c, d are not accounted for in the foreign trade statistics and are therefore excluded from exports.

Goods in transit that have been lost or destroyed after crossing the border but before the change of ownership has taken place are included in exports.

5. Are the recommendations from the GNP Committee Task Force on Intrastat (CPNB 203) related to exhaustiveness being continuously applied? In particular:

- a) Are nationally compiled foreign trade data for the country compared with those from trade partners?

Customs data are subject to international comparisons.

- b) Are domestic output and imports compared with domestic use and exports in supply and use tables?

Production and imports are set against final jobs in the supply and use balance during each account production campaign.

**5.14. Exports of services**

- 1) Provide a table showing intra-EU and extra-EU exports of services.

Total exports	129,885
Intra-EU exports	74,642
Extra-EU exports	55,243

- 2) Describe the compilation of balance of payments data on both intra-EU and extra-EU export of services, its completeness with respect to the coverage of all exports of

services and any adjustments needed. The information provided should be consistent with the process tables.

The trade in services shown in the current account is primarily based on three main sources: the declarations made by direct general declarants (DDG), the Additional Survey of International Trade in Services (ECEIS) and the Reports on Transactions (CRT).

3) Describe the steps taken to record exports of services at the time they are rendered (see ESA 2010, §3.177)?

Exports of services are based primarily on balance of payments data, which are recorded on an accrual basis.

4) Describe the steps taken to ensure the correct scope of exports of services, in particular with respect to:

a) the transactions listed in ESA 2010, §§3.174, 3.175 and 3.176;

Exports of transport services are estimated on the basis of balance of payments data. These data are reprocessed to ensure their estimates are consistent with ESA 2010. Space transportation exports are, however, valued separately on the basis of other administrative sources.

Exports associated with the repair of goods are based on balance of payments data, in which they are accounted for on a net basis.

Financial services take account of both the explicit service and the implicit service.

The expenditure of non-resident business people and tourists are estimated on the basis of the “travel” line in the balance of payments.

A proportion of exports of services are estimated on the basis of customs data, with goods associated with the following activities being reclassified as services:

8. publishing;
9. the production of cinematographic films, video and television programmes; sound recording and musical publication;
10. architectural and engineering activities; technical inspection and analysis activities;
11. other specialised scientific and technical activities;
12. creative, artistic and entertainment activities;
13. library, museum and other cultural archives;

other service activities.

Exports of health services are estimated on the basis of the accounting data of social security administrations.

FISIM exports are estimated on the basis of banking data.

Exports of USITS are estimated by INSEE.

b) the fee charged for the processing service (see ESA 2010, §1.51f);

Goods sent for processing abroad are recorded on a net basis. For exports, only the industrial service corresponding to the subcontractor's margin is accounted for.

c) construction services carried out abroad for a period of less than a year;

Construction services are not accounted for under exports of services.

d) exports of insurance and pension services measured (see ESA 2010, §§3.74 and 3.173;

Insurance services provided by residents for non-residents are evaluated on the basis of balance of payments data.

e) exports of FISIM; exports of FISIM from resident financial institutions to non-resident financial institutions should not be recorded.

The content of foreign trade in FISIM integrates trade in margins between resident financial institutions and non-financial institutions.

5) Are the recommendations from the GNP Committee on Software Measurement (CPNB/313 and GNIC 015-Rev.1) relating to international trade being continuously applied as regards exports? In particular:

a) Has an attempt been made to identify the software content of the relevant CN codes in the foreign trade statistics?

Balance of payments data are used. They include trade relating in IT services.

b) Are exports of software goods valued at full value rather than the value of the carrier only?

The acquisition costs of licences for the use of computer software are taken into account.

c) Are the data on computer services and royalties and licence fees in the BoP carefully examined to identify any payments related to software?

The expenditures relating to software are entered under IT services.

### 5.15. Imports of goods

1) Provide a table showing intra-EU and extra-EU imports of goods.

Total exports	445,481
Intra-EU exports	257,415
Extra-EU exports	188,066

2) Describe the compilation of balance of payments data on both intra-EU and extra-EU import of goods, their completeness with respect to the coverage of all imports of goods and any adjustments needed. The information provided should be consistent with the process tables. (Reference may be made to Section 5.13 if the sources and methods are the same.)

Customs data on imports of merchandise are the main source used for estimating imports of goods included in the current account. The customs data are subject to the following corrections and adjustments:

13) trade without payment but with the transfer of economic ownership (corresponding primarily to donations) is entered under subsidiary income;

14) trade without payment and without transfer of ownership primarily concerns movements of goods for the purpose of processing or repair, which must be classified under services.

15) bunkering and victualling are added to form the “general merchandise” line.

3. Describe the steps taken to record imports of goods at change of economic ownership irrespective of corresponding physical movement (except for the cases specified in ESA 2010 §3.163)?

Imports of goods are primarily based on customs statistics. However, several adjustments need to be made when transferring customs statistics into the accounts:

14) customs data prior to 2014 are corrected in order to take account of the fact that, in the national accounts base 2010, Mayotte forms part of French territory. In fact, in customs statistics, Mayotte is only treated in the same way as all departments of Metropolitan France from 2014 onwards.

15) Imports of military equipment are not included in the special trade statistics transmitted to INSEE. They are transmitted separately.

16) Imports of goods corresponding to victualling are added as they are not included in the special trade statistics. The flows are calculated on the basis of the last known information in 1996 (Direction Générale de l’Aviation Civile et Comité Central des Armateurs de France).

17) Coordinated manufacturing by Airbus is withdrawn. The amounts are also provided by Customs.

18) Amounts below the Intrastat threshold are estimated. The overall amount is provided by customs.

19) The proportion of special trade corresponding to outwork is withdrawn. The net amounts are added. Their overall estimation is based on balance of payments data.

Certain goods are reclassified as services. These are goods relating to:

20) publishing;

21) the production of cinematographic films, video and television programmes; sound recording and musical publication;

22) architectural and engineering activities; technical inspection and analysis activities;

23) other specialised scientific and technical activities;

24) creative, artistic and entertainment activities;

25) library, museum and other cultural archives;

26) other service activities.

Imports relating to tobacco smuggling are estimated by INSEE.

4. Describe the steps taken to ensure the correct scope of imports of goods, in particular with respect to:

a) deliveries between affiliated enterprises in the case when the establishment receiving the goods assumes responsibility for making the decisions about the levels of supply and prices at which their output is delivered for the market (see ESA 2010, §3.163);

Deliveries between affiliated enterprises involving a resident unit and a non-resident unit are included in the special foreign trade statistics. The goods actually cross the border. No special processing is therefore required.

b) cases without goods crossing the country's frontier as listed in ESA 2010, §3.164;

Goods produced by resident units operating in international waters and sold directly abroad to non-residents, transport equipment and other mobile equipment without a fixed hitch point, as well as goods lost or destroyed after the transfer of ownership has occurred but before the goods have crossed the border, are not taken into account.

c) the exclusion of goods sent abroad for processing without change of ownership (see ESA 2010, §1.51f);

The foreign trade statistics drawn up according to the special trade method and transmitted by customs include outwork-related trade. For compliance with ESA 2010, two processing operations are carried out. Firstly, the amounts for outwork-related trade are withdrawn from the customs statistics. The customs send us these amounts separately. Secondly, the amounts relating to industrial services are added. The overall amount is provided by the balance of payments (sources: DDG and ECEIS). The breakdown of data from the ECEIS survey is based on customs data. the transactions listed in ESA 2010, §3.165;

d) Goods corresponding to cases a, b, c, d, f, g and i are accounted for under special trade. Live cattle crossing the border are not accounted for (case e). Imports corresponding to tobacco smuggling (case k), and transmissions below the threshold (case l) are subject to correction.

e) the exclusion of all the cases listed in ESA 2010, §3.166.

Goods corresponding to cases a, c and d are not accounted for in the foreign trade statistics and are therefore excluded from imports.

Goods in transit which are lost or destroyed after crossing the border but after the change of ownership has taken place are accounted for under imports.

6. Are the recommendations from the GNP Committee Task Force on Intrastat (CPNB 203) related to exhaustiveness being continuously applied? In particular:

a) Are nationally compiled foreign trade data for the country compared with those from trade partners?

Customs data are subject to international comparisons.

b) Are domestic output and imports compared with domestic use and exports in supply and use tables?

Output and imports are set against final uses in the supply and use balance during each account production campaign.

## 5.16. Imports of services

1. Provide a table showing intra-EU and extra-EU imports of services.

Total imports	112,596
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Intra-EU imports	72,001
Extra-EU imports	40,596

- 2) Describe the compilation of balance of payments data on both intra-EU and extra-EU import of services, their completeness with respect to the coverage of all imports of services and any adjustments needed. The information provided should be consistent with the process tables. (Reference may be made to Section 5.14 if the sources and methods are the same.)

The trade in services shown in the current account is primarily based on three main sources: the declarations made by direct general declarants (DDG), the Additional Survey of International Trade in Services (ECEIS) and the Reports on Transactions (CRT).

- 3) Describe the steps taken to record imports of services at the time they are rendered (see ESA 2010 §3.177);

Imports of services are based primarily on balance of payments data, which are recorded on an accrual basis.

- 4) Describe the steps taken to ensure the correct scope of imports of services, in particular with respect to:

- a) the transactions listed in ESA 2010 §§3.174- 3.176;

Imports of transport services are estimated on the basis of balance of payments data. These data are reprocessed to ensure their estimates are consistent with ESA 2010.

Repairs are based on balance of payments data, in which they are accounted for on a net basis.

Financial services take account of both the explicit service and the implicit service.

The expenditure of resident business people and tourists are estimated on the basis of the "travel" line in the balance of payments.

However, a proportion of imports of services are estimated on the basis of customs data, with the goods associated with the following activities being reclassified as services:

27. publishing;
28. the production of cinematographic films, video and television programmes; sound recording and musical publication;
29. architectural and engineering activities; technical inspection and analysis activities;
30. other specialised scientific and technical activities;
31. creative, artistic and entertainment activities;
32. library, museum and other cultural archives;
33. other service activities.

Imports of health services are estimated on the basis of data from the social security administrations' account.

Imports of FISIM are estimated on the basis of banking data.

- b) the fee charged for the processing service (see ESA 2010, §1.51f);

Goods imported after processing are recorded on a net basis. Only the industrial service corresponding to the subcontractor's margin is taken into account.

c) construction services carried out by non-resident units for a period of less than a year

Construction services are not accounted for under exports of services.

d) imports of insurance and pension services measured (see ESA 2010 §3.74);

Insurance services provided by residents for non-residents are evaluated on the basis of balance of payments data.

e) imports of FISIM; imports of FISIM from non-resident financial institutions to resident financial institutions should not be recorded.

The content of foreign trade in FISIM integrates trade in margins between resident financial institutions and non-financial institutions.

5) Are the recommendations from the GNP Committee on Software Measurement (CPNB/313 and GNIC 015-Rev.1) relating to international trade being continuously applied as regards exports and imports)? In particular:

a) Has an attempt been made to identify the software content of the relevant CN codes in the foreign trade statistics?

Balance of payments data are used. They include trade relating in IT services.

b) Are the data on computer services and royalties and licence fees in the BoP carefully examined to identify any payments related to software?

The expenditure relating to software is entered under IT services.

## **CHAPTER 6 THE BALANCING OR INTEGRATION PROCEDURE, AND VALIDATING THE ESTIMATES**

(This chapter should be around 25 pages in length)

### **6.1. GDP balancing procedure**

1) Provide overview tables indicating values of components of GDP according to the production, expenditure and income approach before and after balancing and the balancing adjustments made to these components. For the production approach provide information for each NACE section. This information should be consistent with the Process Tables and the information on the balancing adjustments in Chapters 3-5.

As mentioned on several occasions in Chapters 3 to 5, the production and income approaches are closely interlinked to the extent that it would be inappropriate to talk about balancing adjustments between these two approaches.

On the other hand, the expenditure approach is estimated independently of the income and production approaches.

Briefly, the process adopted is as follows:

-The data jointly mobilised by the production and income approaches, supplemented for the purpose of exhaustiveness, provide an estimate of the gross value added of the entire economy.

-These data also provide an estimate of the production of each product, introduced as inputs for the supply and use balance for each product.

