Household income, consumption and savings per broad category between 2011 and 2015

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Household surveys are used to enrich descriptions of household income and consumption and to study disparities between different types of household, looking beyond the mean values calculated for the national accounts. This focus presents a breakdown of household accounts for 2011 according to standard of living, age, socioprofessional category of the household reference person and composition of the household. The disposable income of the wealthiest 20% of households is almost four times higher than that of the poorest 20%. Differences in consumption are smaller, with the result that the savings ratio increases with the standard of living.

The breakdown of the account consists in distributing each component of income or consumption between the categories of household. For a fixed distribution, the annual change in these components affects each category differently. When simulated by nowcasting over the period 2012-2015, this effect is considerable: it reduces the gaps between standard of living quintiles quite significantly over the beginning of the period (2011-2013), then to a lesser extent thereafter.

The national accounts measure the major macroeconomic aggregates (income, consumption, savings) exhaustively and in a coherent and harmonised conceptual framework at international level, and describe changes that occur. However, as they use a macroeconomic approach that only considers one representative household, they provide no information on the disparities that exist between households.

Household surveys, on the other hand, provide data on income and consumption at microeconomic level so that disparities between different categories of household can be studied. By carefully comparing the scope, concepts, and definitions selected in the surveys with those adopted by the national accounts, the two approaches can be combined to obtain a household account by category *(Box 1)*.

A study of this type has already been carried out for 2003 (Accardo *et al*., 2009). The same procedure is used here, broadly speaking, to obtain accounts by household category for 2011. In addition, this breakdown is nowcast to the years 2012-2015: keeping the relative differences observed between household categories for 2011 for each detailed component of disposable income and consumption, the overall level is changed, as shown in the national accounts produced for 2012-2015. As each component has a different weight in income or consumption according to household category, these changes affect disparities between households.

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The weight in disposable income of net transfers received as income from assets varies considerably from one household category to another

Disposable income combines several types of income (earned income, benefits, income from assets), from which taxes and contributions are deducted. All in all, the method used to break down the accounts distinguishes 33 income components (excluding private transfers between households, which are considered later).

Using data collected by the statistical surveys on income and living conditions (SILC) and the Tax and Social Income Survey (ERFS) *(Box 1)*, the total for each of these components, as evaluated in the national accounts in 2011, can be distributed between households according to the standard of living quintile[1] to which the household belongs, the 10-year age range of the household reference person, their socioprofessional category and finally the household composition broken down into six modalities. The weight of the different components in the total income varies according to the category under consideration. For more clarity, the analysis will define three main components of income:

Net earned income: this includes net wages (gross wages minus all employee contributions, including those paid for complementary medical insurance) and the net income of sole proprietors. It represents 60% of disposable income, of which 54% for net wages.

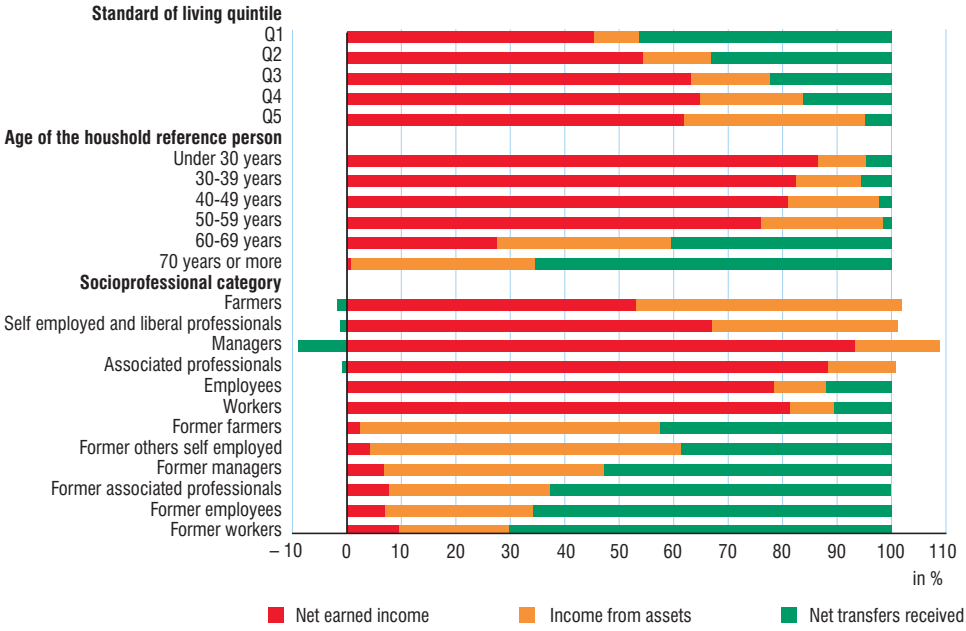
Income from assets: this includes, on the one hand, financial income, i.e. net interest received, distributed income of corporations (including dividends), other investment income and income from land and mineral deposits; and on the other hand, dwelling income which includes real estate income received by landlords, but also income imputed to owner-occupiers (imputed rents). Income from assets represents 21% of disposable income, of which 7% for financial income and 14% for dwelling income.

Net transfers received: on the positive side these include cash benefits and on the negative side current taxes on income and wealth, and also any remainder from other current transfers.[2] Social benefits represent 32% of disposable income. They include old-age and unemployment benefits, daily allowances for sickness, maternity benefits, paternity benefits, benefits for disability and death, family allowances and the statutory minimum income. Current taxes (income tax, CSG, CRDS, wealth tax, local residence tax, etc.) represent 14% of disposable income. Net transfers received therefore represent 18% of this.

Income from assets and received transfers are the most unevenly distributed components across the standard of living quintiles[3] *(Figure 1)*. The wealthier a household, the greater the weight of income from assets and the lower that of net transfers. For the wealthiest, those in the fifth quintile, income from assets represents one third of disposable income, and net transfers received 5%. For the least well-off, those in the first quintile, the weight of net transfers received (46%) is high, it is even slightly higher than net earned income (45%). On the one hand, family benefits and the statutory minimum income are concentrated in the least well-off, and on the other hand, the progressive nature of taxes (especially the income tax scale) account for these differences.

