The distribution of household wealth in Belgium : initial findings of the second wave of the Household Finance and Consumption Survey (HFCS)

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Introduction

Households' total financial assets and liabilities can be derived from a country's financial accounts, and their total real assets estimated on the basis of home ownership and property prices. These macroeconomic sources reveal little or nothing about the actual distribution of household wealth, as this requires data at household level. This is why the Household Finance and Consumption Network (HFCN) conducts a wealth survey in the euro area countries, known as the Household Finance and Consumption Survey (HFCS). Methodological aspects of the survey were described in HFCN (2013a) and extensive international comparisons were reviewed in HFCN (2013b). How the HFCN works, how the HFCS was organised in Belgium and the findings of the first wave (2010) were reported in Du Caju (2013). This article draws on the preliminary findings of the second wave of the HFCS in Belgium (conducted in 2014) to analyse the structure and distribution of Belgian household wealth, and compares these with the findings of the first wave (2010) as pertaining to Belgium. The international findings of the second wave are not yet available ; a joint HFCN report is planned for the end of 2016.

This article breaks down into three sections. The first section discusses the content and organisation of the HFCS, briefly outlining this survey of the financial situation of households and explaining how the data is made up. The second section is devoted to the breakdown of household assets and liabilities, distinguishing between real and financial assets. The HFCS uses a broad definition of real and financial assets of households, and invariably asks households 1) whether they own selected assets, and 2) how much those assets are worth. The survey thus does not only reveal the participation rate (how many households and which investment instruments) but also the valuations of these investments. The third and final section wraps up on an analysis of net household wealth, paying particular attention to the distribution of wealth across households and comparing this with the income distribution. The article ends on the initial conclusions to be drawn from the HFCS's second wave in Belgium.

1. The Household Finance and Consumption Survey

In 2008, the Governing Council of the European Central Bank (ECB) decided to conduct a survey on the financial behaviour of households in the euro area, which became known as the Household Finance and Consumption Survey or HFCS. A specific research network, called the Household Finance and Consumption Network (HFCN), was set up for this purpose, comprising researchers, statisticians and survey specialists from the ECB, national central banks, some national statistical institutes and external consultants. The National Bank of Belgium is responsible for Belgium's HFCS.

The network aims to supplement existing macroeconomic financial accounts data with microeconomic information at individual household level, to conduct specific scientific research and policy-relevant analyses, and to learn about aspects related to the distribution of assets and liabilities. The HFCS was designed to support the Bank's and the Eurosystem's analyses of monetary and macroprudential policies. Data which reflect the heterogeneity of the household sector, such as those collected by the HFCS, can usefully supplement macroeconomic and financial statistics by adding information on distribution (notably on the asymmetric distribution of wealth). HFCS data permit analysis of specific groups of households key to policy-making, e.g. the lowest and highest income and wealth deciles, excessively indebted households and households facing credit constraints.

In Belgium, the survey is conducted by the Bank without the direct involvement of any statistics institute[1] as in some other euro area countries. Within the Bank, the Economics and Research and the General Statistics Departments work closely together on the general set-up of the survey and on processing and analysing its findings. The fieldwork, i.e. the actual collection of information through face-to-face-interviews of households, is outsourced to an external agency by public tender and then followed up by the Bank.

The HFCS provides detailed data at household level about a range of aspects, covering households' wealth (real and financial assets and liabilities) as well as related variables, including their income and demographic characteristics. The actual HFCS questionnaire is fairly comprehensive and the questions are answered by the person best informed about the household's financial situation. It should be noted that the HFCS records the value of the assets and liabilities as estimated by the households themselves. Where useful and possible, the interviewers encourage respondents to consult relevant documents such as bank statements, tax returns etc. This is not possible for all types of assets, of course, residential property being a case in point, and estimated values will not necessarily always match real market values.

The network ensures that a harmonised survey is organised across the countries of the euro area. The first wave of interviews was held in 2010 in most countries, including Belgium (2 324 households), and the results were published in 2013. The second wave took place in 2014 in most countries – including Belgium

(2 238 households) and the results are scheduled to be in the public domain before 2016 is out. The aim is to carry out these surveys once every three years, with a third wave planned for 2017 and the results out in 2019. For other countries, data are not yet available and the results for Belgium have not yet been made public, so this article will provide only a rough outline based on preliminary data. More detailed studies on a variety of sub-aspects will follow.

2. Belgian household wealth: composition and trends

This section analyses the breakdown and distribution of household wealth, with a distinction made between real and financial assets. Components considered are which assets are held by which households and how much those assets are worth. The following aspects come into play:

– the participation rate: the share of households – as a percentage of the total population of households – owning a particular asset type. The participation rate captures the distribution of balance sheet items across households;
– the conditional median value: this only considers households holding selected asset types and indicates the median value of these in euros for these households. The median (p50 percentile) is the value of a given variable such that half of households own less and the other half more; the median reflects the value for a typical household right in the middle of the distribution. The other percentile values (p1 to p99) reflect other points in the distribution;
– the error margin: the error margin is defined as twice the standard error of the estimated parameter (percentile value), resulting in a confidence interval of approximately 95 %. The survey arrives at estimates based on a sample of the population, and errors are inevitable. Error margins increase as the sample used to estimate a variable's percentile value gets smaller and its spread wider.