-Independently, the data mobilised by the expenditure approach provide an estimate of all final uses at the acquisition price excluding VAT, and also of imports. The supply and use balances are then balanced via intermediate consumptions, by ensuring the consistency of the results with the data from the Table of Intermediate Inputs on the consumption of each branch in each product.

-The GDP excluding VAT resulting from the counterbalancing of the supply and use balances is not automatically equal to the GDP resulting from the income and production approaches. A balancing adjustment is then applied to gross capital formation (€2,949 M in 2010), whose estimation is considered to be less robust than that of foreign trade or final consumption.

-Nevertheless, this balancing adjustment applied to gross capital formation does not reflect all of the balancing adjustments carried out in practice using the expenditure approach. The estimation of certain items of consumption is questionable because survey sources only exist for resident households (consequently providing inadequate coverage of the entire consumption of a product over the national territory, carried out by either residents or non-residents), or administrative sources for turnover that are unclear about what relates to intermediate or final consumption. This situation typically applies to consumption of hotel and restaurant services. In practice, in base 2010, the estimation of final consumption of hotel and restaurant services has been revised significantly upwards (by revising the share of intermediate / final consumption) far upstream of the base 2010 elaboration process, in order to reconcile the expenditure approach with the production and income approaches. But the record of extent specifies that the balancing adjustment was not retained.

-Nor does the expenditure approach need to be strictly based on the production and income approaches. A limited residual balancing adjustment (€302 million in 2010) is consequently applied to the production and income approaches in order to ensure the strict equality of the GDP derived from the three approaches. This balancing adjustment is low enough (0.015% of GDP) for it to be considered that GDP is determined by the production and income approaches.

-What remains is to convert the supply and use balances excluding VAT into supply and use balances including VAT. This work is carried out on the basis of theoretical VAT rates per use and per product provided by the tax specialists of the General Directorate of the French Treasury. It results in VAT-inclusive GDP, which is the final estimate of GDP. The expenditure approach consequently has an impact on the final level of GDP by breaking down the tax-exclusive uses per product and the structure of theoretical VAT rates. It should be noted that the theoretical VAT obtained in this way is clearly higher than the VAT actually collected by the tax authorities. Ultimately, the VAT actually collected is kept in D.211, and the difference between the theoretical VAT and the VAT actually collected is transferred to production.

-Finally, it is noted that the expenditure approach indirectly influences the estimation of GDP via the value added of non-market entities. Indeed, the precise estimation of GFCF per product and asset for sectors S.13 and S.15, via the PIM model applied to GFCF series with different life spans for each product, results in an estimate of the consumption of fixed capital (CFC) for these sectors which is fully passed on to the estimate of their added value and therefore of GDP.

- 2) Provide an overview table showing values of GDP according to each of the approaches before and after balancing and the size of the balancing adjustments made to each approach for the last 5-10 years.

The same balancing method is used every year. The record of balancing adjustments over 5 to 10 years has not been kept. Incidentally, for the accounts published in ESA 2010, the years prior to 2009 have been obtained by backcasting based on the changes of series in ESA 1995 and not by direct estimation. Under these conditions, talking about GDP series prior to balancing would make little sense.

- 3) Please specify which industries/products received the largest balancing adjustments according to each approach of GDP in the last 5-10 years. During this time have any quality improvements changed the distribution of balancing adjustments on industries/products?

The items subject to the largest balancing adjustments are always the same, and correspond to the products and operations with the least accurate sources. This typically concerns investment, which for enterprises is estimated on the basis of the accounting framework of capital assets; however, it is hard to trace all movements concerning capital assets with accuracy, especially in the event of restructuring operations. Final consumption of hotel and restaurant services is also traditionally subject to balancing adjustments during the development of base years.

- 4) Give a general description of the mechanisms in place to balance or integrate the three approaches to GDP. Address the following aspects:

- a) Are all three approaches to GDP used?

Yes. Even if predominance were given to the income and production approaches, the magnitude of the difference between them and the expenditure approach is examined in order to detect any errors in the estimates derived from the production and income approaches. Moreover, the expenditure approach ultimately has an impact on the level of GDP via the transition from VAT-exclusive resource - uses balances to VAT-inclusive resource - uses balances, and the calculation of the CFC of non-market entities.

b) Are the various approaches to GDP produced independently?

The production and income approaches did not develop independently. However, the expenditure approach developed independently of the first two approaches.

c) Is predominance given to one of the approaches? Describe the reasoning behind it.

The predominance given to the production and income approaches arises due to the availability of accounting data for all enterprises and public administrations, without any threshold effect reducing the pertinence of the accounting source (adjustments for exhaustiveness are, however, necessary).

d) How are conceptually balanced items handled within the supply and use tables, i.e. items such as FISIM, insurance, non-market output of central bank, changes in inventories, etc.?

The balancing of resources and uses in the inputs and outputs table is central to the national account production process (cf. above).

e) Explain how exhaustiveness adjustments are applied across the three measures of GDP: are they applied holistically or independently (reference may be made to Chapter 7)?

Exhaustiveness adjustments are primarily applied to the production and income approaches and are applied in a coordinated manner throughout both of these approaches in view of the close links between them.

Some of these adjustments are also applied to the expenditure approach, especially the adjustments for production for own final use, or concealed production whose counterpart is necessarily final household consumption (which applies to the underreporting of activity by health professionals, for example).

f) Explain if there are any limits to what can be revised in the balancing (if so give further details).

In the framework of balancing, the production and value added derived from the production and income approaches can only be revised to very limited extents.

g) Explain if there are any variables not allowed to change at all (if so give further details).

h) Are the final estimates independent of the preliminary and semi-definitive estimates?

Yes, the final estimates are produced independently of the preliminary and semi-definitive estimates. However, the revisions that appear are analysed in detail.

5) Describe the use of the supply and use tables in the process of finalising the annual national accounts estimates. Address the following aspects:

a) Are supply and use tables prepared frequently? When was the most recent version of the supply and use tables prepared?

The input and output tables are central to the production process for each account (including for the quarterly accounts).

- b) Are supply and use tables integrated into annual compilation process or are they only used for backward revisions as their completion is lagging behind in time?

Yes, they are integrated in the annual and even quarterly account production process.

- c) At which level of detail is the compilation and balancing performed?

The supply and use balances are produced in relation to 138 different products for the production of annual accounts.

- d) Outline the sources used for compiling supply and use tables.
- e) Outline how the proper valuation for supply and use tables is ensured.
- f) Outline the consecutive stages of the process of constructing the supply and use tables.
- g) Describe the efforts made to investigate and explain inconsistencies between source data.
- h) Indicate products and areas for which expert knowledge is used in the process of supply and use balancing.
- i) Explain if predominance is given to row or column balancing or if equal weight is given to each dimension.
- j) Describe the level of manual versus automatic balancing.
- k) Are the pre-balancing and the post-balancing data compared systematically and any revisions documented?
- l) Is there a follow-up/documentation of the balancing adjustments made for previous statistical years?
- 6) Specify if there are any other factors that can reduce the adequacy of the balancing, integration and validation procedures.

## 6.2. **Other approaches used to validate GDP**

- 1) Describe if and how all existing sources are used and confronted with each other to validate the data and estimates. Address the following aspects:
- a) Are all available supply-side, demand-side and income-side data confronted with each other?
- b) Are unexplained discrepancies imputed to least firmly based items, based on a judgmental process?
- c) Does the analysis of supply and use tables look at consistency between the different aggregates and how they evolve over time; i.e relationships between compensation of employees and household final consumption expenditure, intermediate consumption and output, etc,
- d) Are administrative data cross-checked with other source data, including the use of quantity-price methods?
- e) Are these cross-checks carried out frequently?

- f) Is there validation against sector accounts?
- 2) Describe any activity undertaken to guarantee or improve the quality of the national accounts.

## **CHAPTER 7 OVERVIEW OF THE ALLOWANCES FOR EXHAUSTIVENESS**

(This chapter should be around 25 pages in length)

### **7.0. Introduction**

#### **7.0.1. Geographical coverage**

The economic territory covered by base 2010 of the national accounts includes, under § 2.05-a) of ESA 2010, the territory of Metropolitan France and French Overseas Departments (DOM: Guadeloupe, French Guiana, Martinique, Reunion and Mayotte). In addition, the definition of the economic territory conforms to the additional information provided in points b) to e) of § 2.05, and to § 2.06 of ESA 2010.

The Overseas Collectivities (COM) do not form part of the economic territory. Admittedly, in some of these territories, military bases (in French Polynesia) or scientific bases (in the French Southern and Arctic Lands) have been established. They are then included in the French economic territory in the capacity of territorial enclaves (ESA 2010, § 2.05-d). The exclusion of the COM from the economic territory conforms to the European Commission's decision of 26 July 1991 (91/450/EEC, Euratom) and to the European Commission regulation 109/2005.

The case of Mayotte requires clarification: Mayotte became a French department in 2011 and only obtained the status of Outermost Region (OR) of the European Union in 2014.

Consequently, Mayotte has only been included in GNI, which is submitted to Eurostat for budgetary needs (with GNI to a large extent determining the apportionment of Member States' contributions to the EU budget), since 2014, and not for the previous years. On the other hand, the national accounting data themselves have included Mayotte throughout the entire period covered by the national accounts (1949 to the present day). Consequently, the economic activity of Mayotte has been incorporated into the estimation of the GDP and GNI published on insee.fr throughout the entire 1949-2015 period.

#### **7.0.2. General approach to exhaustiveness**

The approach to exhaustiveness varies according to the institutional sector in question.

-public accounting data are assumed to report on the entire economic activity of general government;

-similarly, as the financial sector (excluding financial auxiliaries) is supervised very closely by the regulatory bodies, the accounting data available for this sector are supposed to report on all of the activity of financial corporations (excluding auxiliaries);

-no correction on grounds of exhaustiveness is applied to NPISH: their contribution to productive activity is closely monitored by the statistical system because they are always recorded in the administrative registers whenever they employ staff

-non-financial corporations, non-financial unincorporated enterprises and financial auxiliaries, etc.

-household production (excluding owners of unincorporated enterprises) can be defined as the own account production of ... and the production of domestic services.

The adjustments are revised at relatively long intervals, of around 10 years for the main adjustment, i.e. the correction for fraud of units with an existence in law.

## **7.1. Allowances for exhaustiveness in the production approach**

### **7.1.1. Identification of types of non-exhaustiveness (for which adjustments are needed)**

- 1) Show identified areas of absence, evasion and exemption (as defined in Commission Decision 94/168 on exhaustiveness).
- 2) Structure the description in accordance with the types of non-exhaustiveness (N1-N7). Within each type, list and briefly describe the relevant elements of non-exhaustiveness as exemplified below:
  - a) types of non-exhaustiveness for absence because of producers that should have registered but did not (underground producer) (N1), for example producers that fail to register in order to avoid tax and social security obligations (often small producers with turnover which exceed the thresholds above which they should register their income);

This category includes the unobserved activity of entities without an existence in law (due to fiscal and social security fraud), in addition to the employment of services by households that have failed to declare the employment of domestic staff.

- b) types of non-exhaustiveness identified for absence because of illegal producers that fail to register (N2), for example prostitution, drugs and smuggling;

This category includes the production and trafficking of narcotic drugs, and tobacco smuggling. Alcohol smuggling is assumed to be negligible. A large proportion of prostitution activities is assumed to fall outside the scope of output (minors and/or persons residing without authorisation who are forced into prostitution by criminal networks, which can be likened to a form of slavery). The rest of prostitution (unidentifiable as it is carried out under the cover of other activities such as bars and massage parlours) is assumed to be covered by accounting sources and N1 and N6-type adjustments.

- c) types of non-exhaustiveness identified for absence because registered legal persons are not included in statistics (N4), for example if business register is out of date or updating procedures are inadequate, the classification (activity, size or geographic codes) are incorrect, the legal person is excluded from survey frame because its size is below a certain threshold; alternatively reference may be made to the description in section 3.1 of the production approach;

This category includes market activities which are poorly covered by the ESANE source as they are carried out by an entity with special status (often officially non-profit associations or foundations): regional student welfare offices, organisers of horse races, etc. Their activity is reflected in a variety of sources.

- d) types of non-exhaustiveness identified for absence because registered entrepreneurs are not included in statistics (N5), for example the administrative source with lists of registered entrepreneurs may not always pass on complete or up to a date lists to the statistical office or could also be excluded from survey frame because of size threshold or incorrect business register; alternatively reference may be made to the description in section 3.1 of the production approach;

Not applicable to France (there is no threshold below which legally declared units can escape inclusion in the statistical sources).