1. In this study, the term "standard of living" refers to the household's disposable income (excluding Financial Intermediation Service Indirectly Measured, FISIM) as defined in the national accounts *(Box 1)* divided by the number of consumption units. It includes resources (especially imputed rents) not included in the definition of standard of living used in microeconomic studies by INSEE (Boiron, Huwer, Labarthe, 2016).
2. Excluding private transfers.
3. For convenience, in this report the "(standard of living) quintile" refers to a set of households (and not a particular quantile of standard of living distribution). For example, the first standard of living quintile refers to the poorest fifth of households, the second quintile represents the following fifth, etc.

1. Weight of main components of disposable income (excluding private transfers) in 2011



Scope: ordinary households resident in France; income, excluding financial intermediation services (FISIM) and private transfers.
Note: contributions are deductions and are preceded by a negative sign, earned income gross of contributions can represent more than 100% of disposable income.
Source: Insee, national accounts, 2010 base, EU-SILC 2012 survey, ERFS 2011.

The share of income from assets also increases with age (it exceeds 30% for the over-60s). It is composed mainly of imputed rents[4] for the poorest categories, such as retired employees and workers, with more financial income for retired white-collar workers and self-employed. Among the labour force, net transfers received by workers and employees contributed a little more than 10% to their disposable income. However, managers receive less in benefits than they pay in taxes, thus net transfers received contribute negatively to their disposable income (-9%).

Taking private transfers into account reduces differences in disposable income

The national accounts consider households as a single sector and ignore any internal transfer that does not correspond to output of some kind: gifts from one household to another, amounts corresponding to the resale of second-hand goods by one household to another. However, these transfers, referred to in this study as "private transfers", are included in the accounts by category, and these do distinguish between different types of household. As a proportion of these transfers take place in households in collective accommodation (and hence are outside the scope of ordinary households used in this study), the average disposable income per consumption unit (CU) of ordinary households after transfers is slightly lower (0.4%) than before transfers.

4. For the national accounts, a household that owns and occupies its main residence holds a wealth asset that earns income. This income is set at equal to the rent that the household would receive if it were to rent out the property. In return, for the household this rent is housing expenditure. As the same amount is *imputed* to the household's consumption and, at the same time, to its income, this accounting operation does not change the household's savings level.

When private monetary transfers between households are taken into account this reduces the gap slightly. These transfers mainly benefit the least well-off, and especially young people. They improve the disposable income of households in the first quintile by 6% and that of households where the reference person is aged under 30 by 8% *(Figure 2)*.

2. Disposable income per consumption unit (CU) including private transfers in 2011

	Disposable income per CU (in euros)	Disposable income including private transfers per CU (in euros)	Correction of the disposable income per CU
Standard of living quintile			
Q1	14,250	15,137	6
Q2	20,600	20,753	1
Q3	25,510	25,373	– 1
Q4	32,164	31,983	– 1
Q5	54,682	53,370	– 2
Age of the houshold reference person			
Under 30 years	22,160	23,958	8
30-39 years	27,831	28,739	3
40-49 years	29,871	29,859	0
50-59 years	33,164	32,569	– 2
60-69 years	32,119	31,066	– 3
70 years or more	27,084	26,007	– 4
All	**29,382**	**29,264**	**0**

Scope: ordinary households living in France. Income excluding FISIM and private transfers.
Source: Insee, national accounts, 2010 base, EU-SILC 2012 survey, ERFS 2011, household budget 2010 survey.

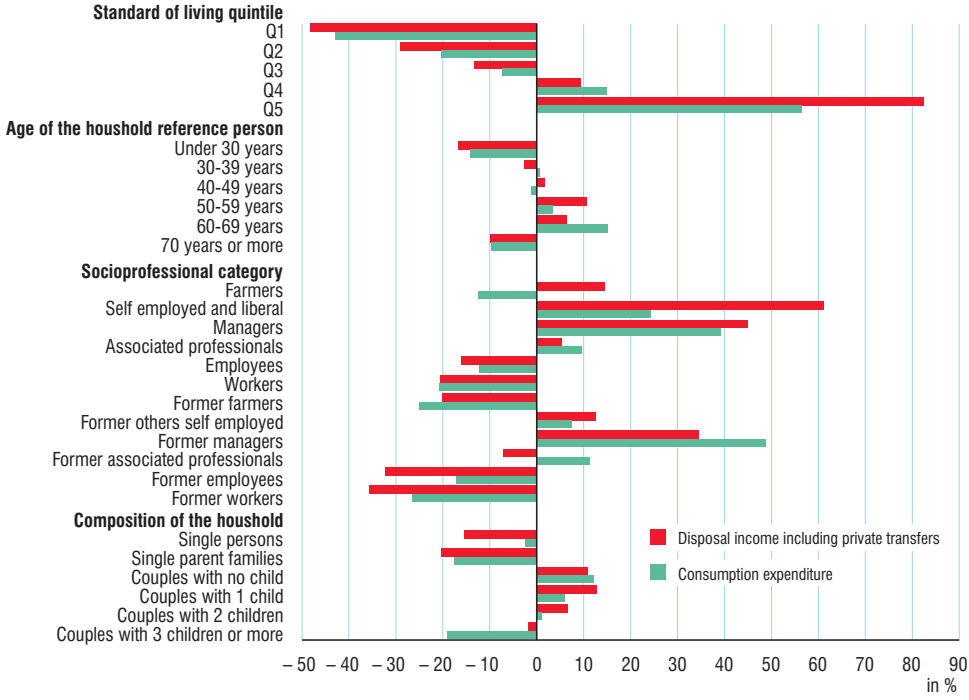
Standard of living and socioprofessional category largely determine consumption level

A household's disposable income finances its consumption expenditure, the difference between the two representing savings for the year, which may be positive or negative. In the national accounts, household consumption corresponds to the expenditure that households can effectively cope with (excluding services provided by public administrations such as health care, spending on education or housing). In 2011, measured in consumption units, disposable income after transfers was €29,264 on average and consumption expenditure was €24,368.

