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# Estimates of property income flows in the 2014 base

The report on the cost of capital published by the CNIS (National Council for Statistical Information) in 2015 highlighted the difficulties encountered by national accounting in estimating certain types of property income, dividends in particular. The difficulty of finding a source enabling a reliable estimation of dividends within the meaning of national accounting was leading the national accountants to make partly conventional choices. This shortcoming was all the more problematic as dividends are a subject that have received particular attention in the public debate.

The switch to the 2014 base provided an opportunity, in addition to the harmonisation of the data with those of the balance of payments, to undertake large-scale methodological work on the property income flow estimates. In particular, the new method systematically uses tax data on households taken from income tax returns, as recommended in the CNIS report.

As in the 2010 base, most property income data are provided by so-called exogenous sources: which means that the final data depend exclusively on that source, and not on the method used by the national accountants to arrive at a balanced description of the different flows in accounting terms. This is the case of all general government inflows and outflows or those passing through financial institutions such as interest received or paid by households. It is also the case for income exchanged with the rest of the world, which is estimated by the balance of payments and included as it is in national accounting.[1]

Property income for which in principle no source has been used is calculated as a residual. In the 2010 base this was the case for dividends received by households and for those paid and received by non-financial corporations, the problem being that there is then an infinite number of combinations compatible in accounting terms with the rest of the income already calculated. There was therefore an uncertainty that needed to be clarified using external indicators. Accordingly, in the previous bases, the level of certain flows of dividends could be derived by analysing the rates of return obtained by calculating the ratio of property income to the total assets generating this income. The choice made in the 2014 base is to clear up this uncertainty by using household tax data to estimate the dividends that households receive in return for the shares they hold in companies.

## 1 Estimation of property income received by households in the 2014 base

### 1.1 Dividends (D.421)

In national accounting, the “distributed income of corporations transaction” (D.42) includes:
- dividends (D.421);
- withdrawals of income from quasi-corporations (D.422).

In the 2010 base and the earlier bases, income distributed by corporations subject to the IRPP (income tax on physical persons) was incorrectly recorded in D.422, whereas this income is economically a form of dividends. This anomaly has now been rectified, and in the 2014 base, no D.422 type flows appear in the "households" account.

1 At least for the 2013 and 2014 base years. On the other hand, as soon as national accounting reasoning follows a constant method, any methodological changes to the balance of payments are not used in current production, but deferred to the next base. This explains why there can be differences in the balance of distributive transactions between the balance of payments, on the one hand, and national accounting, on the other.

To ensure that the entire scope of dividends within the meaning of national accounting is covered, it is therefore necessary to have sources on the income distributed by corporations that fall into quite different legal categories and tax regimes.

The first case to be considered is that of corporations liable for corporation tax: the income distributed to households is entered by the latter in box 2DC (“income from shares”) on the physical persons income tax (IRPP) return, form no. 2042. This amounted to €13.1bn in 2013. For the years before 2013 we add to the content of this box 2DC that of box 2DA to take account of income subject to the flat-rate withholding tax (*prélèvement forfaitaire libératoire,* PFL). This box naturally disappeared in 2013 with the generalisation of taxation to the investment income tax scales.

This approach only applies, however, to shares held outside a share savings plan (*plan d'épargne en actions*, PEA), the income from shares held in a PEA generally being tax-free. An estimate of the income from shares held in a PEA was produced based on the income declared in tax return 2777, which provides the amounts of the contribution to the reimbursement of the social debt (*contribution au remboursement de la dette sociale*, CRDS) due on dividends, while isolating those collected on PEAs, namely €3.1bn in 2013. One of the limits of this source is that the base for the calculation of the CRDS includes capital gains and losses, which in national accounting should be recorded in the "changes in balance sheets" account and not in the household "allocation of primary income" account.

The second case to be considered is that of corporations liable for IRPP. These companies' income appears directly in the 2042 C PRO tax returns (self-employed professionals) of their owners (on a pro rata basis according to the fraction of the capital held by the latter), in the category into which the activity exercised falls: BIC (industrial and commercial profits), BNC (non-commercial profits) or agricultural profits. The income linked to the activity of these corporations subject to IRPP is not identifiable in the aggregated 2042 C PRO tax return, since it is mixed in with the other forms of self-employed activity, from which the income must be recorded in "household gross mixed income" (B.3G) in the "output" account and not in "dividends" (D.421) in the household "allocation of primary income" account. To overcome this difficulty, the evaluation of the dividends distributed by corporations subject to IRPP has been done on the ESANE database on the scope of these corporations subject to IRPP, by assuming that all their profit is paid out as dividends to the households that own them. The amount of the corresponding dividends stood at €12.0bn in 2013.