- e) types of non-exhaustiveness identified for evasion because of mis-reporting by producers (N6), for example gross output under-reported, intermediate consumption over-reported in order to evade or reduce income tax, VAT or social security contributions. This often involves the maintenance of two sets of books, payments of envelope salaries which are recorded as intermediate consumption, payments in cash without receipts and VAT fraud. Describe any pattern identified in the area of mis-reporting (for example possible links to company size or to certain activities or a dominance of certain type of misreporting). Explain whether information from fiscal audits and/or information used for employment data has been used to identify potential non-exhaustiveness types;

This category includes the unobserved activity of entities with a legal existence but which underestimate their profits due to engaging in fiscal and social security fraud. The underreporting of VAT is also included in this category.

- f) types of non-exhaustiveness identified for exemption because producers are not obliged to register (N3), for example if they have no market output, these could be non-market household producers involved in a. production of goods for own consumption or for own fixed capital formation, and b. construction of and repairs to dwellings or producers has some market output but it is below the level at which the producer is expected to register as an entrepreneur; alternatively reference may be made to the description in section 3.1 of the production approach;

This category also covers household production for own final use (consumption or gross capital formation).

- g) types of non-exhaustiveness identified because of statistical deficiencies in data (N7), this could be:
- i. data that is incomplete, not collected or not directly collectable;
  - ii. data that is incorrectly handled, processed or compiled by statisticians. Examples are handling of non-response, production for own final use by market producers, tips, wages and salaries in kind and secondary activities.

Also found in this category are the benefits in kind and production for own final use of market entities that are not capitalised in their accounts. This primarily concerns the production for own final use of intangible assets (software, databases and R&D).

- 3) More detailed information about the different types of non-exhaustiveness adjustments and methodologies can be found in the guidelines to Eurostat's Tabular Approach to exhaustiveness (GNIC/050).
- 4) The elements of the non-exhaustiveness relating to the different activities given above (for example for the different activities of construction, distribution, hotels etc.) should be consistent with the information provided in Chapter 3.

### 7.1.2. Adjustments made for the different types of non-exhaustiveness

- 1) Provide overview tables for output, intermediate consumption and gross value added linking the identified types and elements of non-exhaustiveness to the exhaustiveness methods.
- 2) List the elements of non-exhaustiveness grouped by types (N1-N7) in the rows and the exhaustiveness methods in the columns of the tables. For each element of non-exhaustiveness (within the types) provide a value for the adjustment derived from the relevant methodology applied.
- 3) Also include a column giving the absolute value of the total adjustments per element and rows giving the absolute value per exhaustiveness method and the share of individual methods in total value of exhaustiveness adjustments.
- 4) Comment briefly on the results of the tables.
- 5) Numerical information in the tables should be consistent with the descriptions given in section 7.1.1, the exhaustiveness adjustments given in section 7.1.3, information in Chapter 3 and the data in the Process Tables.
- 6) If one method is covering more than one element of non-exhaustiveness it is recommended to make a split wherever possible; if this is not possible the adjustment should be included in the most relevant element, while including a reference in the other relevant elements.
- 7) Information should be provided on how the individual adjustments are covered in the other two approaches to GDP.



"Chapitre 7 -  
Tableaux.xls"

### 7.1.3. Exhaustiveness methods

Provide detailed descriptions of each adjustment method applied to address the identified elements and types of non-exhaustiveness.

1. Employment method; comparisons made between employment data according to demographic sources and employment underlying GDP/GNI estimates (Title IV of Commission Decision 94/168).
  - a) Specify source for employment data underlying national accounts, i.e. employment data related to the data on output and on value added.
  - b) Has demographic employment been adjusted to total employment in line with Commission Decision 94/168 on exhaustiveness §§ 9-11 to show the total domestic occupied population?
  - c) Has the employment data been converted to fulltime equivalents?

- d) Are the differences between demographic employment and the employment underlying national accounts plausible to reflect the undeclared employment?
- e) Which assumptions have been used with respect to productivity of the identified additional employment? Has the productivity data derived from the sources been adjusted for mis-reporting?
- f) Provide numerical information on the main steps and the adjustments made as a result of employment comparisons.

The main source for the estimation of employment in the national accounts is the ESTEL system (localised job estimates), which is itself based on primarily administrative sources (employment declared by employing units). The data are published in numbers of people but also in full-time equivalents.

The differences between declared employment (ESTEL) and employment estimated via Census are small. There are doubts as to whether they reflect the extent of undeclared employment (perhaps some of the people interviewed during the Census hesitate to reveal an undeclared activity).

The adjustments made to output and value added in relation to the unobserved activity of a unit without a legal existence or which underreports its activity will lead to corresponding adjustments to employment. These adjustments are made on the assumption that the productivity of undeclared jobs is the same as for declared jobs in the same business sector.

Ultimately, taking account of the adjustments made, employment according to the national accounts is higher than employment in ESTEL, and is also higher than employment recorded by the population Census (cf. table).

		Emploi déclaré (Estel)	Recensement 2012		Comptabilité nationale
		France métropolitaine	France métropolitaine	France entière	France entière
		Moyenne annuelle 2010	2012	2012	2010
Agriculture, sylviculture et pêche	AZ	223.1	289.4	298.7	326.2
Fabrication de denrées alimentaires, de boissons et de produits à base de tabac	C1	553.8	524.4	534.5	575.4
Cokéfaction et raffinage	C2	11.3	10.1	10.4	9.2
Fabrication d'équipements électriques, électroniques, informatiques ; fabrication de machines	C3	460.1	411.9	412.9	342.3
Fabrication de matériels de transport	C4	368.4	347.9	348.2	213.9
Fabrication d'autres produits industriels	C5	1,556.4	1,463.7	1,476.5	1,533.8
Industries extractives, énergie, eau, gestion des déchets et dépollution	DE	362.1	379.7	388.7	301.4
Construction	FZ	1,448.6	1,385.8	1,415.2	1,571.1
Commerce ; réparation d'automobiles et de motocycles	GZ	3,013.4	2,884.5	2,942.7	3,268.1
Transports et entreposage	HZ	1,343.2	1,255.8	1,277.1	1,308.9
Hébergement et restauration	IZ	908.8	849.9	866.2	952.6
Information et communication	JZ	687.3	665.3	673.8	743.1
Activités financières et d'assurance	KZ	822.3	834.2	845.5	736.7
Activités immobilières	LZ	234.8	307.3	312.1	321.1
Activités scientifiques et techniques ; services administratifs et de soutien	MN	2,827.0	2,447.9	2,484.1	3,405.4
Administration publique, enseignement, santé humaine et action sociale	OQ	7,603.8	7,624.1	7,851.6	7,500.0
Autres activités de services	RU	1,338.8	1,151.7	1,179.5	1,293.9
<b>Emploi salarié total au 31 décembre</b>	<b>AZ à RU</b>	<b>23,763.2</b>	<b>22,833.9</b>	<b>23,317.8</b>	<b>24,402.9</b>
Agriculture	AZ	439.3	434.4	445.9	439.7
Industrie	BE	130.1	199.1	206.1	134.7
Construction	FZ	287.7	384.4	396.1	296.2
Tertiaire marchand	G, H, I, J, K,	1,178.5	1,502.0	1,542.1	1,206.6
Tertiaire non marchand	O, P, Q, U	407.2	416.6	429.5	415.7
<b>Emploi non salarié total au 31 décembre</b>	<b>AZ à RU</b>	<b>2,442.8</b>	<b>2,936.5</b>	<b>3,019.6</b>	<b>2,492.9</b>
Agriculture		662.4	744.6	744.6	765.9
Industrie		3,442.1	3,336.9	3,377.3	3,110.6
Construction		1,736.4	1,770.2	1,811.3	1,867.3
Tertiaire marchand		12,354.1	11,898.7	12,123.2	13,236.3
Tertiaire non marchand		8,011.1	8,040.7	8,281.1	7,915.7
<b>Emploi total au 31 décembre</b>	<b>AZ à RU</b>	<b>26,206.0</b>	<b>25,046.5</b>	<b>26,337.5</b>	<b>26,895.8</b>

- 2) Illegal activities; include a description of illegal activities that are included in GDP/GNI and of the sources and methods used to make the related estimates.
- a) Provide information on how the recommendations of the GNI Committee related to the estimates of prostitution (GNIC/230) are applied. Address the following aspects:
  - i. Is a supply side based approach used? If another approach is used is this justified carefully?
  - ii. Is the estimate of the number of prostitutes made in a suitable breakdown for different types of prostitution (e.g. street, brothel, apartment, club)? Are prostitution services clearly performed without mutual agreement excluded from the measurement?
  - iii. Are estimates on the average number of contacts per prostitute per period based on expert estimates or specific studies?
  - iv. Are average prices for the different types of prostitution taken from expert estimates or specific studies?
  - v. Are estimates on the share of intermediate consumption - based on expert estimates or specific studies in the field - added? Is the consistency of recording of intermediate consumption with HFCE and with rental output ensured?
  - vi. Is the share of non-resident prostitutes estimated and their services allocated to imports so that only the output and value added of the residents is recorded?
  - vii. Is the share consumed by non-resident households (tourists) estimated based on expert estimates or specific studies and treated as export?
  - viii. Are the purchases of prostitution services by resident households from non-residents, in particular as tourists abroad, properly included in the tourism balance and recorded as HFCE and import?
  - ix. Is the share of income generated and transferred abroad estimated? Are investigations made on how far income generated from prostitution and presumably transferred abroad is already included in the existing estimates on the transition from GDP to GNI?
  - x. If extrapolations from a benchmark year are made, are they made separately for the number of prostitutes and prices?

No adjustment is made for prostitution. A large proportion is assumed to fall outside the scope of output (minors and/or persons residing without authorisation who are forced into prostitution by criminal networks, which can be likened to a form of slavery). The rest of prostitution (unidentifiable as it is carried out under the cover of other activities such as bars and massage parlours) is assumed to be covered by accounting sources and N1 and N6-type adjustments. Explicit adjustment in relation to prostitution would in all likelihood result in double counting.

The value added for production activities has been estimated on the basis of external sources ([www.prostcost.org](http://www.prostcost.org)), producing a figure of approximately €2.9 billion of value added. This estimate is based on a supply-side type of approach. It has not been integrated into the national accounting estimates in order to avoid any double counting.

- b) Provide information on how the recommendations of the GNI Committee related to the estimates of production and trafficking of drugs (GNIC/230) are applied. Address the following aspects:
- i. Is a demand-side based approach used? If another approach is used is this justified carefully?
  - ii. In case a supply side based approach (seizures) is used, are longer time series and statistical methods used to determine average seizure quotas under similar conditions (moving average)? Are thus obtained results confronted with the demand side estimates for the benchmark years?
  - iii. Are quantities and relevant prices estimated separately?
  - iv. Is the estimate of the quantity of drugs consumed stratified by type of drug, by age groups, by type of user (regular, brief or experimental user), etc.?
  - v. Are results for a benchmark year extrapolated with suitable indicators (e.g. expert opinion on the development of number of users in a certain strata)?
  - vi. Is information on average street prices and import prices (wholesale prices) available from studies or experts working in the field used for the estimate of the price element?
  - vii. If drug prices are extrapolated for a number of years is this justified?
  - viii. Is the share of intermediate consumption (for transport, storage or production) in output estimated on the basis of expert estimates and information from similar activities?
  - ix. Is the share of non-residents active in trafficking of drugs within the country estimated based on expert estimates?
  - x. Are investigations carried out on how far income generated from trafficking of drugs by non-resident units and presumably transferred abroad is already included in the existing estimates on the transition from GDP to GNI?

The estimate is based on a demand-side type of approach. The values consumed are estimated on the basis of analyses by experts from the French Drugs and Drug Addiction Monitoring Centre (Observatoire français des drogues et toxicomanies — OFDT), per broad category of narcotic drugs, with total consumption estimated at approximately €3 billion in 2010. The OFDT also provides a variety of indications about the proportion of resident production (estimated at 10% for cannabis and 0% for the other narcotic drugs) and with regard to retail prices compared to wholesale prices. From this information, estimates of resident production (€42 million in 2010) and the margins made by smugglers (€1,958 million), all of whom are assumed to be residents, are produced. Intermediate consumption is ignored. Under these assumptions, the impact on the value added to be accounted for is equal to €2,000 million in 2010. The impact on GNI is identical.