As was the case for income, the breakdown of accounts distinguishes many components of consumption: 40 items of goods and services are considered. For each one, the Household Budget Survey 2010 shows the share consumed by the different categories of household, and hence, by adding these items together, the share of total consumption for each category.

Disparities in consumption levels between the first and last quintiles (ratio 2.7) are lower than those for disposable income after transfers (ratio 3.5) *(Figure 3)*. Income and consumption levels also depend to a large extent on socioprofessional category. The households of managers have an income per consumption unit 83% greater than that of households of manual workers, and their consumption is 76% greater. The standard of living of households of craftsmen, retail traders, company directors and the self-employed is 61% higher than average, while their consumption is only 24% higher. Indeed, these households reinvest a substantial proportion of their income in their business assets.

3. Differences in average disposable income and consumption per consumption unit in 2011



Scope: ordinary households living in France. Income excluding FISIM and private transfers.
Source: Insee, national accounts, 2010 base, EU-SILC 2012 survey, ERFS 2011, household budget 2010 survey.

Overall, the age of the reference person, like the composition of the household, influences income and consumption less than standard of living or socioprofessional category. The standard of living of young households (under 30 years old) is 17% lower than average, while that of the baby-boom generations is higher than average (by 11% for 50-59-year-olds and by 6% for the 60-69-year-olds), with high levels of consumption for young pensioners.

More than one third of the disposable income of the poorest goes on pre-engaged expenditure

Three major consumption items account for more than half of household expenditure: housing (rent, water, electricity, heating, etc.), food (at home, excluding alcoholic beverages) and transport. Housing expenditure is the largest item, representing almost a quarter of disposable income. Although the share of expenditure on housing varies relatively little compared with household standard of living, there are considerable differences between imputed and real rents. The higher the standard of living, the more the share of imputed rents increases as more households are homeowners. The opposite is true for real rents, even after deduction of housing benefits.[5] Food comes in second position for the poorest 20% of households whereas transport comes second for the wealthiest 20% of households. The weight of food varies even more according to socioprofessional category. The share of

5. In national accounting, only the out-of-pocket expenditure that is really paid by households is included in their consumption expenditure.

consumption expenditure spent on transport also varies with age and household composition: the presence of children causes it to increase, retirement brings it down (three points less compared with those in the labour force).

These differences in consumption behaviour between household categories affect the arbitrable income, i.e. the income a household has once the "pre-engaged expenditure" has been deducted (expenditure on housing, telecommunication services, insurance, financial services, etc.):[6] in 2011, pre-engaged expenditure made up 34% of the household consumption budget, or 28% of their disposable income. The share of disposable income represented by this pre-engaged expenditure decreases when the standard of living improves *(Figure 4)*. The difference in arbitrable income (per CU) between the poorest 20% and the wealthiest 20% reaches an average of 4.1 compared with 3.5 in terms of disposable income.

4. Pre-engaged expenditure according to the standard of living quintile in 2011

	Q1	Q2	Q3	Q4	Q5	All
Average disposable income including private transfers per CU (in euros)	15,137	20,753	25,373	31,983	53,370	**29,264**
Average pre-engaged expenditure per CU (in euros)	5,180	6,820	8,010	9,400	12,110	**8,290**
Average "arbitrable" income per CU (in euros)	9,957	13,933	17,363	22,583	41,260	**20,974**
Pre-engaged expenditure (% of disposable income including transfers)	35	33	31	29	23	**28**
Housing	26	24	24	23	18	**22**
including : rents (real or imputed)	*18*	*17*	*18*	*17*	*13*	***16***
other expenditures (water, gas, electricity...)	*8*	*7*	*6*	*6*	*5*	***6***
Telécommunications services	4	3	3	2	2	**3**
Insurance and financial services	5	5	4	4	3	**4**

Scope: ordinary households living in France. Income excluding FISIM and private transfers.
Source: Insee, national accounts, 2010 base, EU-SILC 2012 survey, ERFS 2011, household budget 2010 survey and authors calculation.

Unequal distribution of savings partly offset by private transfers

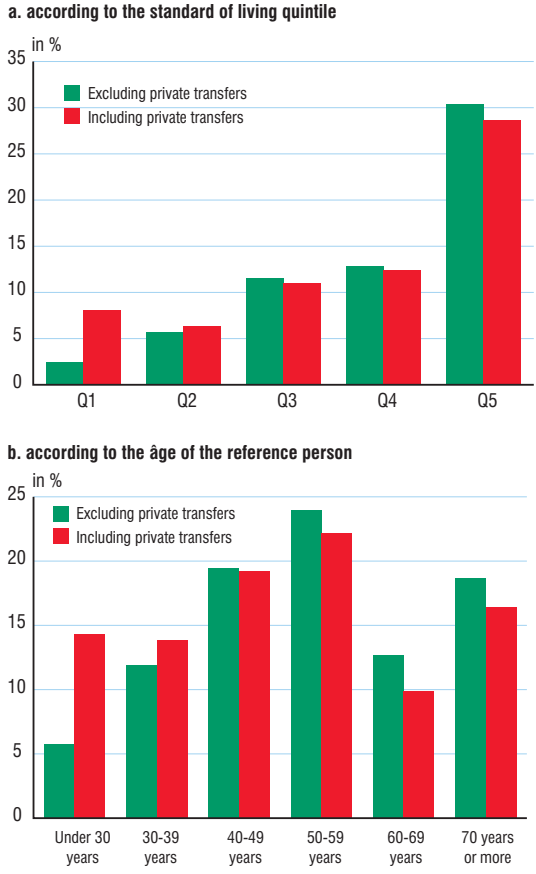
Household savings correspond to what is left from household income once all consumption expenditure has been paid. There are several reasons why a household may choose to save rather than consume, once the pre-engaged and indispensable expenditure has been covered: they may invest or acquire high-value goods, protect themselves against life's hazards, professional hazards in particular, save for retirement, or something to pass on to their children. In 2011, an ordinary household saved on average €5,014 per consumption unit, or 17.1% of its disposable income.