One of the limits of this evaluation is that it is not possible to determine with any accuracy the tax regime of each enterprise via the ESANE data. The allocation of profit variable in ESANE has been used to decide disputed cases: when an allocation of profits is observed for a company whose tax regime is apparently not determined, then it is considered as being subject to corporation tax. Otherwise, it is considered as being subject to IRPP. This approach therefore leads to a risk of overestimating the dividends paid by corporations subject to IRPP.

The sum of these three items in theory covers all the "dividend" types of income received by households. However, it includes dividends received by households from shares or bonds held indirectly through investment funds. Yet, in national accounting, this income must be recorded as a separate transaction, namely as "investment income attributable to collective investment fund shareholders" (D.443), which is estimated from bank sources. It is therefore necessary to deduct from our total the amount of the dividends actually paid on investment fund shares, which are therefore to be recorded in D.443 (€2.3bn in 2013). It should be noted that this adjustment is substantially lower than the total amount of D.443 recorded as household income (of the order of €6.5bn). Indeed, the figure recorded in D.443 is the figure before the deduction of the investment fund management fees, whereas the amounts declared in the 2042 tax return as income from investment funds are the income actually received, therefore after deduction of the management fees charged by investment funds. The difference corresponds to an output imputed as a service by the investment funds, which is offset by a household final consumption expenditure.

**Table 1: Sources used to evaluate the dividends received by households in the 2014 base (millions of euros)**

| D421_R – S14B | **2013** | **2014** |
|---|---|---|
| A – Revenus des actions et parts (décla 2042 – 2DC) | 13 124 | 13 749 |
| B – Correction Fonds d'investissement | 2 322 | 2 235 |
| C – Revenus issus des PEA (décla 2777) | 3 139 | 3 346 |
| D – Bénéfices sociétés soumises à l'IR | 12 045 | 12 422 |
| **Total (A-B+C+D)** | **25 986** | **27 282** |

*This table breaks down the estimates for the dividends (D421) received by households for the years 2013 and 2014*

1.2 Interest (D.41)

The new methodology does not only concern the estimation of dividends. Work has also been done on the interest paid and received by households, in particular to respond to a reservation issued by Eurostat in the context of the GNI notification in ESA 1995. Interest on borrowing and lending was in fact estimated indirectly using the total assets and liabilities held by households, to which an estimated rate of return on these financial instruments was applied.

Using Banque de France (BdF) data in the 2014 base makes it possible to directly observe the interest paid and received by households. The BdF also provides an estimate of interest on securities. Finally, INSEE adds the interest paid by households under financial leases, which are treated separately in national accounting.

1.3 Revisions between the 2010 base and the 2014 base

The balance of interest (D.41) received minus interest paid by households has deteriorated by about €4bn in the 2014 base. This revision is mainly due to the new method of estimating interest received on securities (less than €0.5bn) which replaces the conventional evaluation that was used in the old base (a little over €3bn).

Dividends received by households have also fallen in the new base, but much more sharply than interest. In 2013 and 2014, income distributed by corporations (D.42) to households fell by about €25bn, i.e. to a level twice as low as in the 2010 base. As Table 2 shows, in recent years, the estimate of dividends received from corporations subject to corporation tax based on tax sources has seen this figure fall by €11bn. The re-estimation of dividends received from corporations subject to IRPP on the basis of the ESANE data has brought this figure down by €14bn.