Due to the lack of annual data on this phenomenon, this amount of €2,000 million changes in value at the same rate as GDP.

- c) Provide information on how the recommendations of the GNI Committee related to the estimates of smuggling of alcohol and tobacco products (GNIC/230) are applied. Address the following aspects:
- i. Is a demand-side based approach used? If another approach is used is this justified carefully?
  - ii. In case a supply side based approach (seizures) is used, are longer time series and statistical methods used to determine average seizure quotas under similar conditions (moving average)? Are thus obtained results confronted with the demand side estimates for the benchmark years?
  - iii. Are quantities and relevant prices estimated separately?
  - iv. For countries exporting relevant quantities of contraband, is the export value calculated as quantity x price (fob)?
  - v. Are imports of contraband calculated as quantity x price (fob)?
  - vi. Is the quantity of the smuggled alcohol and tobacco products arrived at by deducting legal sales and direct imports by households (travel expenditure from the total domestic consumption)?
  - vii. Is the estimate of the total consumption on the domestic territory by households of alcohol and tobacco based on available information on consumption patterns in relevant breakdowns (e.g. by age, by sex) or on judgements by experts working in this field? Alternatively, is the analysis of waste performed in order to identify the share of non-declared cigarettes in total consumption? Are the thus obtained results for a benchmark year extrapolated for a number of years with suitable indicators (e.g. population development stratified by age or sex)?
  - viii. Is the export/import price approximated with the average wholesale price of the relevant good in the main exporting country or countries (countries of origin)? If this is not available are domestic prices and reasonable assumptions used?
  - ix. Are the estimates of average sales prices for the smuggled goods based on available statistics or expert estimates?
  - x. Are price estimates for a benchmark year extrapolated for a number of years with suitable price indices?
  - xi. Is the share of intermediate consumption (transport, storage) estimated on the basis of expert estimates and information from similar activities?
  - xii. Are investigations made on how far income generated from smuggling of alcohol and tobacco products by non-resident units and presumably transferred abroad is already included in the existing estimates on the transition from GDP to GNI?

The estimate is based on a demand-side type of approach. The quantities are estimated by comparing survey data for tobacco-consumption habits, corrected for underreporting behaviours (on the basis of analyses by experts from the French Drugs and Drug Addiction Monitoring Unit— OFDT), with the quantities sold legally in France. This provides an estimate of the total consumption of tobacco acquired outside the legal distribution networks in France, which therefore combines smuggling and legal purchases of tobacco abroad. An

OFDT study of the quantities purchased legally abroad can be used to determine the consumption of smuggled tobacco.

This quantity of smuggled tobacco is valued on the assumption that the smuggled tobacco is sold at a discount of approximately 50% on legally sold tobacco (price inclusive of all taxes). Imports of smuggled tobacco are valued on the basis of being 10% lower than the average price of legally imported tobacco. The difference relates to the margins made by the smugglers: an estimated €626 million in 2010.

It is also assumed that intermediate consumptions and other operating charges imputable to the transportation and warehousing of smuggled tobacco are implicitly included in the operating charges declared by owners of individual enterprises in the retail trade who engage in tobacco smuggling under the cover of other activities, both legal and declared (especially the transportation and distribution of declared merchandise). It is also assumed that all smugglers are residents. Under these assumptions, the impact on the value added to be accounted for is equal to the smugglers' margins, i.e. €626 million in 2010. The impact on GNI is identical.

The volumes for the consumption and importation of smuggled tobacco change according to the price of tobacco sold legally in France: a 10% rise in the consumer price index for tobacco is reflected by a 7% rise in the consumption of smuggled tobacco (coefficient obtained by econometric estimation of an equation linking seizures of smuggled tobacco with the price of legally purchased tobacco).

The total amounts of seizures of smuggled alcohol are extremely low in France. This suggests that this is a marginal phenomenon, probably because alcohol prices are relatively low in France in relation to neighbouring countries (in contrast to what can be observed for tobacco). Under these conditions, no adjustments are made for alcohol smuggling.

- d) Describe the measures taken to avoid possible double counting when including illegal activities in national accounts, such as:
  - i. Identifying units likely engaged in illegal activities included in certain activities in the business register;
  - ii. Adjustments for possible false recording of intermediate consumption in HFCE;
  - iii. Analysis of statistics on activities prone to money laundering.

It is assumed that these risks of double counting are negligible for narcotic drugs and smuggled tobacco. On the other hand, they appear to be enormous for prostitution, which is why no correction is made other than the general corrections (covering all types of activities) via approaches N1 and N6.

- 3) Income in kind, as defined in Commission Decision 94/168 on exhaustiveness.
  - a) List the efforts made to identify, monitor and estimate the various types of income in kind (ESA 2010 §4.05), gratuities and activities where tipping is most common.
  - b) Outline a description of existing income in kind, tips and gratuities, including tax rules applicable to these.

In the general case, the General Accounting Plan (PCG) does not contain a heading relating to income in kind. When it is purchased by the enterprise, however, it is recorded under operating charges but cannot be separately identified as such in ESANE. On the other hand, in business sectors with high levels of income in kind, accounting arrangements are used to place them under wages and salaries. Should they correspond to services produced by the enterprise, in the form of housing for example, they are also shown in the enterprise's

operating income. Therefore, no corrections need to be made in order to account for them. Payments to canteens, welfare services and works councils are entered under social contributions.

Therefore, three types of corrections are made to ESANE in order to take account of wages in kind, when they are not already recognised as wages by enterprises.

When the income in kind concerns products purchased by enterprises, it is estimated on the basis of the four-yearly survey of labour costs, by applying the rates derived from this survey to the payroll of the business sectors concerned. In return, the intermediate consumptions derived from ESANE are corrected. This treatment therefore has a positive effect on value added.

Corrections can also be made in order to take account of income in kind relating to the products of employing enterprises. Only certain sectors are affected (transport, social housing). A correction is therefore made to the production derived from ESANE in order to record the counterpart (it consequently increases the value added). The treatment is the same for free rents, corresponding to the rental value of dwellings that the company makes available to its employees free of charge. None of these corrections have any impact on the gross operating surplus of the enterprises concerned.

Finally, the survey of labour costs mentioned above can be used to interpret payments to canteens, welfare services and works committees, which are deducted from the social charges and reintegrated into gross wages and salaries (the correction is therefore neutral over the D.1 aggregate).

- 4) Use of fiscal audits (as defined in Commission Decision 94/168 on exhaustiveness); describe which relevant information is available from fiscal audits and how results from fiscal audits are used to make adjustments for concealed revenue.

Traditionally, the analysis of the underground economy which underlies the introduction of the adjustments to the valuations derived from statistical sources into the French national accounts, leads to a clear distinction between the adjustments made on grounds of fiscal fraud and those made on grounds of undeclared work.

The adjustments for fiscal fraud aim to correct the declarations made about their activity, either to the tax and social security authorities or to statistical surveys, by enterprises that are properly declared.

On the other hand, the adjustments made for undeclared work aim to take account of the activity of totally illegal production units, which consequently make no declarations about their production and income. The situations covered correspond to the activity of self-employed workers, but they may also relate to the activity carried out in illegal workplaces where several people work.

Even in this latter case, the approach adopted by the French national accounts consists of attributing the output originating from undeclared work situations to the same number of self-employed workers. In other words, the corrections made in order to account for the undeclared work do not modify the compensation of employees derived from the statistical sources.

This approach is maintained in base 2010. However, whereas before base 2000, there were no links between the two types of corrections, the case of properly declared companies employing employees on the black is now taken into account: however, the contribution of these employees is still considered in the same way as that of self-employed workers. This point is clarified in detail later on.

The units concerned by the corrections made for fiscal fraud are non-financial, non-agricultural enterprises. General government and financial corporations are deemed to be relatively unlikely to engage in fraud or at least in the underreporting of their activity, which would have an impact on the measurement of their output or income, as measured by the national accounts. And the methods used to estimate the value added of agricultural enterprises are considered not to be sensitive to any fraud that might be perpetrated by their owners.

On the other hand, the evaluation of the contribution of non-agricultural non-financial corporations and unincorporated enterprises to GDP is indeed based on their returns, as indicated in the accounting documents they submit. The method used to correct the concealment of activity which affects these returns is based on the results of auditing campaigns carried out by the tax administration.

### **Tax audits**

For the purposes of base 2010, the information transmitted to INSEE by the tax administration for the auditing campaigns conducted from 2004 to 2006 was used, concerning the financial years from 2000 to 2006. This information relates to the individual results of the tax audit involving the checking of income and expenditure accounting – or of the equivalent for unincorporated enterprises – of approximately 117,000 enterprises. The checks usually extend to all of the information contained in the tax returns; they also concern the turnover declarations when the companies are liable for VAT.

For each audit, the following data in particular are provided:

- the legal form of the enterprise and its tax system;
- rectifications for omission of earnings;
- rectifications concerning accumulated depreciation;
- income before and after the rectifications made by the tax authorities;
- duties retroactively liable for tax;
- updated VAT payments.

These different data are available even when the checks have not led to any adjustment.

This information is used to increase the value added obtained from the statistical sources. Using the results of tax audits should therefore be limited to cases in which the fraud and tax evasion detected have the effect of reducing the value added. Consequently, and especially for the biggest enterprises, there are many ways of reducing the taxable result that juggle with the specific tax regulations, e.g. through the transition from the accounting result to the result for tax purposes (especially the accumulated depreciation) without casting doubt on the sincerity of the declarations relating to the accounting items used to determine the value added.

Finally, the exploitation of the results of the tax audit reflects:

- cases of omission and concealment of taxable earnings (turnover fraud): this is the most common of all reasons for the adjustment of VAT charges. It is also the main reason for the adjustment of the result for income tax purposes for unincorporated enterprises. Although there may be other reasons for companies, it is clearly associated with a risk of reducing the value added;
- cases of overestimating purchases which, by unduly increasing intermediate consumptions, reduce the estimation of value added in the national accounts.

### **Exploitation of the results of tax audits**

The principle of the method used to exploit the results of tax audits is simple. It consists of applying the average rates for the underreporting of turnover and the taxable result, which have been observed for enterprises with similar characteristics that have been audited by the tax authorities, to all enterprises.

However, simply extrapolating the fraud rates of audited enterprises to all enterprises involves a risk of overestimation, because the audits are not random (the tax authorities are more likely to audit enterprises from which they expect to obtain significant adjustments). This risk is certainly mitigated by the stratification of control files according to the legal form, business sector and size category of enterprises insofar as these three criteria are involved in the selection process for enterprises targeted by tax audits.

However, these criteria are not sufficient to eliminate completely the risk of overestimation relating to this selection method. This is why, in the analysis of the results of tax audits, efforts have been made to model the probability of being audited more accurately, by using other criteria of an accounting nature, such as the VAT rate (value added / turnover) or the margin rate (pre-tax gross current profit / turnover). Enterprises of a given legal form, business sector and size for which these accounting rates are comparatively low – and especially those for which these accounting rates are not available – are audited more frequently than the others. In this way, the audit probability for each company is estimated on the basis of the following criteria: legal form, business sector, size, value added rate and margin rate.

Enterprises are therefore grouped into the most homogeneous strata possible in terms of audit probability, and the average fraud rate calculated for the audited companies belonging to a particular stratum is applied to all of the companies in the stratum in question.

This approach, based on post-stratification according to the estimated audit probability, reduces the risk of overestimating fraud associated with the fact that the tax authorities target their audits at certain types of enterprises. It does not eliminate this risk altogether, however, because within the strata defined in this way, the audit probabilities may be affected by variables that cannot be observed in the file created (e.g. the fact that the company has already been detected as fraudulent in the past; or the existence of a denunciation). Therefore, a risk of overestimation related to the means of selection remains, although the chosen method does reduce it. On the other hand, this is not to say that the tax authorities manage to detect every case of fraud during their audit, which could in this situation lead to the overestimation of the impact of fraud on the measurement of activity.

Adjustments always lead to an increase in output that is higher, often significantly so, than the rise in gross operating surplus (mixed income), which is consistent with expectations. This difference still needs to be interpreted.

It may be considered that enterprises that conceal a proportion of their income from output also fail to declare a proportion of their earnings which clearly relate to undeclared sales. That is why the total amount of the rise in output is not fully transferred to the gross operating surplus.