2.1 Real assets

In terms of real assets, the survey makes a distinction between property (real estate) and other types of real assets. Real estate first and foremost comprises a household's main residence if they are home owners and, second, any other property they may own, e.g. second homes, holiday homes or rented properties. One of the unique features of the HFCS is that it is not limited to property but also takes account of other real assets. A second category is

TABLE 1   REAL ASSETS

(participation[1] and median value[2])

	Real assets	Main residence	Other real estate	Vehicles	Valuables	Self-owned businesses
HFCS I (2010)	89.8 %	69.6 %	16.4 %	77.2 %	15.4 %	6.6 %
	219.8	248.3	173.3	6.2	5.0	49.3
	(14.1)	(9.5)	(29.4)	(1.2)	(2.7)	(30.1)
HFCS II (2014)	88.5 %	70.3 %	18.5 %	76.2 %	12.6 %	8.5 %
	250.7	249.7	176.8	6.9	5.9	55.5
	(11.6)	(1.4)	(29.1)	(1.0)	(2.1)	(48.2)

Source: NBB (HFCS 2010 and 2014, preliminary data).
(1) Participation rate as a percentage of households.
(2) Conditional median value in thousands of euros, with the error margin (twice the standard error) in thousands of euros in brackets.

vehicles, primarily cars, but also motorbikes, boats, aircraft and caravans. The HFCS also takes stock of a series of valuable items that may form part of a household's real assets, asking about things such as jewellery, art, antiques, and other collections that might have value. A final key component of real assets surveyed is business assets, such as a household's own, non-listed companies, e.g. self-owned businesses and family companies. If, say,

a household holds property via such a company, its value will be included in the company's total value and not in the household's direct property holdings.

The vast majority of households in Belgium (88.5 % in 2014) own real assets, the principal item being the household's main residence. HFCS findings show that 70.3 % of Belgian households owned their main residence

CHART 1   BREAKDOWN OF HOUSEHOLD REAL ASSETS

(percentage share of the total value of real assets)
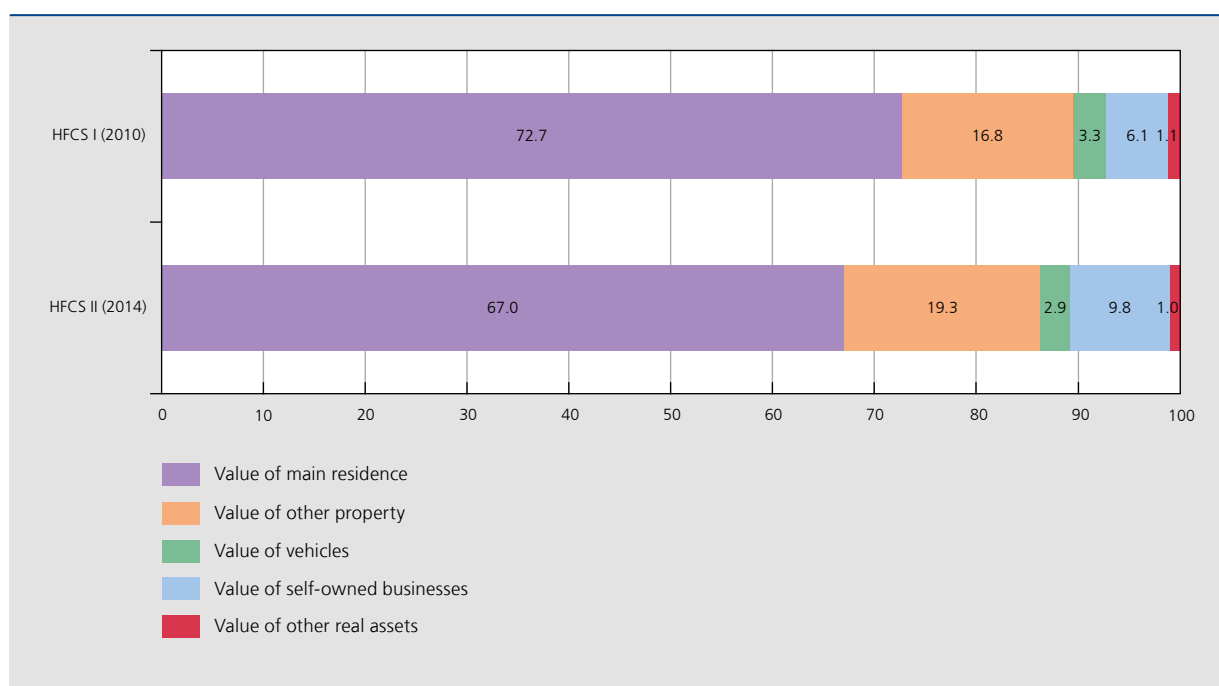
Source : NBB (HFCS 2010 and 2014, preliminary data).

in 2014. The typical family in the group of households owning their own homes in Belgium will be looking at a property value of € 249 700 (conditional median value). This is virtually unchanged from 2010 (€ 248 300).

In addition to their main residence, 18.5 % of Belgium's households owned other property in 2014, which is more than in 2010 (16.4 %). Error margins related to the median value (€ 176 800) of this other property are relatively high due to the wide spread of these properties – from modest chalets to multiple properties generating returns – and the relatively small number of observations in the sample. Over three-quarters of households own one or more vehicles. As for their business ventures, 8.5 % of Belgian households report running one or more businesses of their own. The median value of this asset item came to € 55 500 in 2014, compared with € 49 300 in 2010, once again allowing for a wide error margin in view of the wide spread and the small number of observations. Lastly, about one in every seven households reports owning other valuables among their real assets.

All things considered, real asset ownership has remained fairly stable from the first HFCS wave in 2010 to the second in 2014. Investment in other properties, in addition to households' main residences, was clearly up. Households' increased interest in owning other property also shows up in the breakdown of their real assets, with other property accounting for a growing proportion of the portfolio alongside the main residence in 2014 when compared with 2010. Other property saw its weighting increase to 19.3 % from 16.8 %, which may reflect the low interest rate environment and an excess of resources at Belgian households looking to invest safely.