The savings ratio (excluding private transfers) increases along the standard of living scale *(Figure 5a)*: for the poorest 20% the rate is estimated at 2.4% on average, and for the wealthiest 20% at 30.3%. Among the working population, the savings ratio excluding private transfers increases with age and reaches a peak for the 50-59-year-olds who save on average almost a quarter of their income *(Figure 5b)*. This result is generally consistent with the results from the Household Wealth Survey in 2011 (which included a module on consumption) (Garbinti and Lamarche, 2014).

The introduction of private transfers between households had a very significant impact on the savings ratio for the poorest 20% of households, as this estimate increased from 2.4% to

6. For an evaluation of this expenditure, see the tables disseminated every year by INSEE (https://www.insee.fr/fr/statistiques/2540922?sommaire=2417962).

5. Breakdown of saving ratio according to the category of the household in 2011



Scope: ordinary households living in France. Income excluding FISIM and private transfers.
Source: Insee, national accounts, 2010 base, EU-SILC 2012 survey, ERFS 2011, household budget 2010 survey.

8.1% after private transfers were included. Private transfers also significantly increased the savings ratio of the youngest (under-30s), from 5.7% to 14.3%. On the other hand, private transfers had the effect of decreasing the savings ratio of those aged 50 or over.

Nowcasting to forecast the breakdown of the household account from 2012 to 2015

It would be interesting to compare the results of this breakdown of the household account for 2011 with fiscal year 2003 (Accardo *et al.*, 2009), in order to analyse any disparities in trends in income, consumption and savings between household categories between 2003 and 2009. Unfortunately, this is an unattainable goal for technical reasons linked mainly with methodological changes introduced into the SILC survey *(Box 2)*.

Other recent studies have been undertaken for long-run analyses of disparities between households, while adjusting aggregates on the basis of the national accounts: this was the case for the assessment of the National Transfer Account (NTA) for the period 1979-2001 by d'Albis *et al*. (2017) based on successive Household Budget Surveys, and on very long-run studies analysing inequalities in income and wealth, carried out by Piketty (2014) with data from the World Income Database (WID). The approach of these authors is different, however, as they focus on understanding trend changes over several decades: the

transfer accounts therefore highlight a generational analysis angle. From this perspective, the impact on the results of possible breaks occurring occasionally in the sources on which the breakdowns are based can be considered secondary. Moreover, the distributional national accounts constructed for the period 1900-2014 from WID data (Garbinti *et al.*, 2016) propose using a breakdown by category not of the household account, but of the national income overall (with the breakdown limited for the time being to primary income).

In contrast, the present article attempts to quantify the changes in disparities in income, consumption and savings within a much smaller window (four years): the continuity and the accuracy of the sources on which the breakdown is based are much more important. Hence neither the SILC survey (which underwent a major change in methodology during the 2000s) nor the Household Budget Survey (which has undergone fewer changes than SILC from one version to the next but which nevertheless describes income in much less detail) can be used to quantify the change in accounts by category since the first study was carried out in 2003.

However, it is possible to extrapolate the disaggregation of the year from 2011 based only on changes in the aggregates (at the most detailed level possible) of the national accounts. In this way it is possible to anticipate the share of changes due to national accounting data by assuming that the inter-household distribution remained the same from 2011 to 2015 for a given component of income or consumption. This is what is called the "structure effect" as opposed to the microeconomic effect of a change in the household distribution of a component of disposable income or of household consumption. On the other hand, the nowcasting simulation, does fully take into account the differentiated change in the number of households between the different categories over the simulation period.

For example, if income from assets increases more quickly than disposable income, the income of the wealthiest households will tend to increase more quickly than average assuming that the distribution of income from assets remains identical between households. This is due to the fact that the weight of income from assets is greater for the wealthiest households.[7]

A trend towards an overall reduction in inequalities between 2011 and 2015

Between 2011 and 2015, the average disposable income per household increased in value[8] by 0.1% *(Figure 6)*. Net earned income increased by 0.7%. Income from assets dropped by 1.2%, and in this category financial income (the most unequally distributed) fell by 11.9%, which contributed to reducing the income of the wealthiest households (essentially the fifth quintile). Net transfers received fell by 0.4%. On the positive side for income, benefits increased by 7.5% and on the negative side taxes soared by 14.6%. Since benefits (in relation to income) were more advantageous to the poorest households and taxes weighed more heavily on households where incomes were high, these changes made a considerable

7. Note that at the time of writing, the annual microeconomic information on disposable income stopped at 2013. Using changes in the income structure observed in ERFS 2012 and 2013 and SILC 2013 and 2014, which cover incomes for 2012 and 2013, would have created a gap between processing the structure of the income and processing the structure of consumption (as the Household Budget Survey, which is five-yearly, is only available for 2011) and a break in the nowcasting method in the middle of the period being studied. In the study, we preferred to avoid this complexity in carrying out the projection and in interpreting the results obtained. In addition, it will be possible to check that the structure of the differences between each type of income in the categories of households considered changes very little annually: for example, between 2011 and 2012, the share of each standard of living quintile in wages varied, according to ERFS 2011 and ERFS 2012, by not more than 0.3 points. The results of this study will nevertheless be compared (see below) with those produced from the most recent ERFS surveys.

8. In all sections it seemed simpler to comment on changes in value: results in terms of disparities between categories are identical whether we are considering value or volume, as there are no specific deflators for the different income components.