**Table 2: Revisions of property income in the "households" account**

Millions of euros

| | 2013 | | 2014 | |
|---|---|---|---|---|
| | Level in 2014 base | Revision | Level in 2014 base | Revision |
| D.41 - Balance of interest (received minus paid) | 902 | -4,029 | 954 | -3,783 |
| D.42 – Distributed income of corporations | 25,986 | -25,465 | 27,282 | -25,049 |
| *Including income received from corporations subject to corporation tax* | *13,941* | *-11,11* | *14,86* | *-10,941* |
| *Including income received from corporations subject to IRPP* | *12,045* | *-14,355* | *12,422* | *-14,108* |
| D.441 – Investment income attributable to policyholders | 47,193 | 0 | 45,985 | 0 |
| D.443 – Investment income attributable to collective investment fund shareholders | 6,491 | 0 | 6,57 | 0 |
| D.45 – Rents from land and subsoil assets (received minus paid) | 1,077 | 0 | 1,144 | 0 |

*Source: INSEE - National accounts, 2014 base*

It should be noted that the €27.3bn of dividends received by households do not include the income received by households from shares held indirectly, whether though collective investment funds (particularly in the case of employee savings schemes) or through unit-linked life-insurance plans (cf. *Appendix*). Income received from shares held indirectly is recorded in "other investment income" (D.44). Of course, the €6.6bn of income received from CIFs and the €46.0bn of investment income attributable to life insurance policyholders received by households do not correspond only to income from shares held indirectly by households, as many CIFs or life insurance policies (policies in euros) are invested in bonds.

**2 Estimation of property income flows with the rest of the world (S.2) in the 2014 base**

In most cases, the evaluations of income flows with the rest of the world in base years 2013 and 2014 were readjusted according to the data in the 2016 balance of payments report published in spring 2017.

The residual differences between national accounting and the balance of payments are due to:
- a conceptual adjustment aimed at restating instalments paid under financial leasing contracts as interest flows and loan repayments in national accounting. This has resulted in an adjustment to interest (D.41) paid by the rest of the world (for the case of aircraft made available to foreign airlines by French airlines);
- an adjustment also concerning interest. Interest must be recorded after adjustment for the output and consumption of financial intermediation services indirectly measured (FISIM). The adjustment is intended to replace the evaluation of FISIM used by INSEE with that produced by the balance of payments.

The revisions due to the readjustment to the balance of payments data are concentrated on interest, and to a lesser degree reinvested earnings on foreign direct investment (FDI). Net interest paid to the rest of the world by the resident economy have been revised downwards by about fifteen billion euros.

**Table 3: Revisions of property income received from the rest of the world**

Millions of euros

| | 2013 | | 2014 | |
|---|---|---|---|---|
| | Level in 2014 base | Revision | Level in 2014 base | Revision |
| D.41 - Balance of interest (received minus paid) | 8,165 | -15,577 | 10,015 | -14,739 |
| D.421 - Balance of dividends (received minus paid) | -28,751 | -626 | -28,8 | 665 |
| D.422 – Balance of withdrawals from income of quasi-corporations (received minus paid) | -1,056 | 0 | -1,25 | 0 |
| D.43 – Balance of reinvested earnings on foreign direct investment (received minus paid) | -1,926 | 227 | -2,557 | -1,252 |
| D.443 – Balance of investment income attributable to collective investment fund shareholders (received minus paid) | -1,338 | -1,298 | 77 | 297 |

*Source: INSEE - National accounts, 2014 base*

### 3 Revisions of property income from non-financial corporations (NFCs)

The property income in the "financial corporations" (S.12), "general government" (S.13) and "non-profit institutions serving households" (S.15) accounts have only been marginally revised. As a result the revisions made to the "households" and "rest of the world" accounts are mainly balanced out in the "non-financial corporations" account (S.11).

For each item (interest, dividends, etc.) the **net** income distributed by NFCs is therefore calculated as a residual, once the accounts of the other sectors have been stabilised. The **gross** income distributed by NFCs (interest and dividends in particular) is, on the other hand, established from independent sources, mainly ESANE.

Thus, the interest paid by NFCs is estimated on the basis of variable R231 "Financial charges: interest and similar charges" for an amount of €82.5bn in 2013 plus an adjustment to the scope to take agricultural enterprises into account (+€1.9bn) and two conceptual adjustments, one positive concerning financial leasing (+€3.0bn), the other negative, concerning FISIM. Likewise, the dividends paid by NFCs are estimated on the basis of variables B604 (for corporations subject to corporation tax, €147.5bn in 2013) and R100 (for corporations subject to IRPP, €12.0bn in 2013).