If these expenditures solely concern purchases destined for intermediate consumption, the rise in value added is equal to the rise in gross operating surplus/mixed income. The amount of intermediate consumptions is then systematically corrected.

This analysis applies in the majority of cases. However, in base 2000, for certain activities, the variance between the respective adjustments of sales and the pre-tax result is interpreted as the result of a contribution by paid employment. But, rather than treating the difference as a supplement to the payroll which would then be the subject of tax fraud, it has been deemed preferable to refrain from modifying the compensation of employees estimated by the

business statistics. The contribution of paid employment to the adjustment for tax fraud is interpreted as being a form of undeclared employment.

- 5) Compliance with the different GNP and GNI Committee Task Force recommendations (on Distributive trade and Horeca, on Construction, on Household Budget Surveys and on Intrastat); outline should be given here whereas detailed description should be provided in Chapters 3 and 5.

Systematic comparisons have been made between the Family Budget survey of and the national accounting estimates. They have not revealed any underestimation of activity.

For example, the final household consumption of hotel and restaurant services is spontaneously 24% lower in the 2011 survey than in the national accounting estimates for 2010 (corresponding to a spontaneous difference of €17.4 billion). A proportion of this would seem to be due to the fact that the survey does not take account of stays of fewer than four nights. But even after correcting this field discrepancy (and other sources of discrepancy), expenditure in the survey remains 14% below the expenditure in the national accounts. It should therefore be noted that the national accounting estimate incorporates a large fraud adjustment component, as to a large extent, the fraudulent activity of catering enterprises (measured via tax audit measures) leads to a corresponding increase in final consumption.

- 6) VAT fraud without complicity; show the adjustments made for VAT fraud without complicity, in accordance with Commission Decision 98/527/EC by including a description of the explicit and implicit adjustments (calculations and adjustments that capture absence, evasion or exemption using the following formula: VAT evasion without complicity = Theoretical VAT receipts less actual VAT receipts less time differences less insolvencies less missing revenues (evasion with complicity).

The combined production-income approach, broadly based on institutional data, provides an estimate of production and value added. Its calculation is inclusive of adjustments for the non-observed economy (including concealed activity for tax or social security fraud purposes), but exclusive of VAT.

As the VAT-exclusive production obtained in this way is broken down into branches and therefore into products (with one branch producing a homogeneous class of products), it is added to the supply and use balances, excluding VAT, of the different products. These VAT-exclusive supply and use balances are estimated and balanced in such a way as to conform to the overall value added derived from the institutional data (after adjustments for concealed activity). These supply and use balances ultimately produce detailed estimates of the different domestic uses (final consumption, intermediate consumption and gross capital formation) calculated on a VAT-exclusive basis per product.

These supply and use balances are then converted into VAT-inclusive supply and use balances by applying theoretical rates of VAT to the uses, which are broken down per category of use and per product: these precise VAT rates are provided by the indirect taxation specialists of the General Directorate of the French Treasury. For a given product, the different uses are valued by applying the corresponding theoretical VAT rate to each use, and the aggregate value of the theoretical VAT obtained in this manner is recorded in supply and use balance resources under code D.211.

The theoretical aggregate VAT obtained by adding together the theoretical VAT calculated for all products is, in practice, significantly higher (by €11.16 billion in 2010) than the VAT actually collected by the tax administration: the corresponding gap, referred to as the “VAT

gap” and which is the result of both fraudulent behaviours and statistical uncertainties, is apportioned per product and recorded in output.

7) Other methods not listed above.

For entities without a legal existence (N1-type adjustments), the fraud rates are applied per business sector on the judgement of experts. The estimation is therefore particularly uncertain. The adjustments are focused on activities known for being sources of concealed work. The main activities targeted are: the building sector, motor vehicle repair, IT activities, personal services and commercial education.

8) If a given method is not applied annually, specify the year the adjustment is based upon and the extrapolation method.

9) Explain how possible overlaps are dealt with and whether estimates are validated by comparison with other source data.

10) Ensure that the information provided is consistent with Chapter 3.

## **7.2. Allowance for exhaustiveness in the expenditure approach**

1) If the expenditure approach is considered to be independent and if exhaustiveness estimates are made explicitly and independently for expenditure components, the same level of detail is required for the description as in section 7.1 for the production approach. Otherwise explain how the exhaustiveness of the expenditure estimates is achieved.

### **7.2.1. Identification of types of non-exhaustiveness (for which adjustments are needed)**

1) Show identified areas of absence, evasion and exemption (as defined in Commission Decision 94/168 on exhaustiveness).

2) Structure the description in accordance with the types of non-exhaustiveness N1-N7. Within each type, list and briefly describe the relevant elements of non-exhaustiveness.

3) Present the information by expenditure components (Household final consumption expenditure, Final consumption expenditure of general government and NPISH, Gross fixed capital formation, Changes in inventories and Exports and Imports of goods and Services).

4) Types N1 –N7 can be applied to analysis by the expenditure approach in so far as the basic data are obtained from producers’ surveys (i.e. the same source as employed for the production approach). With the exception of private household consumption and possibly export and imports, other expenditure components may well have similar sources to those used for gross output and intermediate consumption. This facilitates consistency in adjustments to the expenditure and production approaches.

5) In certain cases, for example if a household budget survey is used, it may not be possible to allocate the items of non-exhaustiveness to the N1-N7 taxonomy; it is then recommended to record the exhaustiveness adjustments by convention as N7.

6) In the case of private household consumption, different sources are appropriate for different commodities and it can be difficult to define precisely what constitutes non-exhaustiveness. It is recommended to identify the best source for each commodity and to consider only the adjustment made to this source as exhaustiveness adjustment.

### **7.2.2. Adjustments made for the different types of non-exhaustiveness**

- 1) Provide overview tables for expenditure components of GDP linking the identified types and elements of non-exhaustiveness to the exhaustiveness methods.
- 2) List the elements of non-exhaustiveness grouped by types (N1-N7) in the rows and the exhaustiveness methods in the columns of the tables. For each element of non-exhaustiveness (within the types) provide a value for the adjustment derived from the relevant methodology applied.
- 3) Also include a column giving the absolute value of the total adjustments per element and rows giving the absolute value per exhaustiveness method and the share of individual methods in total value of exhaustiveness adjustments.
- 4) Comment briefly on the results of the tables.
- 5) Numerical information in the tables should be consistent with the descriptions given in section 7.2.1, the exhaustiveness adjustments given in section 7.2.3, information in Chapter 5 and with the data in the Process Tables.
- 6) If one method is covering more than one element of non-exhaustiveness it is recommended to make a split wherever possible; if this is not possible the adjustment should be included in the most relevant element, while including a reference in the other relevant elements.
- 7) Information should be provided on how the individual adjustments are covered in the other two approaches to GDP.

#### 7.2.3. **Exhaustiveness methods**

- 1) Provide detailed descriptions of each adjustment method as required for section 7.1.3. Reference may be made to section 7.1.3 if appropriate.
- 2) Ensure that the information provided is consistent with Chapter 5.

### 7.3 **Allowances for exhaustiveness for the income approach**

- 1) If the income approach is considered to be independent and if exhaustiveness estimates are made explicitly and independently for income components, the same level of detail is required for the description as in section 7.1 for the production approach. Otherwise explain how the exhaustiveness of the income estimates is achieved.

#### 7.3.1 **Identification of types of non-exhaustiveness (for which adjustments are needed)**

- 1) Show identified areas of absence, evasion and exemption (as defined in Commission Decision 94/168 on exhaustiveness).
- 2) Structure the description in accordance with the types of non-exhaustiveness N1-N7. Within each type, list and briefly describe the relevant elements of non-exhaustiveness.
- 3) Present the information by the components of the income approach (Compensation of employees, Gross operating surplus, Mixed income).
- 4) As the income approach often makes use of the same data sources as for the production approach, the same N1-N7 types are appropriate.

#### 7.3.2 **Adjustments made for the different types of non-exhaustiveness**

- 1) Provide overview tables for income components of GDP linking the identified types and elements of non-exhaustiveness to the exhaustiveness methods.
- 2) List the elements of non-exhaustiveness grouped by types (N1-N7) in the rows and the exhaustiveness methods in the columns of the tables. For each element of non-exhaustiveness (within the types) provide a value for the adjustment derived from the relevant methodology applied.
- 3) Also include a column giving the absolute value of the total adjustments per element and rows giving the absolute value per exhaustiveness method and the share of individual methods in total value of exhaustiveness adjustments.

- 4) Comment briefly on the results of the tables.
- 5) Numerical information in the tables should be consistent with the descriptions given in section 7.3.1, the exhaustiveness adjustments given in section 7.3.3, information in Chapter 4 and with the data in the Process Tables.
- 6) If one method is covering more than one element of non-exhaustiveness it is recommended to make a split wherever possible; if this is not possible the adjustment should be included in the most relevant element, while including a reference in the other relevant elements.
- 7) Information should be provided on how the individual adjustments are covered in the other two approaches to GDP.

#### 7.3.3 **Exhaustiveness methods**

- 1) Provide detailed descriptions of each adjustment method as required for section 7.1.3. Reference may be made to section 7.1.3 if appropriate.
- 2) Ensure that the information provided is consistent with Chapter 4.

## 8.0. Introduction

- 1) Provide a summary table with the transition items from GDP to GNI showing figures for compensation of employees received from the rest of the world and paid to the rest of the world, taxes on production and imports paid to the Institutions of the EU and subsidies granted by the Institutions of the EU, property income received from the rest of the world and paid to the rest of the world. Within the property income received and paid provide separate figures for the following types of income: interest, distributed income of corporations, reinvested earnings on FDI and other investment income.
- 2) Describe cooperation between the statistical office and central bank (and other institutions, where applicable).
- 3) Provide information on whether the concepts relating to compensation of employees and property income, given in the Balance of Payments Manual 6, are fully implemented in the countries' Balance of Payments. If not, explain what appropriate adjustments are made to ensure consistency with ESA 2010 concepts.

The balance of payments published by the Bank of France since June 2014 is considered to be compliant with the concepts of the BPM6, which in principle makes the majority of the corrections for compliance with ESA 2010 inapplicable.

In practice, however, the balance of payments had not finalised its new estimates in BPM6 when INSEE's national accountants needed to finalise the estimates relating to 2010. The national accountants therefore used a balance of payments that still conformed to BPM5 in order to establish the 2010 levels. In addition, the national accountants used updated but unpublished data provided by the balance of payments in March 2013 (these data were only published in June 2013 in the annual balance of payments report for 2012). The Process tables are therefore presented in the following manner:

- the "Surveys and censuses" column includes the public estimates obtained during the determination of the 2010 levels, i.e. the data published in June 2012, in the 2011 annual balance of payments report;
- the "Data validation" column includes the corrections made to these figures to take account of the revisions hinted at by the updated estimates transmitted to INSEE during March 2013;
- the following columns specify corrections of a conceptual nature (FISIM corrections and other corrections made to make sure that the final estimates conform to the concepts of the ESA 2010.

### 8.1. Compensation of employees

- 1) Describe sources and procedures used to identify resident employees working for non-residents and non-resident employees working for residents and the related compensation of employees.
- 2) Describe established exchanges of data made with neighbouring countries on cross-border workers.

The source used for evaluating the compensation of employees is the "Compensation of employees" item in the balance of payments.

To estimate the wages and salaries paid in France to non-residents, the balance of payments uses data provided by social security funds, which provide information about the payroll subject to contributions (chosen to estimate item D.11) and the contributions paid to the social

security funds (chosen to estimate item D.12): the sum of the two provides an estimate of the compensations paid to the rest of the world (item D.1).

To estimate the wages and salaries paid from outside France to French residents working outside France, the balance of payments relies on "mirror" data, i.e. estimates of compensations paid to French residents which are provided by the balances of payment of other countries. Their use is relevant to the case of French cross-border workers, whose wages and salaries are declared by their non-resident employers to their tax or social security administration, which gives the countries that host these workers (primarily Switzerland, Germany, Luxembourg and Belgium) a better idea of their numbers and their compensations.

- 3) Provide information on correct recording of cross-border flows of compensation of employees on the accrual basis (ESA 2010 §4.02).

For France at least, the social security funds' accounts are kept on an accrual basis, which ensures that the estimates comply with the concepts of ESA 2010.

- 4) Provide information whether social contributions (actual and imputed) payable by employers are included in the compensation of employees exchanged with the rest of the world (ESA 2010 §§4.09 – 4.10).