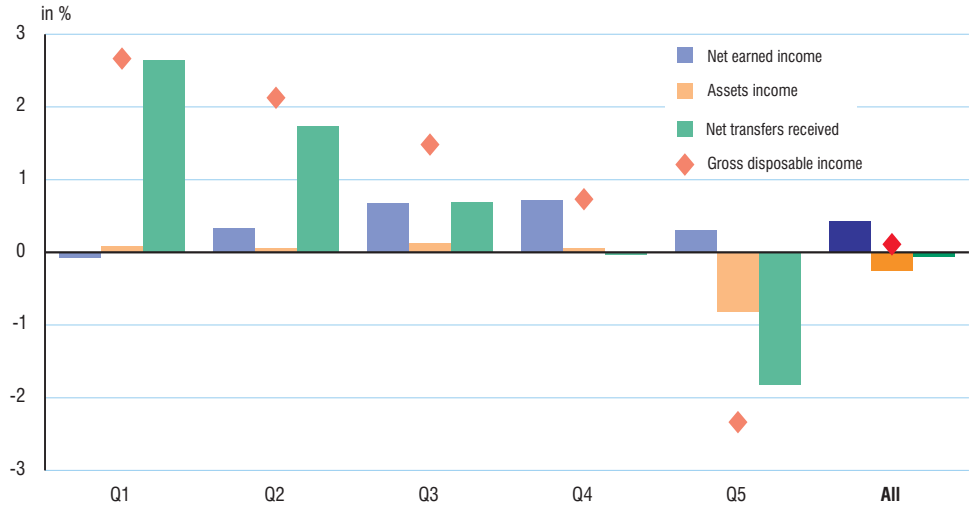
contribution to bringing inequalities down. The reduction in inequalities between 2011 and 2015 was due mainly to the change in net transfers (increase in benefits received by the poorest households and taxes paid by the wealthiest households) and to a lesser extent to the change in the financial income of the wealthiest households *(Figure 7)*.

The savings ratio of households dropped by 1.4 points between 2011 and 2015 *(Figure 6)*. This decline mainly occurred between 2011 and 2013 (-1.3 points), at the time when

6. Change in disposable income, consumption and savings ratio between 2011 and 2015

Scope: ordinary households living in France. Income excluding FISIM and private transfers.
Source: Insee, national accounts, 2010 base.

7. Contribution to the gross disposable income changes between 2011 and 2015



Scope: ordinary households living in France. Income excluding FISIM and private transfers.
Source: Insee, national accounts, 2010 base.

disposable income was decreasing while consumption continued to increase slightly. Overall, consumption changed at the same pace for the five quintiles of households, hence the savings ratios increased for the poorest households and decreased for the wealthiest households.

Between 2011 and 2013, income inequalities tended to fall sharply and consumption by the households with the lowest standard of living increased more quickly than the average. Between 2013 and 2015, however, the growth in incomes converged between household categories, although the income of the wealthiest still grew at a slower pace, while their consumption accelerated.

Very different changes in disposable income between 2011 and 2013

The disposable income of households in the highest standard of living quintile decreased by 2.1% while that of the lowest quintile increased by 1.8% *(Figure 8)*. There was a pronounced drop in financial income (-7.3%), mainly as a result of income from life insurance policies in 2012, then dividends and interest received in 2013. This affected the wealthiest households primarily and contributed to half of the drop in income for the top quintile. The rise in taxes (+12.4%) and in benefits (+5.0%) also led to a substantial reduction in inequalities between households.

The income of sole proprietors fell dramatically, by 8.3%; the drop was spectacular for households of farmers, especially between 2012 and 2013 (-12.7%).

8. 2011-2013 changes in the gross disposable income and contributions

in %

	Q1	Q2	Q3	Q4	Q5	All
2011-2013 changes						
Gross adjusted disposable income	**1.8**	**1.3**	**0.8**	**0.2**	**– 2.1**	**– 0.1**
Social benefits in kind	2.4	2.3	2.3	2.3	2.4	**2.3**
Gross disposable income	**1.4**	**1.0**	**0.4**	**– 0.2**	**– 2.7**	**– 0.7**
Net earned income	**– 0.9**	**– 0.3**	**0.0**	**0.0**	**– 0.6**	**– 0.3**
Net wages	0.5	0.5	0.6	0.7	0.7	**0.6**
Net income of sole proprietors	– 4.8	– 5.4	– 7.3	– 10.7	– 10.4	**– 8.3**
Income from assets	**1.3**	**0.7**	**0.7**	**0.5**	**– 1.5**	**– 0.6**
Financial income	– 6.0	– 7.5	– 8.7	– 7.2	– 7.2	**– 7.3**
Dwelling income	3.0	3.0	2.9	2.9	2.9	**2.9**
Net transfers received	**3.8**	**3.3**	**1.2**	**– 2.1**	**– 36.0**	**– 2.0**
Social benefits	4.4	5.1	5.1	5.1	5.2	**5.0**
Taxes	9.6	11.8	12.2	12.4	12.7	**12.4**
Other tranfers	16.7	26.3	26.4	36.1	– 15.0	**– 161.1**
Final consumption expenditure	**1.4**	**1.0**	**1.0**	**0.7**	**0.5**	**0.8**
Contributions to the GDI 2011-2013 changes						
Net earned income	**– 0.4**	**– 0.2**	**0.0**	**0.0**	**– 0.4**	**– 0.2**
Net wages	0.2	0.3	0.4	0.4	0.4	**0.3**
Net income of sole proprietors	– 0.6	– 0.4	– 0.3	– 0.4	– 0.8	**– 0.5**
Income from assets	**0.1**	**0.1**	**0.1**	**0.1**	**– 0.5**	**– 0.1**
Financial income	– 0.1	– 0.2	– 0.2	– 0.3	– 1.0	**– 0.5**
Dwelling income	0.2	0.3	0.3	0.4	0.5	**0.4**
Net transfers received	**1.7**	**1.1**	**0.3**	**– 0.3**	**– 1.8**	**– 0.4**
Social benefits	2.3	2.1	1.7	1.5	1.3	**1.6**
Taxes	– 0.5	– 0.8	– 1.2	– 1.6	– 2.9	**– 1.8**
Other tranfers	– 0.1	– 0.2	– 0.2	– 0.3	– 0.3	**– 0.2**

Scope: ordinary households living in France. Income excluding FISIM and private transfers.
Source: Insee, national accounts, 2010 base.