2.2 Financial assets

The HFCS assumes a broad definition of financial assets but excludes cash. Financial assets primarily include deposits: sight accounts and savings and term accounts. Investment funds comprise all investments in mutual funds, regardless of their underlying securities (shares, bonds, property, etc.). The bonds and savings notes included in the HFCS are individual assets and not the securities underlying mutual funds. These may have been issued by a State, a bank or another type of company. As with bonds, the HFCS makes a distinction between individual shares and shares as the securities underlying a mutual fund. The voluntary pensions and life insurance item only takes into account the value of voluntary individual schemes and insurance, and leaves out public pensions and any sectoral or company pension schemes or insurance – which in Belgium means that this item only includes the third pillar. Individual households typically find it hard if not downright impossible to estimate how much their public pensions and any voluntary sectoral or company pensions are actually worth.

To arrive at total financial assets for households, the HFCS also factors in the values of a variety of other products, but here these are not reported and analysed separately. Examples of such products include investment accounts managed by third parties, options, futures, index certificates, precious metals etc., as well as assets with third parties, e.g. loans to family or friends.

For the purpose of analysis, a distinction is made between deposits (current and savings account), investment funds, bonds and savings notes, listed shares, and voluntary individual pension schemes or life insurance. Virtually all

TABLE 2 **FINANCIAL ASSETS**
(participation[1] and median value[2])

	Financial assets	Sight accounts	Savings accounts	Mutual funds	Bonds and savings notes	Shares	Voluntary pensions and life insurance
HFCS I (2010)	98.0 %	93.7 %	76.5 %	17.6 %	7.5 %	14.7 %	43.3 %
	26.5	1.3	11.8	20.3	30.4	5.0	19.8
	(3.2)	(0.2)	(2.6)	(5.6)	(18.7)	(3.7)	(3.0)
HFCS II (2014)	97.9 %	97.1 %	76.6 %	21.0 %	7.8 %	11.0 %	44.4 %
	28.5	1.8	16.0	28.2	12.1	9.5	16.7
	(3.4)	(0.3)	(2.9)	(9.2)	(4.5)	(4.6)	(1.9)

Source: NBB (HFCS 2010 and 2014, preliminary data).
(1) Participation rate as a percentage of households.
(2) Conditional median value in thousands of euros, with the error margin (twice the standard error) in thousands of euros in brackets.

households in Belgium have one or more sight accounts, while three-quarters also have one or more savings accounts. By contrast, participation in other financial assets is smaller, although households do tend to participate more in voluntary pensions and life insurance, i.e. in the third pension pillar.

In 2014, a typical Belgian household had savings accounts averaging € 16 000, compared with € 11 800 in 2010. Only 11 % of households owned individual shares of listed companies, amounting to a median value of no more than € 9 500 per household, whereas in 2010 the percentage of households that directly invested in shares still stood at 15 %. Less than 8 % of households had bonds or savings notes, with a median value of € 12 100 in 2014, compared with € 30 400 in 2010. It would appear that direct investment in shares and bonds has declined in favour of mutual funds. These investment funds, which may also have shares and/or bonds as their underlying securities, were held by 21 % of Belgian households in 2014, up from 17.6 % in 2010. The typical investment in such funds (conditional median value) amounted to € 28 200 per household, compared with € 20 300 in 2010. Investment funds have obviously gained greater popularity among the Belgians. The third pension pillar is a key item in many households' financial assets, a type of investment that is also influenced in part by the value and certainty or uncertainty of

statutory pensions and any sector or company pensions. In Belgium, nearly 45 % of households own this type of financial asset.

All things considered, financial asset ownership remained fairly stable from the first HFCS wave in 2010 to the second in 2014. That said, Belgian households have clearly shifted their investments away from direct share and bond holdings, and are now visibly focusing their financial investments more on mutual funds.

The breakdown of total financial asset portfolios clearly reflects the changed preferences of households. Shares and bonds held in mutual funds have become more important than direct asset holdings. In the HFCS sample, investment funds currently account for one-quarter of households' financial portfolios. The weightings of direct share and bond holdings have correspondingly shrunk.

Respondents in the first wave had given advance notice of the shifts noted in the second wave – from direct investment in shares and bonds to mutual funds, and a greater interest in property (specifically property other than households' main residences). At the time, households expressed caution about direct investments in the markets and growing confidence in property investments (see Du Caju, 2012).