The income distributed by NFCs and the balance of income being determined, the income received by NFCs can be deduced as a residual for each item. Table 4 gives the details of the revisions. They are massive on interest, with a downward revision of net interest paid of just over €15bn, which mainly results from the alignment with the balance of payments data, and which is imputed first of all to interest received. The revisions to item D.42 are also massive: net income distributed by corporations is revised downwards by some €25bn, which is mainly connected to the revisions carried out on the dividends received by households. The D.42 paid is down about €37bn for 2013 and €23bn for 2014, while the D.42 received has been revised downwards by almost €11bn for 2013, but upwards by almost €2bn for 2014.

**Table 4: Revisions of property income in the NFC account**

Millions of euros

| | 2013 | | 2014 | |
|---|---|---|---|---|
| | Level in 2014 base | Revision | Level in 2014 base | Revision |
| D.41 paid | 71,86 | 6,85 | 72,027 | 6,124 |
| D.41 received | 58,557 | 23,801 | 57,281 | 21,43 |
| D.41 balance | 13,303 | -16,951 | 14,746 | -15,306 |
| D.421 paid | 159,522 | -10,687 | 172,867 | 3,758 |
| D.421 received | 140,061 | -10,735 | 148,231 | 1,797 |
| D.421 balance | 19,461 | 48 | 24,636 | 1,961 |
| D.422 paid | 481 | -26,4 | 550 | -26,53 |
| D.422 received | 1,537 | 0 | 1,8 | 0 |
| D.422 balance | -1,056 | -26,4 | -1,25 | -26,53 |
| D.43 paid | 4,378 | 1,566 | 5,178 | 3,421 |
| D.43 received | 5,7 | 2,266 | 6,263 | 4,142 |
| D.43 balance | -1,322 | -700 | -1,085 | -721 |
| D.441 received | 809 | 0 | 844 | 0 |
| D.443 received | 2,673 | -1,335 | 2,532 | -2,176 |
| D.45 paid | 3,801 | 315 | 3,897 | 224 |

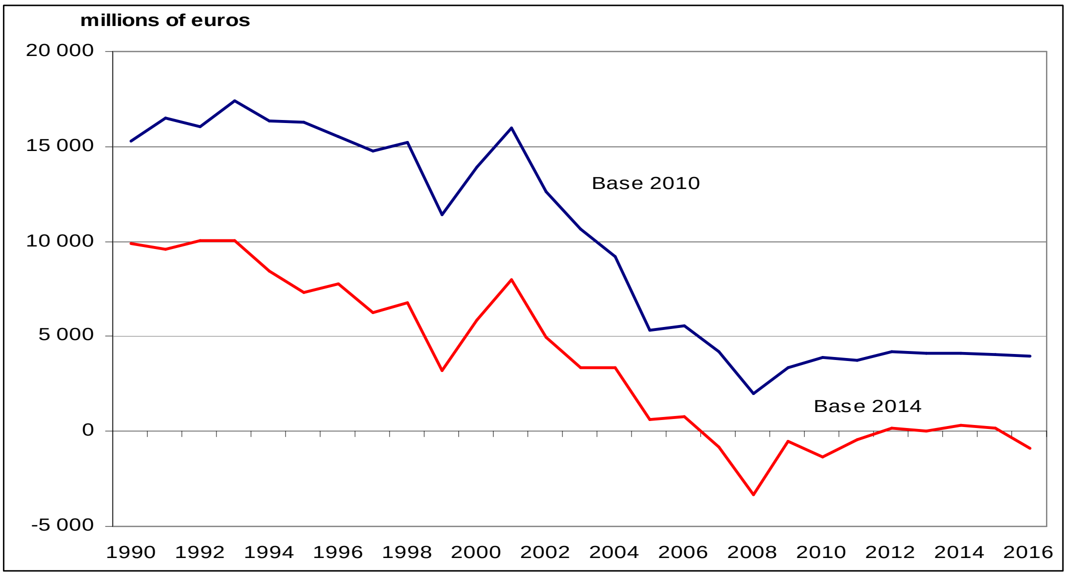
*Source: INSEE - National accounts, 2014 base*