The consumption of low-income households increased faster than that of the wealthiest households. Consumption of housing services (+5.4%), food (+4.3%), alcohol and tobacco (+3.3%), increased substantially more than total consumption (+0.8%) in value, and the weight of this consumption was greater in the poorest households. Conversely, consumption of leisure and hotels, which have a stronger weight in high-income households, dropped (-4.7% and -0.3% respectively).

Less contrasting changes in disposable income between 2013 and 2015 with more vigorous consumption by the wealthiest households

Between 2013 and 2015, income growth rates, between +0.6% and +1.6% depending on the quintile, tightened *(Figure 9)*. The slower increase in taxes and the slowdown in benefits limited income redistribution. The net income of sole proprietors picked up more for households in the highest quintiles but stagnated for the first quintile. Financial income dropped less than during the preceding period, and in addition, this fall affected the highest quintile less since it was essentially income from life insurance (spread less unevenly than dividends) that decreased.

9. 2013-2015 changes in the gross disposable income and contributions

in %

	Q1	Q2	Q3	Q4	Q5	All
2013-2015 changes						
Gross adjusted disposable income	**1.6**	**1.4**	**1.4**	**1.2**	**0.6**	**1.1**
Social benefits in kind	2.2	2.4	2.4	2.3	2.3	**2.3**
Gross disposable income	**1.2**	**1.1**	**1.1**	**1.0**	**0.3**	**0.8**
Net earned income	**0.8**	**0.9**	**1.0**	**1.1**	**1.1**	**1.0**
Net wages	0.9	0.9	1.0	1.0	1.0	**1.0**
Net income of sole proprietors	0.3	0.7	1.7	3.1	2.5	**1.8**
Income from assets	**– 0.2**	**– 0.2**	**0.1**	**– 0.2**	**– 1.0**	**– 0.6**
Financial income	– 6.9	– 6.5	– 6.0	– 5.8	– 4.6	**– 5.0**
Dwelling income	1.3	1.4	1.4	1.4	1.4	**1.4**
Net transfers received	**1.9**	**1.9**	**1.9**	**1.9**	**– 1.8**	**1.7**
Social benefits	2.4	2.4	2.4	2.3	2.2	**2.3**
Taxes	4.0	2.4	2.1	1.9	1.7	**1.9**
Other tranfers	37.8	20.4	13.6	15.0	– 16.7	**221.8**
Final consumption expenditure	**0.5**	**0.7**	**0.8**	**1.0**	**1.2**	**0.9**
Contributions to the GDI 2013-2015 changes						
Net earned income	**0.3**	**0.5**	**0.6**	**0.7**	**0.7**	**0.6**
Net wages	0.3	0.4	0.6	0.6	0.5	**0.5**
Net income of sole proprietors	0.0	0.1	0.1	0.1	0.2	**0.1**
Income from assets	**0.0**	**0.0**	**0.0**	**0.0**	**– 0.3**	**– 0.1**
Financial income	– 0.1	– 0.2	– 0.1	– 0.2	– 0.6	**– 0.3**
Dwelling income	0.1	0.1	0.2	0.2	0.3	**0.2**
Net transfers received	**0.9**	**0.6**	**0.4**	**0.3**	**– 0.1**	**0.3**
Social benefits	1.3	1.0	0.8	0.7	0.6	**0.8**
Taxes	– 0.2	– 0.2	– 0.2	– 0.3	– 0.4	**– 0.3**
Other tranfers	– 0.2	– 0.2	– 0.2	– 0.2	– 0.2	**– 0.2**

Scope: ordinary households living in France. Income excluding FISIM and private transfers.
Source: Insee, national accounts, 2010 base.

While consumption in general changed at the same pace (+0.9%) as between 2011 and 2013 (0.8%), changes by type of product diverged. Consumption of food and communications fell (by -0.1% and -3.6% respectively) while consumption of hotels increased strongly (+6.9%). In contrast to the earlier period, it was the wealthiest households that consumed more. Their savings ratio weakened while that of the poorest increased.

Messages are relatively consistent with those delivered by exploiting data from the Tax and Social Income Surveys

Results from applying nowcasting techniques to the household account by category are comparable with data from the Tax and Social Income Surveys from 2011 to 2014 and when projecting them onto 2015, also by nowcasting (Schmitt and Sicsic, 2016).

This comparison is possible in particular for an indicator like the ratio of total income received by the fifth income distribution quintile to that received by the first quintile (100-S80)/S20. However, it is not applicable to the monetary poverty indicator (60% of median standard of living) calculated from these surveys (the household account by categories does not cover the notion of monetary poverty), nor even to the GINI index.

According to these surveys, inequalities decreased slightly between 2011 and 2015 (the GINI index dropping from 0.308 to 0.296 and the (100-S80)/S20 ratio from 4.7 to 4.5), which was in line with the nowcasting forecast for the household account by category. More precisely, these surveys, like the forecast for the household account by category, showed a significant reduction in inequalities between 2011 and 2013 (the GINI index dropping from 0.308 to 0.291 and the (100-S80)/S20 ratio from 4.7 to 4.3). For the sub-period 2013-2015, the messages were more divergent.[9]

All in all, the survey data and the results from the accounts by categories give similar analyses regarding change in income inequalities between households in recent years. The nowcasting technique described here of course remains much cruder than the information obtained from surveys: there is no reason for changes in the different income and consumption components to evolve in a uniform fashion for all categories of household. The relative convergence of the messages observed here tends rather to corroborate the assumption that income structure by household category becomes distorted only gradually, thus enabling approaches of the nowcasting type to provide real information at little cost on changes in inequalities in income and savings in the relatively short term (two or three years). ■

9. We saw a slight (and statistically insignificant) increase in income inequalities according to the Tax and Social Income Surveys (although the reading for 2015, also extrapolated by nowcasting, is to be revised), whereas, according to the forecast for the household account by categories, income inequalities decreased slightly.
10. However, it refers to a fuller concept of income than the disposable income used in household surveys, where the scope of the population studied is narrower, the "imputed rents" component is absent, and income from assets is covered less fully.