CHART 2 BREAKDOWN OF HOUSEHOLD FINANCIAL ASSETS

(percentage share of the total value of financial assets)
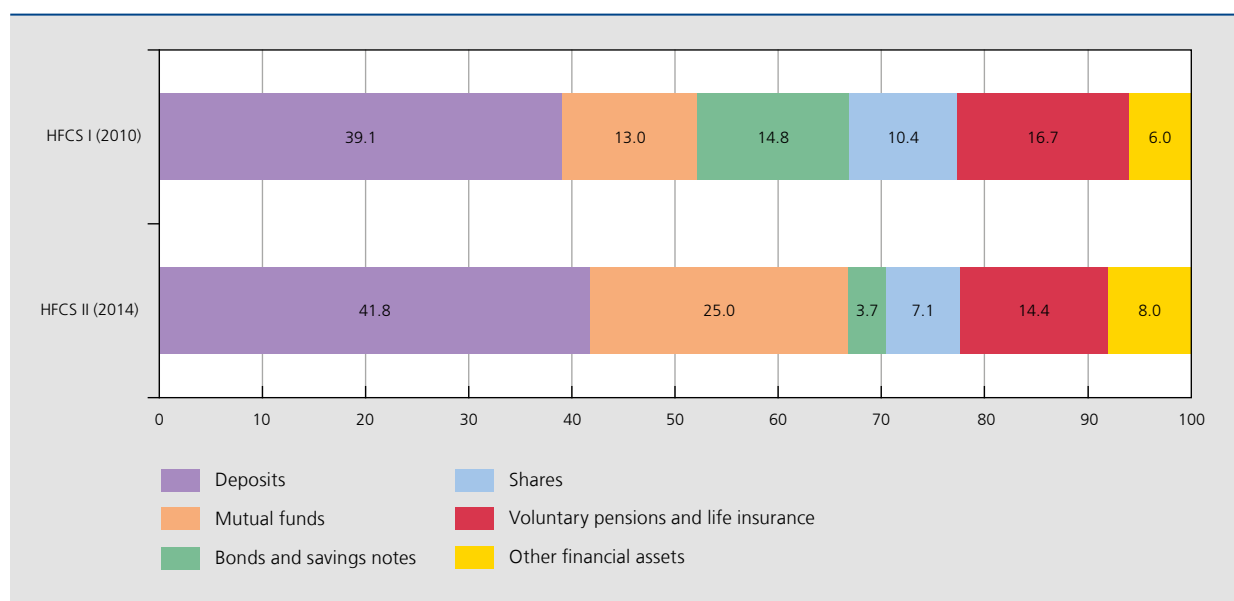
Source : NBB (HFCS 2010 and 2014, preliminary data).

Taking together all real and financial assets of households, we find a very uneven distribution across the population. To gain a clearer picture, we divide households into five equal groups (quintiles) according to the total value of their assets (from low to high) and establish what proportion of total household wealth is held by each of these quintiles. The figures show that the poorest group (the lowest quintile) has virtually no assets, while the wealthiest 20 % of households (the highest quintile) own over half of total assets. The distribution of total assets has not changed much from the first to the second HFCS wave, although there may be a relative decline at the top. Once again, error margins surrounding these estimates increase as we ascend in the household wealth tables. Section 3 will return to this issue.

2.3 Debt

Asset ownership is not the only area covered in the HFCS. The survey also enquires into any debts respondents might have, distinguishing between mortgage loans – to pay for a household's main residence or other property – and non-mortgage loans. Other debts featuring in the HFCS are credit lines and bank overdrafts, debit balances on credit cards, and other loans such as car loans and consumer credit. The participation rate of Belgian households in the credit market rose to 48.8 % in 2014 from 44.8 % in 2010.
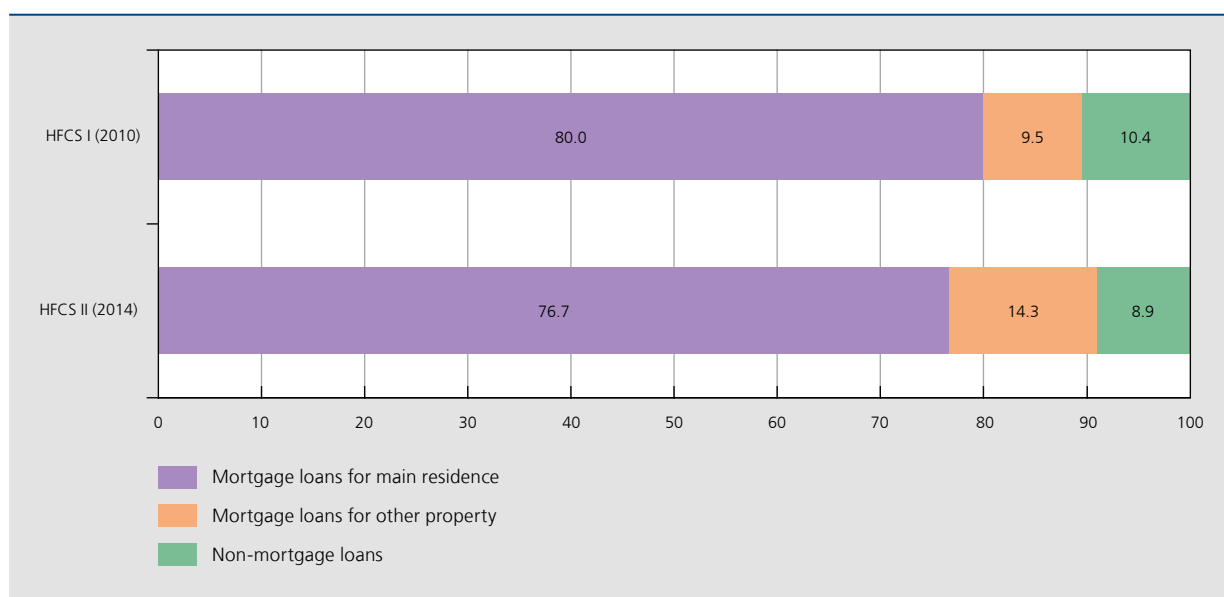
TABLE 3   DEBT

(participation[1] and median value[2])

	Loans	Mortgage loans		Non-mortgage loans
		Main residence	Other property	
HFCS I (2010) . . .	44.8 %	28.5 %	3.2 %	24.2 %
	39.0	66.7	56.9	5.2
	(8.3)	(10.3)	(24.6)	(1.3)
HFCS II (2014) . .	48.4 %	31.9 %	4.7 %	25.2 %
	49.8	79.1	59.2	6.7
	(9.0)	(11.2)	(12.7)	(1.6)

Source: NBB (HFCS 2010 and 2014, preliminary data).
(1) Participation rate as a percentage of households.
(2) Conditional median value in thousands of euros, with the error margin (twice the standard error) in thousands of euros in brackets.