## 4 Revisions in trends

### 4.1 Revisions on interest

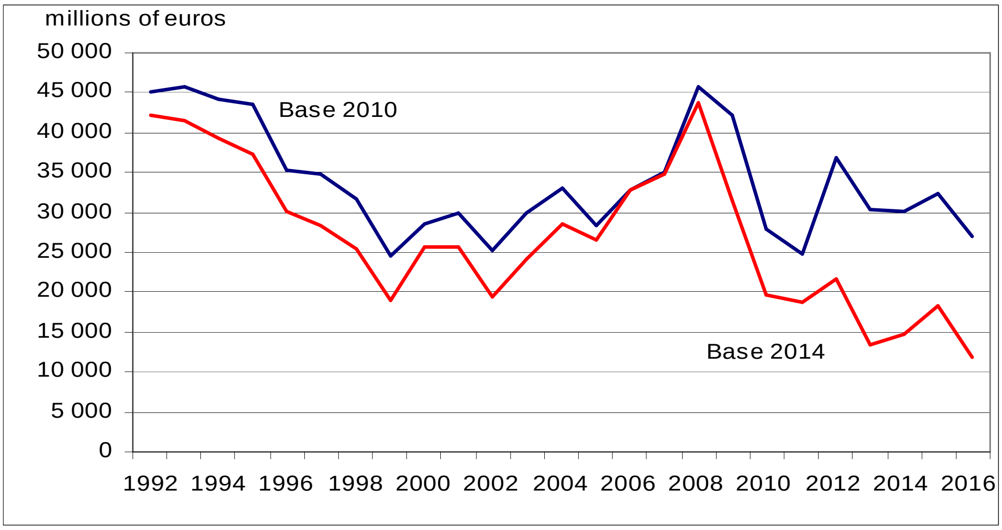
Net interest received by households (including sole proprietors) is lower than in the 2010 base, but the trends remain substantially the same. For NFCs the situation is rather different. The trend in net interest paid by NFCs remains relatively similar in the older years (until 2011). In the 2010 base, the net interest paid by NFCs rose sharply (by over €10bn) in 2012 to fall back slightly thereafter, but this rise in 2012 was connected to a sudden rise in net interest paid to the rest of the world, which balanced out on NFCs from an accounting point of view. This trend was unusual and was corrected in the 2014 base with the realignment with the balance of payments data. The result is that in the 2014 base the fall in net interest paid by NFCs has continued (more or less steadily) since 2011, an observation which is more in line with the fall in interest rates that has been seen over the last few years. Moreover, the stated interest rate on NFCs' liabilities in the form of loans or bond securities has now been on a steady downward slope for the last few years (*Graph*).

Net interest received by households (including sole proprietors)