The method consisting of using data from the social security funds (to which the payroll is declared and contributions paid) ensures that the estimates genuinely include the actual contributions owed by the employers.

- 5) Provide information whether social contributions, income taxes and other payments payable by employees (including those withheld by the employer and paid directly to social insurance schemes, tax authorities, etc.) are included in the compensation of employees exchanged with the rest of the world (ESA 2010 §4.03).

The method consisting of using the data from social security funds (to which the gross payroll is declared and the contributions paid) ensures that the estimates do indeed include all of the actual contributions due (irrespective of whether they are paid by the employees or deducted at source by the employers) as well as the different charges and taxes.

- 6) Provide information whether cross-border compensation of employees from extra-territorial organisations is included in the compensation of employees exchanged with the rest of the world. Provide information on the register (completeness, updating intervals etc.) of extra territorial organisations (extra territorial enclaves in the country and territorial enclaves abroad). Are data for these organisations regularly surveyed or obtained from administrative sources? Describe potential adjustments made to ensure consistency of the estimates for these bodies with national accounts concepts.

A retreatment is applied in order to deduct the compensations received by French development workers (amounting to €470 million in 2010), who are in reality non-residents, from the estimate of compensations received by the rest of the world provided by the balance of payments. INSEE obtains the estimated compensations received by development workers from the balance of payments.

## 8.2. **Taxes on production and imports paid to the Institutions of the EU**

- 4) Describe sources and procedures used to identify and correctly classify taxes on production and imports paid to the Institutions of the EU.

For these items, public accounting data are preferred to balance of payments data. It totalled €1,972 million in 2010.

- 5) Provide information on the treatment of the payments for the GNI and VAT based EU own resources.

These payments are accounted for in D.76 and not in primary income flows, pursuant to the provisions of ESA 2010.

6) Provide information on types of taxes collected on behalf of the Institutions of the EU. This item includes tax flows paid by France to European institutions excluding own resources based on VAT and GNI (which are accounted for in D.76). Almost all of them correspond to customs duties and dock dues (D.212).

7) Describe procedures used to comply with the accrual time of recording.

The budgetary accounting data are generally restated for the needs of national accounting for compliance with the principle of recording on an accrual basis.

### **8.3. Subsidies granted by the Institutions of the EU**

1) Describe sources and procedures used to identify and correctly classify subsidies granted by the institutions of the EU.

For these items, public accounting data are preferred to balance of payments data. It totalled €8,930 million in 2010. €1,399 million in other subsidies on products (D.319) and €7,531 million in other subsidies on production (D.39). The subsidies pass via a Treasury account, which is not recorded in the account of public administrations in the national accounts, but whose elements are provided by the national accounting system.

2) Describe procedures used to comply with the accrual time of recording.

As for all public accounting operations, if necessary, the corresponding flows are restated to ensure their compliance with the principle of recording on an accrual basis.

3) Describe the treatment of different types of EU grants in national accounts.

### **8.4. Cross-border property income**

#### **8.4.1. Interest**

1) Describe sources and procedures used to identify and cover cross-border flows of interest on each type of financial assets (deposits, loans; bills and similar short-term instruments; bonds and debentures; swaps and forward rate agreements; financial leases; bank overdrafts) (ESA 2010 §§4.43 – 4.49).

The amounts of interest accounted for include interest on: deposits, credits and accounts receivable and payable; securities other than shares (bonds); leasing transactions.

The evaluation of interest requires taking the following items from the balance of payments:

-all other investment income;

- the majority of portfolio income, on the basis of either the details from balance of payments headings, or an estimate provided by an expert.

On the other hand, estimates from the balance of payments do not include leasing transactions involving non-residents: a correction is therefore made on these grounds (the amount is low: €49 million on interest received from the rest of the world, and €31 million on interest paid to the rest of the world).

2) Describe procedures used to comply with the accrual time of recording.

Interest is measured in accrued terms. During each accounting period, it must be recorded irrespective of whether it is actually paid or added to the total debt.

In compliance with the principle of recording transactions on an accrual basis, the correction of portfolio investments for accrued interest consists of deducting the interest accrued from the transferable securities trading flows (short-term securities, bonds and medium-term bonds), which are included in the price of the transactions actually carried out during the period in question.

The deduction of the accrued interest allows the portfolio investments to be adjusted to the market value of the capital exchanged between residents and non-residents. As a consequence, the apportionment of the accrued interest to investment incomes brings us closer to the concept of incomes measured on an accrual basis. The transactions are therefore recorded in the financial account of the balance of payments excluding accrued interest (which is accounted for in investment incomes).

- 3) Describe whether the creditor or debtor approach is used to calculate cross border flows of accrued interest on debt securities.

The income flows for debt securities are determined by the balance of payments on the basis of the outstandings that are applied, according to the amount of available information, interest for individual securities or aggregated per type of instrument.

- 4) Provide information on the recording of interest with respect to taxes levied on it and with respect to grants for interest relief (ESA 2010 §4.51).

A correction is applied to the balance of payments data, consisting of increasing the interest paid to the rest of the world by the amount of income tax deducted at source by the French public administrations. It totalled €3,235 million in 2010. The symmetrical correction is not made, due to insufficient information, for the interest received by residents from the rest of the world. These are probably subject to tax, but the taxation method depends on the other countries' tax rules.

- 5) Provide information on how cross-border interest receipts/payments meet the ESA 2010 recommendation on index-linked debt securities (ESA2010 §4.46 (c)).

Pursuant to the ESA 2010 methodology, the impact of the indexing of certain securities issued by the State is accounted for under liabilities. However, this is not the case for assets (the analyses carried out by the balance of payments indicate that the impact of indexing is especially significant for liabilities).

- 6) Provide information on whether the correction to interest received from and paid to the rest of the world is made to offset the FISIM effect on trade.

The correction that is made for FISIM is therefore based on a complete description of the relations between agents, which assumes that a distinction is always made between financial intermediaries and non-financial agents, for residents and non-residents. This is carried out in the framework of the overall evaluation of FISIM (see chapter 3). In 2010, the correction amounts to reducing the interest received from the rest of the world by €3,157 million, and the interest paid to the rest of the world by €1,044 million.

- 7) If a Eurozone country, describe the treatment of the interest flows associated with the Intra-Eurosystem ("technical") financial claims and liabilities related to the issuance of Euro bank notes. In particular provide information on to the following aspects:

- c) If a Eurozone country has an Intra-Eurosystem ("technical") asset, is the associated interest flow recorded as D.41 interest received from the rest of the world?
- d) If a Eurozone country has an Intra-Eurosystem ("technical") asset, is the associated interest flow recorded as D.41 interest received from the rest of the world?

Yes, the interest flows in question are actually recorded in D.41, irrespective of whether the net position involves interest received from the rest of the world or paid to the rest of the

world.

- e) Is the D.41 interest received/paid from/to the rest of world from a direct data source or is it modelled based on the stock of the Intra-Eurosystem ("technical") assets and liabilities?

The flows are modelled directly on the basis of the Bank of France's accounting system.

- i. If the latter, what is the source for the "reference rate" used to calculate the associated D.41 interest flow?

## **8.4.2. Distributed income of corporations**

### **8.4.2.1. Dividends**

- 3) Describe sources and procedures used to identify and cover cross-border flows of dividends. These should include shares issued to shareholders in payment of the dividend, income paid to general government by public enterprises and income generated by non-observed activities and transferred to the owners of corporations (ESA 2010 §4.54).

The dividends are obtained by taking all of the direct investment income from the balance of payments, excluding the category of reinvested earnings, and the proportion of portfolio revenues that is not recorded under interest. The balance estimates the corresponding flows which are calculated by applying a rate of return to the outstanding securities at market value, which is defined as the ratio between the dividends received or paid over the period and the market value of the security.

The amounts paid to the rest of the world are corrected to incorporate the amount of income tax deducted at source by the French general government. It totalled €446 million in 2010. The symmetrical correction is not applied due to insufficient information.

- 4) Provide information on treatment of super-dividends (ESA 2010 §4.55).

The super-dividend test is not applied by the balance of payments.

- 5) Describe procedures used to comply with the rules for time of recording of dividends (ESA 2010 §4.57).

As the balance of payments data are supposed to follow the principle of accrual basis recording, no re-treatment is necessary.

### **8.4.2.2. Withdrawals from the income of quasi-corporations**

- 10)** Describe sources and procedures used to identify and cover cross-border flows of withdrawals from the income of quasi-corporations.

National accountants classify construction works undertaken abroad by resident enterprises in this category: in this case, it is considered that the resident enterprise creates a quasi-corporation abroad which transfers its profits back to the resident enterprise. Symmetrically, when a non-resident enterprise carries out a construction project in France, it is considered to have created a French quasi-corporation for this purpose which transfers its profits back to the parent company.

However, the corresponding amounts are not included in the primary incomes account of the balance of payments but rather in the trade in services estimated by the balance of payments (there is no trade in construction services in the French national accounts). In practical terms, the positive balance for major construction works in the balance of payments (+€2,169 million) is recorded as levies on quasi-corporations received from the rest of the world. The negative balance (-€385 million) for foreign merchandise is recorded as levies on quasi-corporations paid to the rest of the world.

- 11)** Provide information on recording of withdrawals with respect to current taxes on income, wealth, etc. (ESA 2010 §4.58).

No corrections are made to the balance of payments flows.

12) Provide information on time of recording of withdrawals from the income of quasi-corporations (ESA 2010 §4.62).

No corrections are made to the balance of payments flows, which are supposed to follow the principle of accrual basis recording.

13) Describe sources and procedures used to identify and cover net operating surplus received by residents as owners of land and buildings in the ROW or by non-residents as owners of land and buildings on the economic territory (ESA 2010 §4.60).

In principle, the corresponding phenomenon is marginal and is not therefore accounted for.

14) Provide information on recording of the rental value of owner-occupied dwellings abroad and the rental value of owner-occupied dwellings belonging to non-residents (ESA 2010 §4.60).

The flows of levies on the incomes of quasi-corporations do not include any amounts for the net operating surplus of resident households that own a secondary residence abroad (or of non-resident households that own a secondary residence in France). The investigations carried out in 2014 and 2015 in the framework of cross-cutting reserve I on "cross-border property income" in ESA 1995 showed that not accounting for these flows (which probably leads to a slight overestimation of French GNI) had a very small impact as a % of total GNI.

#### 8.4.3. Reinvested earnings (RIE) of foreign direct investment (FDI)

1) Provide information on the organisation in charge of estimating RIE.

The flows of reinvested earnings are estimated in the balance of payments.

Reinvested earnings are estimated by exploiting the accounts of French and foreign direct investment enterprises. However, although the dividends of the invested resident enterprises that are paid out to their direct non-resident investors and, above all, the dividends of the invested non-resident enterprises that are paid out to their resident direct investors over a given year are known, at least in part, during the weeks following their payment, this is not the case for reinvested earnings, whose amounts cannot be determined until the French companies have published their annual accounts and made known the results of their subsidiaries and foreign holdings. On the whole, therefore, direct investment earnings are not definitively established until around 15 months after the end of the reference year. They are initially subject to a statistical estimation.

2) Provide a definition of a direct investment enterprise.

A direct investment enterprise is a non-resident (or resident) corporation in which a resident (or non-resident) corporation holds at least 10% of the ordinary shares or voting rights (directly or indirectly). This is a broader concept than that of a foreign enterprise under French control (or a French enterprise under foreign control).

3) Describe the method to capture indirect links within big company groups (multinationals).<sup>7</sup>

The balance of payments survey on the foreign subsidiaries of French enterprises is based on the social accounts of direct foreign subsidiaries. Consequently, it does not report on cases of indirect holdings. However, the balance of payments carries out systematic research on the reinvested earnings of the indirect subsidiaries of the major French groups on an annual basis by comparing French direct investment earnings abroad with the net current (consolidated) results of the group's share declared by French groups in the framework of the OFATS (outward foreign affiliates) survey. The two approaches produce very similar orders of magnitude.

4) Provide a definition of RIE.

Reinvested earnings correspond to the non-distributed share of the operating surplus of direct investment enterprises.

- 5) Describe measures taken to exclude holding gains and losses from direct investment income (separately for non-financial and financial corporations).

The balance of payments estimates are based on the accounts of direct investment enterprises and their owners. For non-financial enterprises, the operating result excludes holding gains or losses to ensure that the reinvested earnings are correctly estimated.