Households with mortgage loans on their main residence saw the median amount outstanding rise to € 79 100 from € 66 700. Increased ownership of other property has also sparked an upturn in loans for this type of property. Other credit – mostly consumer credit, but also credit card debt and debts with private individuals – was also up slightly and was owed by around one-quarter of households, typically in the shape of smaller amounts.

CHART 3   BREAKDOWN OF HOUSEHOLD DEBT

(percentage share of the total value of debt)

Legend:
- Mortgage loans for main residence
- Mortgage loans for other property
- Non-mortgage loans

HFCS I (2010): 80.0 | 9.5 | 10.4
HFCS II (2014): 76.7 | 14.3 | 8.9

Source : NBB (HFCS 2010 and 2014, preliminary data).

HFCS second wave results reveal that, in 2014, both participation and outstanding amounts were up on 2010 showings for all types of loan. In line with changes in investment in other property and the increased proportion of these assets in household wealth, the composition of household debt also changed somewhat between 2010 and 2014. Mortgage loans for other property, in addition to the main residence, accounted for a higher proportion of household debts in 2014 (14.3 %) than in 2010 (9.5 %).

2.4 Income and debt

Debt sustainability does not depend on the size of the debt alone. HFCS data allow us to map structural features such as the risk profiles of indebted households by calculating a number of risk measures at household level. Households have trouble repaying their debts when their income is not sufficient to meet their scheduled debt repayments and when they do not have sufficient assets to meet these payments or repay (a proportion of) the outstanding debt when their sources of income suddenly dry up. Survey data at household level also offer the advantage of assessing separate groups of indebted households so that information is available about the distribution of debts and assets across those households. To assess the risk profiles of households' debt burdens, three risk measures are calculated that

relate debt or debt repayments to a household's income or assets, respectively:

– the debt-to-asset ratio (DTA): a household's outstanding debt divided by the – self-assessed – value of the assets at the time of the interview;
– the debt-to-income ratio (DTI): a household's outstanding debt divided by its annual gross income at the time of the interview;
– the debt-service-to-income ratio (DSTI): monthly repayments of the (mortgage) debt divided by the household's gross monthly income at the time of the interview.

As for the ability to repay debt from current income flows, the typical indebted household is found to have a DTI of 0.8, while the conditional median value for the DTA is at 0.19. These ratios remained stable between the two HFCS waves. However, median values give only a very partial picture, and when debt ratios linked to income or liquid assets exceed critical values, risks increase that households will be unable to meet their debt commitments (see Du Caju et al., 2014 and De Backer et al., 2015). As such, there is the proportion of indebted households with a DTA in excess of 0.75 – i.e. with total debt accounting for more than 75 % of total assets – or a DTI exceeding 3, meaning that more than three times their annual gross income is required to repay their debts. These groups shrank somewhat in the 2010-14 period,

CHART 4   **HOUSEHOLDS' DEBT BURDEN**
(debt indicators for indebted households)
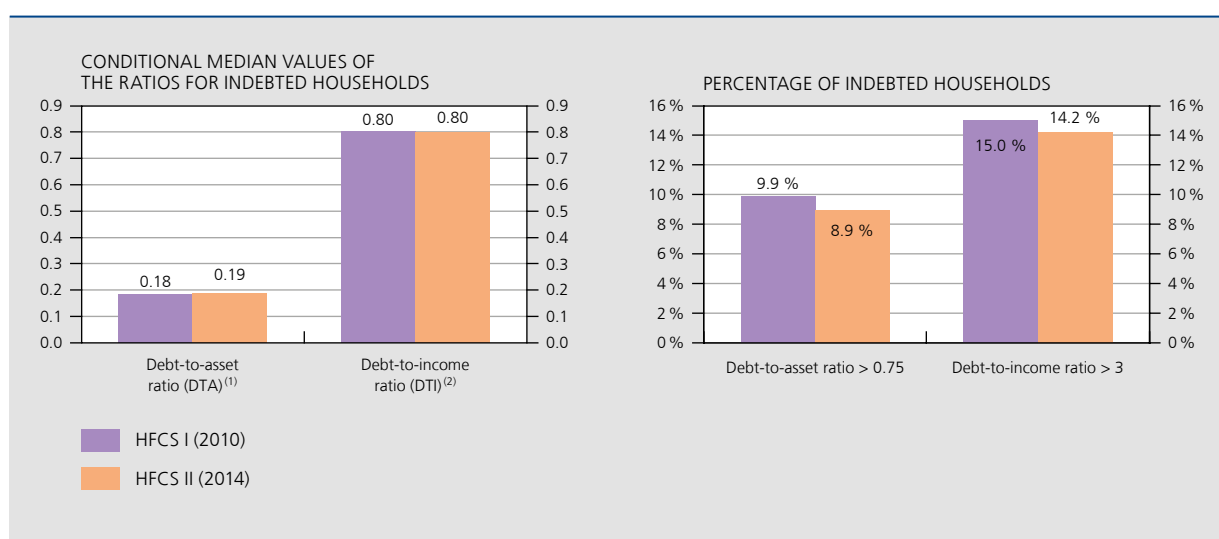
Source: NBB (HFCS 2010 and 2014, preliminary data).
(1) A household's outstanding debt divided by the self-assessed value of the assets at the time of the interview.
(2) A household's outstanding debt divided by its annual gross income at the time of the interview.

with the proportion of households with DTA > 0.75 coming down to 8.9 % from 9.9 %, and that of households with DTI > 3 falling to 14.2 % from 15.0 %.