Box 1

Methodology for the breakdown of the household national accounts

The principle: breakdown of ordinary household accounts on the basis of survey data

The individual data collected in surveys provide information on the distribution of different components of income (wages, pensions, social benefits, etc.) and consumption (expenditure on housing, food, etc.) between different categories of household: poorest, wealthiest, age of the household reference person, etc. This distribution can be applied to the total amounts for this income and consumption, as given in the national accounts.

Thus the breakdown of the "household account" is based on data from the national accounts for 2011 and on the INSEE surveys relating to income and consumption: Statistics on income and living conditions (SILC - 2011), Tax and Social Income Survey (ERFS - 2011), Household Budget Survey (BdF - 2010-2011). The socio-demographic data needed to calculate numbers in the household categories are taken from the Labour Force Survey and matched with the number of households in the Housing satellite account.

The method: a breakdown for each component of income and consumption

Each component of disposable income and consumption expenditure was distributed by category of household in the following stages:
– the survey that could measure the component with the closest definition to that in the national accounts for the component under consideration was identified;
– average amounts were calculated for each category of household (e.g. average wage for each standard of living quintile);
– next the total amounts were calculated, by multiplying the average amounts by the number of households in each category;
– lastly, the different mass totals obtained were readjusted to the mass total in the national accounts.

In this way, for each component of disposable income and consumption expenditure, we had a breakdown of the corresponding aggregate in the national accounts by household category. The sum of these components provided the disposable income and consumption for each category; from this we can deduce their savings and savings ratio.

For the breakdown of consumption, the BdF survey is of course the most suitable. For the breakdown of income, both the ERFS and the SILC provide relatively accurate information, mainly by matching these surveys with tax and social administrative sources. Overall, the SILC survey is preferred as the information is more comprehensive than in the ERFS for certain components: the SILC contains the most accurate information for calculating social contributions, and covers certain income components in the national accounts, such as benefits in kind or interest on loans, and provides the most reliable measurement of disposable income for self-employed workers (Bellamy *et al.*, 2009). However, since the sample covered by the ERFS is four times greater, this survey provides more robust profiles by category: this source was therefore used for other components of income.

Resolving differences in concepts and scope between the national accounts and the surveys

Differences in scope

The national accounts cover the entire resident population of France. In general, surveys cover only ordinary households, i.e. people living in an independent dwelling, and not those living in collective accommodation (boarding schools, workers' hostels, retirement homes, prisons, etc.). An adjustment is made to the overall amounts in the accounts to bring them in line with the scope of the surveys.

Financial Intermediation Services Indirectly Measured (FISIM, which correspond to margin rates on deposits and loans deducted by banks) are not taken into account.

These differences in scope have little effect on the general structure of disposable income and consumption expenditure. However, the average savings ratio for ordinary households (17.1% in 2011) is 1.5 points higher than that published for the population as a whole. In fact, excluding the population living in collective accommodation reduces the mass of consumption expenditure more than income. As this population is made up for the most part of elderly people who have to fund high accommodation expenses, their dissaving rate is high.

Encadré 1 (suite)

Differences in concepts

– Gross Disposable Income (GDI), as defined in national accounting, is not collected by surveys. In fact these surveys provide poor coverage of some of the components of GDI, first and foremost social contributions. This is also the case for imputed rents (rents that owner-occupiers are deemed to pay to themselves) or for fraud.

To classify each household in a survey into its gross disposable income quintile, this income therefore has to be estimated. It is first calculated for households interviewed for the SILC survey, the source of individual data that is best-adapted to this calculation. Income that is least well covered (financial income) was subjected to econometric estimates and was realigned with the macroeconomic data. The missing components (interest on consumer loans, income from fraud, undeclared work) were distributed based on assumptions.

An explanatory equation for this disposable income was then estimated econometrically for the SILC survey, so that it could be imputed to the other surveys. It was then possible to classify households in the GDI quintile consistently between the different surveys.

– By definition, in the national accounts, the household account represents all resident households and therefore does not take into account exchanges between households, such as financial transfers (maintenance payments, financial assistance, etc.) and the resale of second-hand goods (cars, clothing, electrical goods, etc.). These transactions are not distributed uniformly between households, however, and private transfers are usually made in favour of young people (Herpin and Dechaux, 2004). They therefore need to be evaluated and taken into account when the household account is broken down.

In the framework of this study, evaluations were carried out to incorporate both private cash transfers and car purchases and sales between households. Disposable income and savings ratio were calculated both before and after taking private transfers into consideration. The global mass was derived from the Household Budget Survey (BdF), also the breakdown of average amounts received and paid by category. Transfers in kind are excluded, as are inheritances and gifts. A detailed analysis of transfers in the BdF survey highlights the impact of the extreme values on average transfers in each category. Households reporting extreme amounts of transfers received or paid were therefore excluded.

– The concept of consumption measured by the BdF survey must be increased by the expenditure corresponding to rents imputed to homeowners (to match their inclusion in income).

Results are necessarily approximate

The surveys used are conducted with random household samples. Although these are large samples (at least 12,000 households), the results produced are only estimates, marred by sampling error. In addition, the accuracy of these results is also affected by a certain number of imperfections, which are inevitable when collecting responses from households: non-response, errors in the declarations made, over- or under-estimation of certain amounts, etc. These defects are subject to statistical adjustments.

Distribution between the categories of the global masses determined by the accounts must therefore be seen as approximate. Calculating the accuracy of these estimates is a difficult methodological problem, which is currently unresolved.