For financial corporations (primarily banks), the situation is more complicated. As regards resident direct investment companies held by non-resident banks, the French accounting plan compels the investee enterprises to record their holding gains and losses separately in their accounts, which allows for the correct recognition of reinvested earnings. But it is impossible to isolate the holding gains and losses for non-resident direct investment companies held by French banks. However, on average, this tends to lead to an overestimation of French GNI (holding gains are more common than holding losses), but probably to a limited extent, because the analysis of data for the symmetrical case of the holding gains and losses of resident direct investment enterprises held by foreign banks shows that these holding gains and losses are quite small.

- 6) Describe data sources for outward and inward direct investment flows.

To calculate the statistics for reinvested earnings, the balance of payments uses the following sources in particular: the database on resident enterprises kept by the Banque de France's Corporate Directorate for foreign direct investments in France, the Unified Financial Reporting System (SURFi) for direct foreign investments in the resident banking sector, and INSEE data allowing for the identification of holdings in the context of direct investments via business registers.

- 7) Describe characteristics of the FDI register and information on its coverage (including holding companies, SPEs).
- 8) Provide information on validation of data from the FDI survey with the data from other data sources (which data sources, period of validation). Are data for the largest enterprises validated at the individual level?
- 9) Provide information on any eventual imputation to take account of non-response of surveyed FDI enterprises.
- 10) Provide information on imputation to take account of eventual cut-off of FDI enterprises below a certain threshold.
- 11) Provide information on the method used to compile RIE (Method I or Method II as described in the document GNIC/052; in the case of Method I profits and distributed earnings of direct investment enterprises are from the same source(s), typically FDI surveys or administrative information; in the case of Method II profits and distributed earnings are from different sources, typically profits come from FDI surveys and distributed earnings from international transactions reporting systems (ITRS)).

Method I is applied (accounting data on the direct investment enterprise allow for the estimation of both the operating surplus and the profit actually distributed).

- 12) Are dividends measured for RIE and cross border dividends related to portfolio investment properly distinguished (in the case of the Method I)?

Yes, they are properly distinguished in the balance of payments statistics.

- 13) Is consistency ensured between the data source for profits and the data source for distributed earnings (in the case of the Method II)? Is the set of direct investment enterprises identical in both data sources?

- 14) Provide information on time of recording of reinvested earnings on FDI (ESA2010 §4.67).

For the calculation of the statistics relating to reinvested earnings, as for the other statistics it publishes, the balance of payments is obliged to conform to the principle of accrual basis recording.

#### **8.4.4. Other investment income**

##### **8.4.4.1. Investment income attributable to insurance policy holders**

- 6) Describe sources and procedures used to identify and cover cross-border flows of investment income attributable to insurance policy holders (ESA2010 §4.68)

No flows are accounted for with the rest of the world and all earnings apportioned to policyholders are considered to be paid to resident households. The assumption made is that the consumers of insurance services inevitably use French insurance corporations or the French subsidiaries of foreign insurance corporations, in view of the regulatory constraints. This assumption has certainly not been comprehensively verified but it is probably quite realistic.

- 7) Provide information on possibilities to distinguish resident and non-resident insurance policy holders in domestic data sources.
- 8) Provide information on availability of data on resident insurance policy holders abroad
- 9) Provide information on recording of the investment income attributable to insurance policy holders (ESA2010 §4.70)

##### **8.4.4.2. Investment income payable on pension entitlements**

- 1) Describe sources and procedures used to identify and cover cross-border flows of investment income attributable to insurance policy holders (ESA2010 §4.68)

No flows are accounted for with the rest of the world.

##### **8.4.4.3. Investment income attributable to collective investment fund shareholders**

- 1) Describe sources and procedures used to identify and cover cross-border flows of investment income attributable to domestic shareholders of foreign collective investment funds (broken down by dividends attributable to collective investment funds' shareholders and retained earnings attributable to collective investment funds' shareholders)
- 2) Describe sources and procedures used to identify and cover cross-border flows of investment income attributable to foreign shareholders of domestic collective investment funds (broken down by dividends attributable to collective investment funds' shareholders and retained earnings attributable to collective investment funds' shareholders)

The balance of payments does not account for flows of investment earnings paid by collective investment funds (CIF).

However, the Banque de France's Directorate of Monetary and Financial Statistics collects highly detailed data on resident CIFs which means that it is possible to isolate the flows of investment earnings paid by resident CIFs to non-resident holders (€2,672 million in 2010).

On the other hand, the symmetrical data (investment earnings paid out by non-resident CIFs to resident holders) is not provided by any source. However, the balance of payments provides estimates relating to both the assets under management of resident CIFs held by non-residents and the assets under management of non-resident CIFs held by residents. These estimates can therefore be used to infer the rates of return on resident CIFs for non-resident investors: 1.0% in 2010 for monetary CIFs and 2.8% on non-monetary OPCs. These rates of return are then applied to the stocks of non-resident CIF assets under management (monetary and non-monetary) held by residents, which can be used to estimate the investment earnings paid by non-resident CIFs to resident holders (€2,488 million in 2010).

#### 8.4.4.4. **Rent on land and sub-soil assets**

- 1) Describe sources and procedures used to identify and cover cross-border flows of rent on land receivable by the landowner, including owners of inland waters and rivers (ESA2010 §4.72)

No flows are accounted for with the rest of the world.

- 2) Describe sources and procedures used to identify and cover cross-border flows of royalties receivable by the units for granting the right to exploit sub-soil assets (ESA2010 §4.74)
- 3) Provide information on time of recording of rents (ESA2010 §4.75)

Describe the correspondence between the national classifications used (in compilation practice) and those given in ESA 2010.

### 11.1. Classifications used for the production approach

The classification used in the production approach is basically the Nace rev.2, i.e. the one given in ESA 2010.

More precisely, production accounts by homogenous branch of activity are elaborated at the A\*129 Nace rev.2 level. The only deviation to standard aggregate levels of Nace rev.2 is that French national accountants choose to distinguish market and non-market branches within A\*129 levels given different principles of valuation of output for market and non-market activities. This is relevant only for ten A\*129 branches (the ones where there is a significant non-market activity). Hence, in practice, production accounts are elaborated for 139 branches (A\*139 level in national classification). In the specific case of households' consumption the compilation level is far more detailed (between groups and classes of Nace rev.2).

Annual production accounts are typically published at the A88 and A38 levels that are defined at the international level. Quarterly accounts are published at a less disaggregated level since they rely on less detailed data sources: however they do not use the internationally-defined A\*21 level, but a national aggregate level in 17 branches (A\*17) that seem more appropriate for economic analysis given the structure of the French economy. The table below gives the bridge table between A\*38 and A\*17.

A*17	A*38
AZ	A
C1	CA
C2	CD
C3	CI, CJ, CK
C4	CL
C5	CB, CC, CE, CF, CG, CH, CM
DE	B, D, E
FZ	F
GZ	G
HZ	H
IZ	I
JZ	JA, JB, JC
KZ	K
LZ	L
MN	MA, MB, MC, N
OQ	O, P, QA, QB
RU	R, S, T, U

### 11.2. Classifications used for the income approach

For the income approach the classifications used for operations and institutional sectors are typically the ones given in ESA 2010. The only deviation is that French national accountants distinguish a few subsectors within the households considered as producers:

- S.14A Unincorporated enterprises, of which:
  - S.14AA non financial unincorporated enterprises

-S.14AF financial unincorporated enterprises  
-S.14B “Pure” households: this case covers the activity of households as employers or as producers of real estate services.

### **11.3. Classifications used for the expenditure approach**

The classification by type of non financial assets used in the expenditure approach is the one given in ESA 2010. The classification by products is the A139 derived from Nace rev.2 already described for the production approach.

As regards the publication levels, they are the same as those described for the production approach (A88, A38, A17).

### **11.4. Classifications used in the transition from GDP to GNI**

The classifications used for the transition from GDP to GNI are the ones given in ESA 2010.

### 1. The ESANE source

The ESANE source compiles all of the supposedly exhaustive data covering all enterprises (legal units), produced in accordance with the General Accounting Plan (PCG). The standard tax forms, which include a balance sheet and an income statement conforming to the PCG, are included in an attachment below.



"Chapitre 10 -  
Annexe 1 - Liasse fisr

The National Enterprise and Establishment Register Database (SIRENE) is the reference source for this information. The completion and adjustment of the accounting data, compiled in the IECN interface, involve very comprehensive processing and have a decisive impact on the exhaustiveness of the accounts. This point is developed separately below.

ESANE adds the results of structural surveys administered to enterprises: the Annual Production Surveys (EAP) for industry and the Annual Sectoral Surveys (ESA) for the other business sectors, to the accounting data gathered by matching the SIRENE register database with the accounts transmitted by enterprises to the tax authority.

The EAP and ESA surveys are administered to all of the biggest enterprises (legal units) and only to a sample of smaller enterprises. These surveys provide the following information in particular:

- about the business sector of the enterprises interviewed. Information about the business sector is already available in SIRENE but it is only generally added to the register database when the enterprise is created and is usually never updated thereafter. The inclusion of the survey data allows for the correction of any errors that may arise as a consequence;
- about the breakdown of the enterprise's turnover into homogeneous activity branches. Indeed, the accounting data only show the total turnover, while enterprises may have secondary activities alongside their principal activity. The EAP and ESA allow for the output to be broken down into the enterprise's different activity branches, offering a more accurate estimate of the output of different goods and services (to be added to the supply and use balances, which allow for a comparison of the different approaches to GDP).

The EAP and ESA questionnaires are appended to this document.

The surveys are immediately used in the field of the biggest enterprises, in which the surveys are exhaustive and for which both the tax forms and the survey results are available.

The use of the surveys is more complex in the field of smaller enterprises, for which sampling is carried out. The results obtained in the field of the actually surveyed enterprises are extrapolated to all of the enterprises within a single stratum correlating the business sector and the size of the enterprise.

#### Allocation of accounts for enterprises that are wrongly omitted or subject to the "micro-enterprise" tax category

All of the accounting documents included in the tax return constitute a sort of inventory of industrial, commercial and handicraft enterprises, but in practice, certain enterprises are omitted from it. Late declarations submitted by enterprises are omitted from the file

transmitted by the tax authority, for example. Certain enterprises may also be omitted because all amounts are reset to zero in the tax return because:

- the enterprises are taxed by a default amount for failing to submit a declaration, an accounting irregularity, etc.;

- they have not had a financial period for which the accounts have been closed during the year;

- they do not appear to have any activity; but the tax authority considers them to have had some activity because they appear in the file initiating the transmission of tax questionnaires.

ESANE is therefore responsible for estimating the data of enterprises wrongly omitted from the tax statistics. A unit that meets the following criteria is considered to be wrongly omitted from the tax source:

- it is included in the File of Permanent Taxable Persons (FRP);

- it is omitted from the file of enterprises for which the DGFIP possesses the tax forms;

- it has been declared to be active for the year in question in the last available SIRENE file; more is known about its status: it has declared a suspension of business activity during the year in question in which it is normally active, or otherwise it concerns a creation of activity;

- it has filed an account (included in ESANE) or submitted VAT declarations in at least one of the 2 previous years.

For enterprises considered to have been wrongly omitted from the tax source in this way, the accounts are estimated by taking account of the available data via the VAT declaration, or by applying the average change in the category (correlating the business sector and the size of the legal unit) to which it belongs to the last known account (last available tax forms).

The accounting items also concern particular categories of enterprises that are rightfully omitted from the files constituting the tax forms because they are legally exempted from submitting tax returns. The tax forms transmitted to INSEE contain no accounting data for these units: only the turnover is known. These are entities affiliated to the "micro-enterprise" scheme. This category includes people who have chosen "auto-entrepreneur" status (automatically affiliated to the micro-enterprise tax category), created in 2009.

The micro-enterprise tax category can only apply to enterprises whose annual turnover does not exceed:

- the tax-exclusive sum of €82,000 for operators whose main business is the selling of merchandise, items, provisions and commodities to be taken away or consumed on the premises, or the provision of housing;
- the tax-exclusive sum of €32,900 for service providers.

In addition, the enterprises concerned are exempted from VAT.

In 2010, this population corresponded to approximately 700,000 enterprises, making turnover of approximately €7.2 billion (corresponding to an average annual turnover of approximately €10,000).