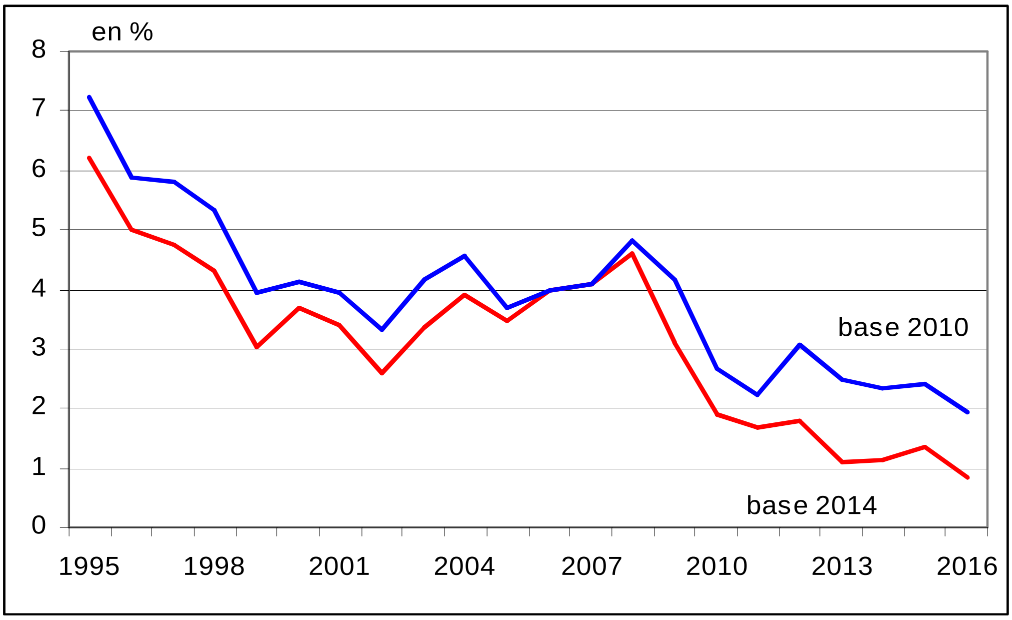

*Source: INSEE - National accounts, 2014 base*

**Net interest paid by NFCs** (millions of euros)




*Source: INSEE - National accounts, 2014 base*

**Stated interest rate on NFCs' liabilities in the form of loans or bond securities**



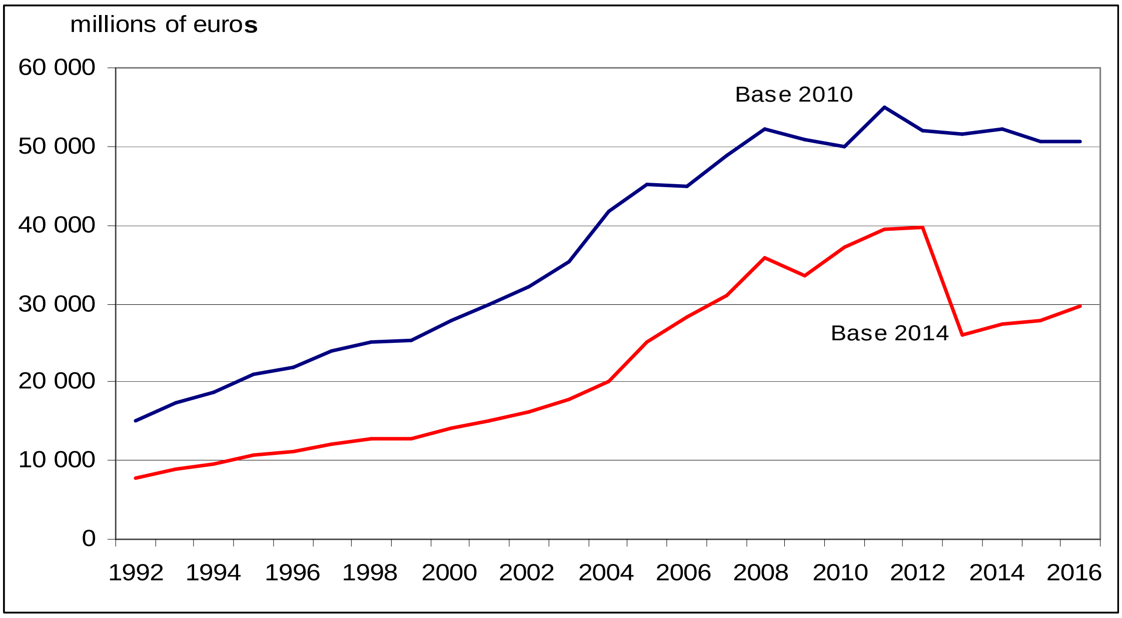

*Source: INSEE - National accounts, 2014 base*

4.2 Revisions on distributed income of corporations

As seen earlier, the downward revision of income distributed by corporations to households is massive over the base years, with a reduction of the order of €25bn. This revision, however, has not been stable over time: it was almost 50% less in the years 2012 and earlier, with the trend between 2012 and 2013 being revised drastically downwards. This revision is worth analysing.