A different perspective is gained by relating monthly debt repayments to income (DSTI), an approach that is especially relevant to mortgage debt. As it turns out, the burden of mortgage loan repayment (DSTI) is relatively high for low-income households with mortgages. We should not forget, however, that Belgian households tend to be comparatively young when they first get onto the property ladder, that is to say when their incomes are still likely to grow. What is more, Belgium has only a very small proportion of mortgage loans with very long terms to maturity or on which no capital is repaid, implying steeper periodical repayments. However, these intrinsically favourable features of the Belgian mortgage market do make for higher numbers of households facing high DSTIs. HFCS data suggest that DSTIs have specifically declined in the lower income quintiles and the burden of mortgage loan repayment would appear to be falling relatively faster for households on lower incomes.

This might well be one effect of a more rigorous approach to assessing credit files and agreeing loans on the part of banks. In the aftermath of the financial crisis, and partly also at the urging of their regulators, banks have turned more cautious in their lending. The bank lending survey (BLS) also suggests that banks have tightened up their loan standards post-crisis and it is not unlikely that tighter conditions are hitting lower-income households relatively harder.
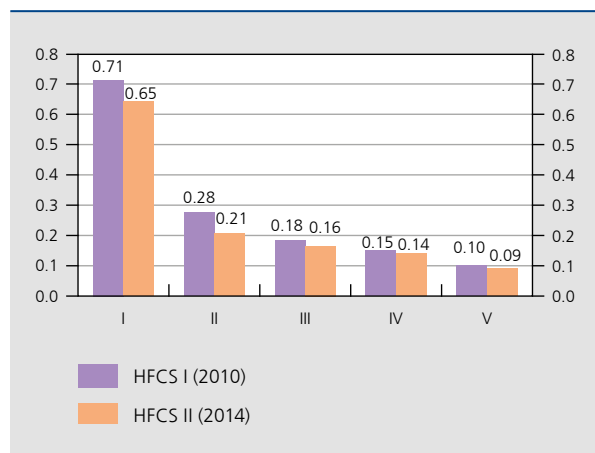
GROSS HOUSEHOLD INCOMES AS RECORDED IN THE HFCS

(percentile values in euros, inflation adjustment)
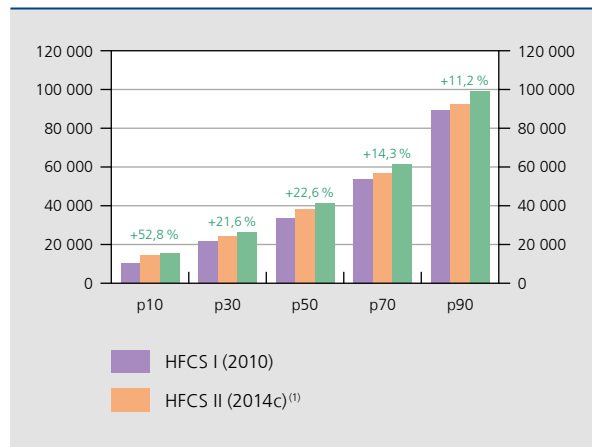
Source : NBB (HFCS 2010 and 2014, preliminary data).
(1) 2014 incomes in 2010 euros, inflation adjustment (HICP) between 2010 and 2014.

Another notable finding concerns how household incomes have developed between 2010 and 2014. HFCS data reveal that the incomes of Belgian households in the lower income deciles increased more sharply in relative terms than did those in the higher income deciles. At the lowest end, household incomes tend to be made up of income-replacement benefits and income from labour, which – from the first HFCS wave to the next – were propped up by indexation and policy measures aimed at ensuring employment. By contrast, the highest household incomes have a relatively greater amount of income derived from financial assets, which was squeezed by the financial crisis and low interest rates. What is more, earned incomes at the higher end often also include a variable component, like premiums and bonuses, and these variable pay components may also shrink in times of crisis.

The HFCS questionnaire surveys annual earned incomes and other sources of income, such as wealth (rents, interest and dividends) and transfer incomes (benefit payments). Like other household surveys, it records gross incomes, as these may be compared internationally. That said, a large group of households do not think in terms of gross income and the Bank this time decided to allow second-wave HFCS respondents to state net amounts, which were then converted to gross amounts using the prevailing tax rules. In so far as the distinction between gross and net is harder to grasp for less educated respondents, and the difference between gross and net more important for earned income than for income from wealth, this methodological improvement might in part explain why HFCS incomes have staged relatively stronger

CHART 5   REPAYMENT BURDEN FOR MORTGAGE LOANS

(mortgage-debt-service-to-income ratio (DSTI)(1), by income quintile)

Source : NBB (HFCS 2010 and 2014, preliminary data).
(1) Monthly repayments of the mortgage debt divided by the household's gross monthly income.

growth at the bottom of the distribution between the first and the second wave.

The economic situation (financial crisis, low interest rates) coupled with methodological improvements in the income questions (a choice of net or gross amounts, converted afterwards) could help explain why lower incomes recorded relatively stronger increases and therefore also why the proportion of households with high income-related debt indicators was smaller in the second wave. Despite this, the proportion of households with excessive debts – as measured by high DTAs, DTIs or DSTIs as described above – remained fairly stable in the period.

Mortgage debt is not equally easy to shoulder for all types of households. Here, too, HFCS findings prove enlightening, as households can be divided into families with and without children. This distinction to a large extent determines housing requirements and spending patterns. Division by age is another possibility – i.e. whether or not the adult(s) in the household have reached the age of 65, as this influences income perspectives and savings behaviour, and whether or not they are a couple, which helps to determine their potential financial resources. Six groups of households emerge : adult couples with children, adult couples without children, lone parent households, single-person households, older couples (at least one of whom

is 65 years or older) and older people living alone. Debt positions can be described for each of these types of family : no mortgage loan, a mortgage loan at a DSTI < 0.3 or a mortgage loan at a DSTI > 0.3.