While measuring household income can be based to a large extent on administrative data (tax declaration, social benefits received from social security bodies, etc.), measuring consumption expenditure is not so easy. Notably, for a considerable number of households, declared expenditure exceeds reported income. This phenomenon, which is observed in all budget surveys, both abroad and in France, requires a statistical adjustment, otherwise some very implausible results are obtained, especially for the savings ratio. There are several methods for adjusting for statistical outliers. The method used here is to take supplementary information provided by the household itself: we obtain their opinion on their financial affluence. This enables us to distinguish between those responses that are inconsistent and those where saving or dissaving really is very strong. The impact of the statistical adjustment was important for households in the first standard of living quintile as it brought up the savings ratio for this category by more than 13 points. However, the impact was marginal, even negligible, for the other quintiles and for categories based on age or social category.

Encadré 1 (suite)

A methodology under construction in the framework of an international project

The study presented in this report is an update of the previous report published in 2009 (Accardo *et al.*, 2009). Following on from this first study, which created a household account by category for 2003, the OECD, with Eurostat, brought together an international group of experts from about twenty National Statistical Institutes, specialists in national accounting or household surveys, with the aim of producing a common methodology for preparing accounts.

The work of this group (Fesseau, Mattonetti, 2013; Mattonetti, 2013; Zwijnenburg *et al.*, 2017) is ongoing, although the accounts by category created by the different participating countries are still not sufficiently comparable for the moment.[1]

1. The results concerning France presented in the last group report (Zwijnenburg et al., 2017) did not quite coincide with those in the present study: the former represented the work as in 2015, while the latter include some corrections of errors and improvements in the methodology that have been added since.

Box 2

Can we measure 2003 - 2011 changes in the accounts by household category?

In 2009, INSEE published the results of a breakdown of the household account for 2003, using seven different criteria, including the household standard of living quintile, household composition, the age of the household reference person, etc. (Accardo *et al.*, 2009). The method used in the present study was largely inspired by the earlier work. However, there are several important methodological differences between the two breakdowns.

Some differences are due to changes made in 2011 and 2014 in the base for the national accounts and to the availability of new survey data. The 2003 breakdown was carried out using base 2000 then updated to base 2005, the 2011 breakdown used base 2010 (and included the French overseas departments, DOM). Regarding the surveys, the 2003 study was based on the Tax and Social Income Survey for 2003 (ERFS 2003), Statistics on Income and Living Conditions of 2004 (SILC 2004), the Household Budget Survey carried out in 2005-2006 (BDF 2006), the Housing Survey 2002 (ENL 2002) and the Health Survey 2002 (ES 2002). The 2011 study used ERFS 2011, SILC 2011, BDF 2010-2011.

These methodological changes are not at all unusual, and in principle their effects can be controlled: the national accounts backcast aggregates in the new base, while in the surveys, the accuracy of the estimates makes it possible to assess whether a deviation observed over time is due to a simple fluctuation in sampling or if it reflects a real change in the socio-economic situation of individuals.

However, two other "methodological shocks" that occurred between 2003 and 2011 proved impossible to control satisfactorily. The break in series that occurred prevented any analysis of change between 2003-2011 in disparities between household categories in terms of income, consumption and savings:

1. Since 2008, household income has no longer been declared in the SILC survey, but is obtained by matching with administrative sources. The questionnaire has been reduced in size and the statistical quality of the data has improved, but this has had a massive effect on measuring income. Between SILC 2007 and SILC 2008, the 20% rise in the average standard of living (in constant euros) was almost entirely attributable to the transition to administrative data. If this rise were uniform, it would not pose any problems for the breakdown of the accounts by category which, in any case, aligns survey results with aggregates from the national accounts. However, the underestimate of income in the household responses to the surveys varied according to certain household characteristics, especially income, which significantly altered the ranking of households between standard of living quintiles:

Encadré 2 (suite)

it was estimated that more than 13% of households changed quintile simply as a result of the effect of switching to matched data. And in some quintiles, more than one fifth of households were affected. Changes of that magnitude had an impact on the relative values of income, consumption and savings ratio. Corrections were possible, but they would necessarily be based on assumptions. Depending on the choices made, savings ratios varied by several points especially in the first quintile.

2. The SILC survey plays a key role because of the wealth of information that it collects so that for each household in the sample, their gross disposable income in terms of the national accounts can be calculated. The 2003 study used the SILC survey carried out in 2004, the first data collection by this panel. The 2011 study used the survey carried out in 2011. As is often the case with panel surveys, the quality of SILC improved (mainly due to better representativeness and reliability of the responses). This phenomenon, which was clearly very positive, had an unfavourable impact on study comparability: in 2004, SILC was affected by a probable age bias, notably in the measurement of wages, with an underestimate evaluated at over 15% for the under-30s. This underestimate is distinct from the underestimate of the survey declaration described previously. It disappeared from SILC 2005 onwards (where income continued to be measured from the household's response to the survey).

The impact of the methodological differences on the main results of the studies is considerable *(Figure)*: the breakdown of the 2003 data produced a negative savings ratio (excluding private transfers) of -11.6% for the under-30s. The ratio became -14.5% if base 2010 was used for the accounts rather than base 2005 and if the incomes resulting from the probable under-declaration by certain households were corrected. It became positive (1.7%) if profiles from the SILC 2005 survey were used instead of those from 2004.

Any change between the results of the breakdown of accounts for 2003, and that carried out for this study therefore pose a problem of interpretation and it is not possible to determine the share of real economic changes and the share of changes affecting the calculation methodology.

Impact of the methodological differences on the saving rate by age group

in %

Year	National accounts base	EU-SILC year	Correction for reported data	Under 30 years	30-39 years	40-49 years	50-59 years	60-69 years	70 years or more	All
2003	2005	2004	non	– 11,6	8,0	16,0	24,6	19,2	26,7	**16,9**
2003	2010	2004	oui	– 14,5	0,3	17,9	26,8	23,4	26,7	**17,1**
2003	2010	2005	oui	1,7	1,9	20,8	25,2	17,5	23,4	**17,1**
2011	2010	2011	-	5,0	10,6	18,5	23,9	14,2	20,4	**17,1**

Scope: 2003 ordinary households living in metropolitan France; 2010 France.
Source: Insee, national accounts, 2005 base and 2010 base, EU-SILC 2004, 2005, 2011 surveys.

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