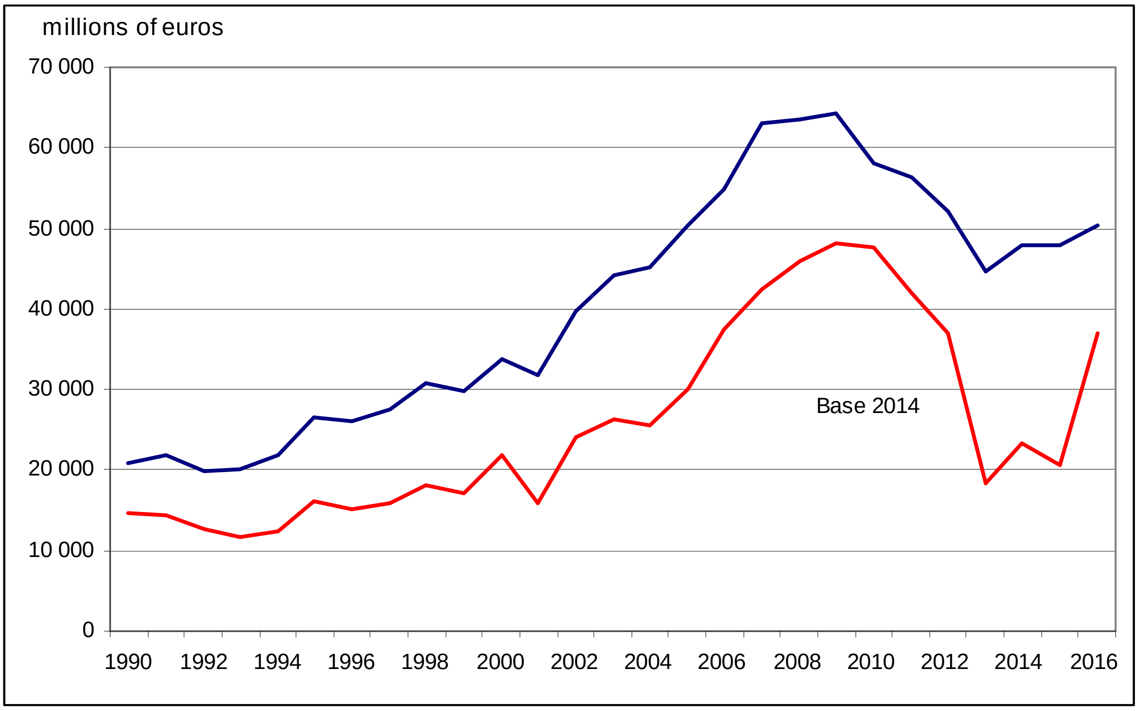
The year 2013 was the year the flat-rate withholding tax (PLF) was abolished. Income previously taxed at 21% was taxed, from 2013 onwards, at the income tax scale. For the wealthiest households, which are also those receiving the most dividends, the abolition of the PLF meant the rate of tax on dividends leapt up from 21% to 41%. This less advantageous tax situation may well have encouraged corporations and private individuals to change their income distribution or financial investment behaviour (*box*).

**Dividends received by households**




*Source: INSEE - National accounts, 2014 base*

**Net distributed income of corporations**




*Source: INSEE - National accounts, 2014 base*

**Box: Focus on the sharp drop in dividend flows between 2012 and 2013**

Between 2012 and 2013 a twofold observation can be made:
- a €13.6bn fall (-34%) in dividends received by households;
- a €18.7bn reduction (-50%) in net earnings distributed by NFCs.

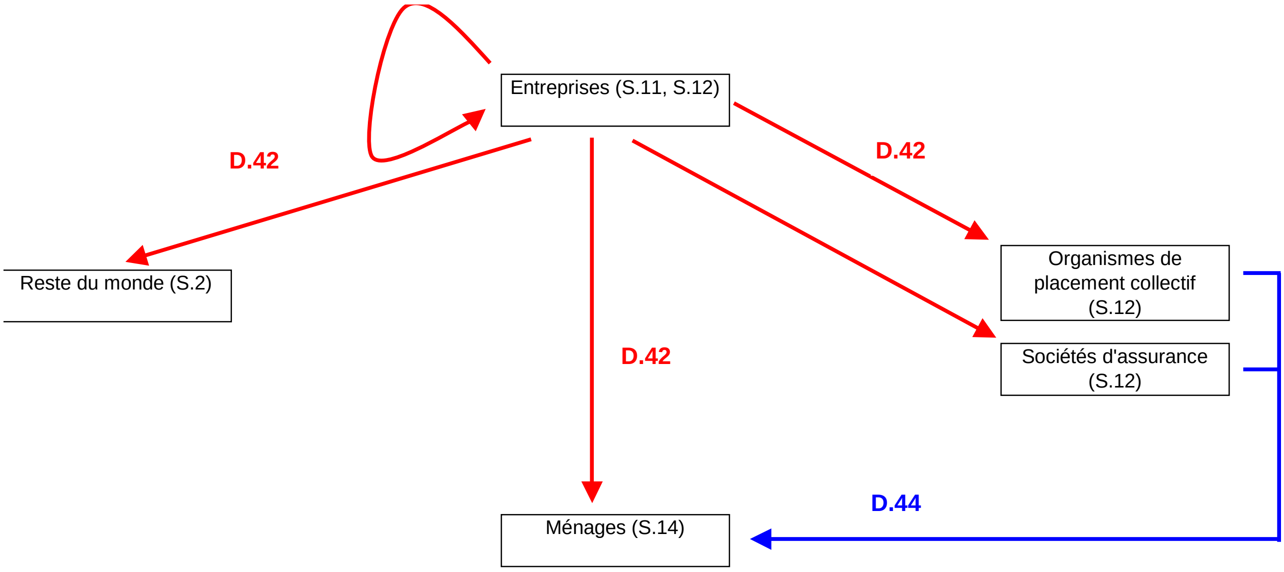
This is particularly remarkable insofar as it brings the corresponding flows to levels close to those measured about ten years previously.