For these enterprises, therefore, only the turnover data is available. In order to extrapolate the missing accounting items, the average accounting structure (i.e. the ratio between each accounting item and the turnover) is calculated for the smallest enterprises subject to the normal category (and therefore obliged to an accounting package), and this average structure is applied to the data relating to the turnover of micro-enterprises.

All of the adjustments thus applied in ESANE to the accounting packages transmitted by the general government - either in relation to enterprises considered to have been wrongly

omitted, or to enterprises subject to the micro-enterprise tax category - **raises the gross value added estimated by ESANE by approximately €40 billion per year.**

In addition, several retreatments to the structural business statistic are carried out in ESANE. The most important retreatment concerns the employee profit sharing, which is recognised in the distribution of income account in the general accounting plan. The retreatment leads to the recognition of employee profit-sharing in the profit and loss account, under compensations (in accordance with national accounting concepts). The employee profit-sharing reclassified in this way has an approximate value of €8 billion.

Name of survey: <i>Enquête annuelle de production</i> (EAP) (Annual production survey)
Link to surveys undertaken at the European level (e.g. structural business statistics): SBS - PRODCOM
Reporting units (e.g. enterprise/ local KAU/ household): LKAU
Periodicity (e.g. annual/quarterly/other- to be specified): Annual
Time of availability of results (e.g. 18 months after the end of the survey period): 6 months
Sampling frame: (e.g. name of business register used/ population census): SIRENE
Survey is compulsory or voluntary? Compulsory
Main features of survey methodology (e.g. PPS sampling/ panel of respondents/ use of a size threshold for sampling/ postal questionnaire/ telephone interview): Internet questionnaire (postal questionnaire possible)
Population size:
Sample size: 40,000.
Survey response rate:
Method used to impute for missing data:
Variable used for grossing-up to the population (e.g. turnover/ employment):
Sample coverage, as % in terms of variable used for grossing-up (e.g. sample covers 60% of employment recorded on the sampling frame):
Main variables collected: The annual production survey (EAP) has two main aims: - identify the different activities carried out by enterprises via the breakdown of their turnover into different branches, and from this, determine their principal activity (APE); - provide information allowing for the production of precise data on industrial output, both in response to the requirements of the European Prodcom Regulation, and to satisfy the needs of national users - especially the needs of professional organisations. PRODCOM is the abbreviation of industrial production (PROD) surveys defined at the Community (COM) level and governed by regulation (EEC) no. 3924/91 of the Council (19 December 1991).
Further adjustments made to the survey data:



"Chapitre 10 -  
Annexe 2 - EAP 2012

Name of survey: <i>Enquête sectorielle annuelle</i> (ESA) (Annual sectoral survey)
Link to surveys undertaken at the European level (e.g. structural business statistics): SBS
Reporting units (e.g. enterprise/ local KAU/ household): LKAU
Periodicity (e.g. annual/quarterly/other- to be specified): Annual
Time of availability of results (e.g. 18 months after the end of the survey period): 6 months
Sampling frame: (e.g. name of business register used/ population census): SIRENE
Survey is compulsory or voluntary? Compulsory
Main features of survey methodology (e.g. PPS sampling/ panel of respondents/ use of a size threshold for sampling/ postal questionnaire/ telephone interview): Postal or Internet
Population size:
Sample size: 40,000.
Survey response rate:
Method used to impute for missing data:
Variable used for grossing-up to the population (e.g. turnover/ employment):
Sample coverage, as % in terms of variable used for grossing-up (e.g. sample covers 60% of employment recorded on the sampling frame):
Main variables collected: The Annual Sectoral Survey (ESA) aims to identify the different activities carried out by enterprises, via the breakdown of their turnover into branches (sectoral classification), allowing for a better evaluation of their principal activity (APE).  The ESA also allows for the observation of legal restructuring operations that affect the running of the enterprises. It supplements the information provided by the tax forms with regard to investments - especially its intangible component - and describes the main characteristics of each economic sector.
Further adjustments made to the survey data:



"Chapitre 10 -  
Annexe 3 - ESA 2015

## 2. Surveys in the social services field

These surveys, conducted every four years by DREES (Directorate for Research, Analysis, Evaluation and Statistics, Ministries for Health and Social Affairs), cover all active establishments in the field of social services, identified in the FINESS register listing establishments that have been granted an authorisation.

The register reveals the number of places in each establishment. The surveys can be used to determine the actual occupancy rate and therefore to estimate the population actually cared for, a major input for the estimation of output.

The questionnaire for one of these surveys - the survey on old people's homes administered in 2011 - is shown below. DREES also carries out a survey of establishments caring for disabled persons (children or adults) and a survey of establishments specialising in the provision of support for persons with social difficulties (children or adults).

Name of survey: <i>Enquête sur les établissements d'hébergement de personnes âgées</i> (EHPA) (Survey of nursing homes for the elderly) 2015
Link to surveys undertaken at the European level (e.g. structural business statistics): None
Reporting units (e.g. enterprise/ local KAU/ household): nursing homes for elderly people
Periodicity (e.g. annual/quarterly/other- to be specified): every 4 years
Time of availability of results (e.g. 18 months after the end of the survey period): 12 months
Sampling frame: (e.g. name of business register used/ population census): Administrative file containing all active nursing homes
Survey is compulsory or voluntary? Compulsory
Main features of survey methodology (e.g. PPS sampling/ panel of respondents/ use of a size threshold for sampling/ postal questionnaire/ telephone interview): Postal or Internet
Population size:
Sample size: 10,500.
Survey response rate:
Method used to impute for missing data:
Variable used for grossing-up to the population (e.g. turnover/ employment):
Sample coverage, as % in terms of variable used for grossing-up (e.g. sample covers 60% of employment recorded on the sampling frame): Exhaustive
Main variables collected: <b>Structures</b> The EHPA survey specifies the general characteristics of the establishments and their activity: number of places, number of people present on 31 December of the financial year, number of arrivals and departures during the year, distribution of residents per level of dependency, temporary accommodation, day care, night care. It also covers more regulatory aspects: signature of a tripartite agreement, social welfare authorisation and the prices of accommodation, treatments and dependency. <b>Personnel</b> The survey provides information about the main post held, gender, age and full-time equivalent of each person. <b>Residents</b> The survey reveals the age, gender, date of entry, previous housing and dependency level, broken down according to the discriminating variables of the AGGIR

(Autonomy, gerontology and iso-resource groups). For residents that have left during the year, the survey also provides information about the departure date, entry date, age and destination after departure.

#### **Building and facilities**

The survey describes all of the facilities in the bedrooms and communal areas.

#### **Pathologies**

The survey provides a description of all pathologies of a sample of residents, itself derived from a sample of establishments.

Further adjustments made to the survey data:



"Chapitre 10 -  
Annexe 4 - EHPA 201

### **3. National housing survey**

Every six or seven years, INSEE conducts a survey of several tens of thousands of dwellings. This survey reveals the characteristics of housing and its occupants, and the rental fees when the housing is rented. The data are used to evaluate both the actual and imputed rents, on the basis of a stratification allowing for the separation of different types of housing into specific strata, such as social housing.



"Chapitre 10 -  
Annexe 5 - ENL 2013

Name of survey: <i>Enquête Logement</i> (Housing Survey) 2013
Link to surveys undertaken at the European level (e.g. structural business statistics): None
Reporting units (e.g. enterprise/ local KAU/ household): Households
Periodicity (e.g. annual/quarterly/other- to be specified): every 7 years
Time of availability of results (e.g. 18 months after the end of the survey period): 24 months
Sampling frame: (e.g. name of business register used/ population census): Census
Survey is compulsory or voluntary? Compulsory
Main features of survey methodology (e.g. PPS sampling/ panel of respondents/ use of a size threshold for sampling/ postal questionnaire/ telephone interview): Postal or Internet
Population size:
Sample size: 54,000.
Survey response rate:
Method used to impute for missing data:
Variable used for grossing-up to the population (e.g. turnover/ employment):
Sample coverage, as % in terms of variable used for grossing-up (e.g. sample covers 60% of employment recorded on the sampling frame):
Main variables collected: The Housing survey sets out to describe the housing conditions of households and their expenditure on housing. The survey supplements the information given by censuses, which do not contain financial data: rents, charges, financing plans and incomes. It also includes a more detailed description of the quality of housing for households. It has multiple uses: structural framework data, study of precise sub-populations and modelling of behaviours, semi-economic analyses or pseudo panel analyses based on chronological comparisons of successive surveys.
Further adjustments made to the survey data:

#### 4. The arrangements for surveys on R&D

The statistical office of the French Ministry for Higher Education and Research produces annual surveys of the resources committed to R&D. These surveys cover both private enterprises and public bodies. They aim to identify internal and external expenditure, the numbers of researchers and research support staff, and the financing received.

Name of survey: <i>Enquête annuelle sur les moyens consacrés à la recherche et au développement dans les entreprises</i> (Annual survey of resources committed to research and development in enterprises)
Link to surveys undertaken at the European level (e.g. structural business statistics): European regulation
Reporting units (e.g. enterprise/ local KAU/ household): Enterprises
Periodicity (e.g. annual/quarterly/other- to be specified): Annual
Time of availability of results (e.g. 18 months after the end of the survey period): 6 months
Sampling frame: (e.g. name of business register used/ population census): SIRENE
Survey is compulsory or voluntary? Compulsory
Main features of survey methodology (e.g. PPS sampling/ panel of respondents/ use of a size threshold for sampling/ postal questionnaire/ telephone interview): Internet
Population size:
Sample size: 11,000.
Survey response rate:
Method used to impute for missing data:
Variable used for grossing-up to the population (e.g. turnover/ employment):
Sample coverage, as % in terms of variable used for grossing-up (e.g. sample covers 60% of employment recorded on the sampling frame):
Main variables collected: The aim of the survey of resources committed to research and development is to ascertain the resources devoted to research by enterprises in terms of domestic and foreign expenditure, numbers of researchers and research support staff, and funding received. Every two years, a mandatory section on researchers/engineers is associated with it in order to answer the optional question on the number of researchers. The survey is associated with Regulation no. 995/2012 of the Commission of 26 October 2012 implementing decision no. 1608/2003/EC of the European Parliament and Council relating to the production and development of Community statistics on science and technology.
Further adjustments made to the survey data:



"Chapitre 10 -  
Annexe 6.1 - R&D fir



"Chapitre 10 -  
Annexe 6.2 - R&D Pu

Name of survey: <i>Enquête annuelle sur les moyens consacrés à la recherche et au développement dans les associations et les groupements d'intérêt public</i> (Annual survey of resources committed to research and development in associations and public interest groups).
Link to surveys undertaken at the European level (e.g. structural business statistics): European regulation
Reporting units (e.g. enterprise/ local KAU/ household): enterprises
Periodicity (e.g. annual/quarterly/other- to be specified): Annual
Time of availability of results (e.g. 18 months after the end of the survey period): 6 months
Sampling frame: (e.g. name of business register used/ population census): Administrative files
Survey is compulsory or voluntary? Compulsory
Main features of survey methodology (e.g. PPS sampling/ panel of respondents/ use of a size threshold for sampling/ postal questionnaire/ telephone interview): Internet
Population size:
Sample size: 320.
Survey response rate:
Method used to impute for missing data:
Variable used for grossing-up to the population (e.g. turnover/ employment):
Sample coverage, as % in terms of variable used for grossing-up (e.g. sample covers 60% of employment recorded on the sampling frame):
Main variables collected: Ascertain the resources committed to research by associations and public interest groups in terms of domestic and foreign spending, numbers of researchers, research support staff and funding received for this research expenditure.
Further adjustments made to the survey data:

## **ANNEX 1      GNI PROCESS TABLE**

The Excel file below contains the Process tables.

To facilitate their interpretation and propose a Process table structure that is consistent with the method used for producing the French national accounts, there are six tabs specifying the quantitative Process tables for the following institutional amalgamations:

S.11-S.14AA Non-financial corporations (S.11) and non-financial unincorporated enterprises (S.14AA)

S.12-S.14AF Financial corporations (S.12) and financial unincorporated enterprises (S.14AF)

S.13            General government

S.14B           Pure households (S.14 excluding the activity of households as unincorporated enterprises)

S.15            Non-profit institutions serving households (S.15)

S.2             Rest of the world

The quantitative 'Data (Layer 1)' tab is equal to the sum of these 6 institutional tabs.



"Process Tables.xls"