Breaking down households by household type and by debt position is highly revealing, allowing identification of potential pockets of risk in the mortgage market in the shape of steep DSTI ratios, particularly for lone parent households and to a lesser extent also single-person households. The survey shows that one in ten lone parent households need over 30 % of their household income to pay their mortgage, i.e. one in four households with this level of debt in this category. These potential pockets of risk in the mortgage market are analysed by the Bank as part of its macroprudential policy.

In summary, the results for the second HFCS wave point up the importance of distribution aspects for the Bank's macroprudential policies. The data show that a substantial proportion of mortgaged households spend a significant share of their income on repaying debt, particularly (young) households with relatively low incomes. These results confirm how vulnerable Belgian households' mortgage debt positions are to loss of income, specifically as a result of an unemployment shock (see Du Caju *et al.* (2014) and Du Caju *et al.* (2016)).

CHART 7   MORTGAGE DEBT BURDEN, MORTGAGE DEBT-SERVICE-TO-INCOME [1] (DSTI) RATIO, BY HOUSEHOLD TYPE
(as a % of the total number of households of a particular type in 2014)
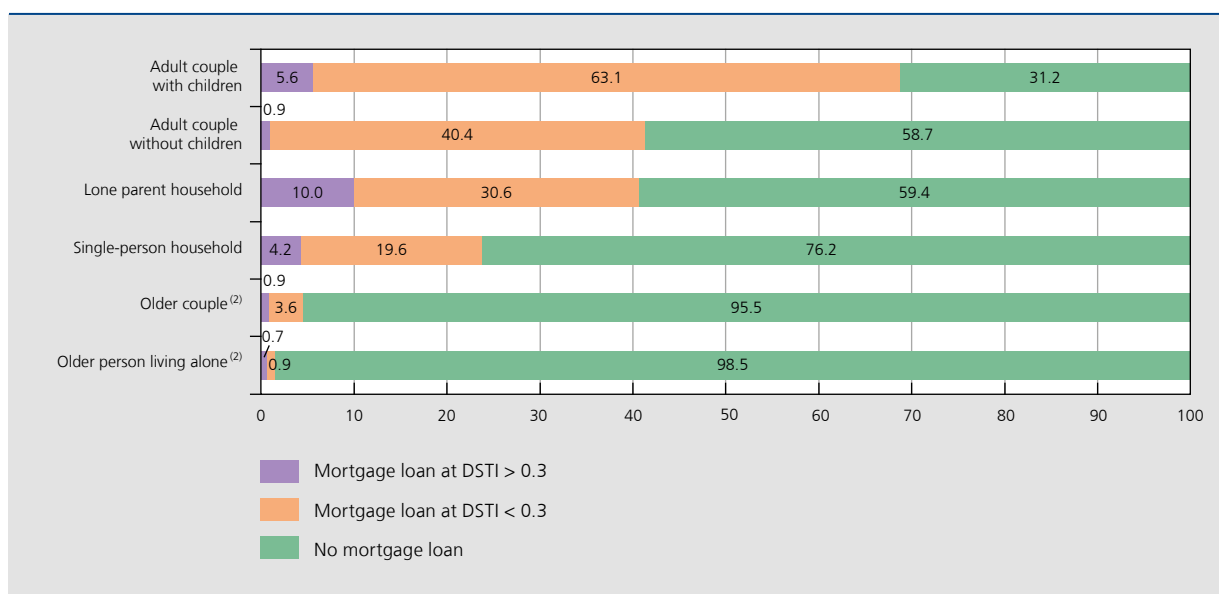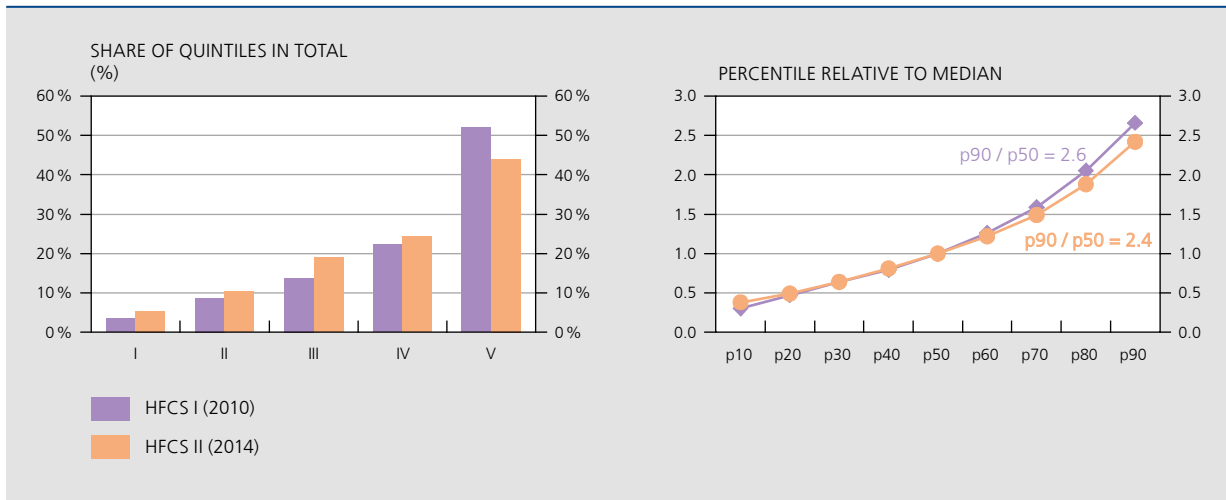

Source : NBB (HFCS 2010 and 2014, preliminary data).
(1) Monthly repayments of the mortgage debt divided by the household's gross monthly income.
(2) (At least one person) over the age of 65.