The first possible explanation concerns the cyclical economic environment, growth in the economy having slowed very substantially between 2011 and 2012 (+0.2% after +2.1%): it should be remembered that the dividends paid in year N mainly concern the previous financial year (N-1), although the practice adopted by certain companies of paying dividends quarterly or that of financial years that do not coincide with the calendar year oblige us to nuance this assertion slightly.
However, the cyclical economic situation explanation does not seem to be enough to explain the unprecedented fall, as no fall on this scale was observed in earlier periods, even in phases when economic activity was contracting.

The second possible explanation relates to taxation. It should be noted first of all that the fall in dividends received by households between 2012 and 2013 is not on the same scale between corporations subject to corporation tax (-41%) and corporations subject to IRPP (-18%). Although the taxation applicable to the latter did not substantially change between 2012 and 2013, this was not the case for the taxation applicable to dividends received from the former. Until 2012 dividends received from corporations subject to corporation tax could be subject to a flat-rate withholding tax (PLF) of 21%. From 2013, dividends were taxed in accordance with the income tax scale. For the wealthiest households, which are also those receiving the most dividends, the abolition of the PLF meant the rate of tax on dividends leapt up from 21% to 41%.
It is possible that some shareholders, if they did not have cash flow needs, will have decided to defer the payment of dividends. Of course, it would be difficult to imagine all corporations suddenly reducing their distribution of dividends for this reason, if only because many of them have a large portion of non-resident shareholders (who are therefore not affected by the tightening up of the taxation applicable to dividends received by households residing in France). But in some cases, households are not directly shareholders in the companies in question, for example when they have shares in a family holding company which is itself a shareholder in listed companies. It is possible to imagine that some people will have thought it advantageous to keep their dividends in such a holding company in order to avoid, at least in the short term, their dividends being taxed at the income tax rates.
It is also possible that some households, wishing to invest in shares but seeking to reduce the tax on their dividends, will have chosen to reduce their direct shareholding in favour of products subject to lower tax rates - typically unit-linked life-insurance plans. In national accounting such behaviours would induce a fall in dividends (D.421) received by households in favour of income from life insurance (D.441) to policyholder households.
It is possible that certain enterprises will have chosen to distribute their profits to their shareholders without exposing them to immediate taxation of the dividends at the IRPP rates, by buying back shares using cash released from the profits made. In this case, the unit value of the shares increases, but their holders are not taxed as long as they have not realised the capital gain by selling their shares.

**Appendix: simplified diagram of dividend flows**

When an enterprise, whether a non-financial corporation (NFC, S.11) or a financial corporation (FC, S.12) pays dividends to its shareholders, national accounting records flows of dividends (D.42) from these enterprises to the entities legally holding these shares: NFCs, FCs, households (S.14) or the rest of the world (S.2[2]).




Some of these securities are held by collective investment fund (CIFs). These CIFs can be of different types: undertakings for collective investment in transferable securities (UCITS, OPCVMs in French), capital investment funds, employee savings funds, etc. CIFs then pay their subscribers (holders of shares in the fund) an income: even if a CIF asset consists of shares (which is not the case of all CIFs), the income received by the holder of the shares in the fund is not recorded in national accounting as dividends (D.421), but as CIF income (D.443).

Likewise, shares may be held indirectly by households via a unit-linked life-insurance plan: in this case, a payment of dividends (D.421) to the insurance company that sold the life-insurance policy is recorded, and an investment income payment from life insurance (D.441) to policyholder households.

2 General government (S.13) may also hold shares, but to simplify the presentation, this case has been ignored in the diagram.