CHART 8   DISTRIBUTION OF GROSS HOUSEHOLD INCOME

SHARE OF QUINTILES IN TOTAL
(%)

PERCENTILE RELATIVE TO MEDIAN

p90 / p50 = 2.6

p90 / p50 = 2.4

HFCS I (2010)

HFCS II (2014)

Source : NBB (HFCS 2010 and 2014, preliminary data).

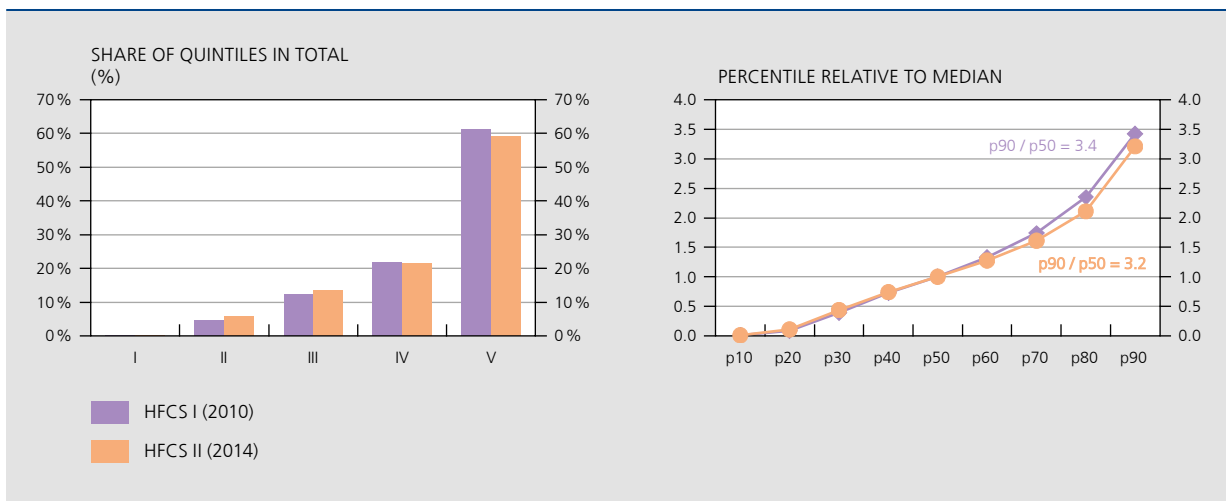# 3. Distribution of income and wealth of Belgian households

In addition to data about wealth, the main topic of the survey, the HFCS collects information on household income as a supplementary variable. After all, wealth is built up by the accumulation of savings from income in addition to inter-generational transfers – e.g. gifts and inheritance – and inter-sectoral transfers, i.e. transfers to the government via taxation. This makes it possible to study simultaneously the distribution of wealth and income across households.

3.1 Income and wealth

The spread of gross household income can be established by breaking households into income quintiles. Looking at the share of each of these quintiles in total income of Belgian households, we find that the lowest

CHART 9   NET WEALTH DISTRIBUTION

SHARE OF QUINTILES IN TOTAL
(%)

PERCENTILE RELATIVE TO MEDIAN

p90 / p50 = 3.4

p90 / p50 = 3.2

HFCS I (2010)

HFCS II (2014)

Source : NBB (HFCS 2010 and 2014, preliminary data).

income quintile accounted for a mere 3.5 % in 2010 and for 5.4 % in 2014. At the other end of the distribution, the share of the highest income quintile shrank to 44 % in 2014 from 52 % in 2010.

The gross income distribution – and its unevenness – can also be captured by expressing the various percentile values relative to the median. This reveals that the ratio between the 90th percentile (p90) and the median (p50) came down to 2.4 in 2014 from 2.6 in 2010. This implies that the gross income of a household in position p90 – i.e. a household with an income exceeding that of 90 % of the country's households and which could be described as a 'typical' high-income household – is 2.4 times the income of a median household. These numbers reveal a slight drop in the income inequality in gross terms at the top end of the distribution.

All things considered, Belgium's income distribution remained fairly stable in the period between 2010 and 2014, possibly showing a slight relative fall at the top of the distribution related to lower income from financial assets.

Just as in other countries (see Du Caju, 2013), the distribution of net wealth in Belgium reveals greater inequality than do incomes, even if both have moved more or less in step between the first wave in 2010 and the second in 2014. The poorest households own hardly any assets and the top 20 % of wealthiest households accounted for over 59 % of total net Belgian household wealth in 2014, compared with 61 % in 2010. Looking at percentile values for net wealth relative to the median, we find the ratio between the 90th percentile (p90) and the median (p50) to have edged down to 3.2 in 2014 from 3.4 in 2010. This implies that a household in position p90, i.e. whose net wealth outstrips that of 90 % of the country's households, owns net assets 3.2 times as great as the net wealth of a median household.

All in all, household wealth appears to have remained fairly stable while possibly having undergone a slight relative decline at the top. It should again be emphasised that the error margins for estimating wealth deciles become greater at higher points on the household wealth scale. This aspect is the subject of Section 3.3.

CHART 10   COMPOSITION AND DISTRIBUTION OF NET WEALTH
(average value of assets and liabilities in thousands of euros, by wealth quintile)
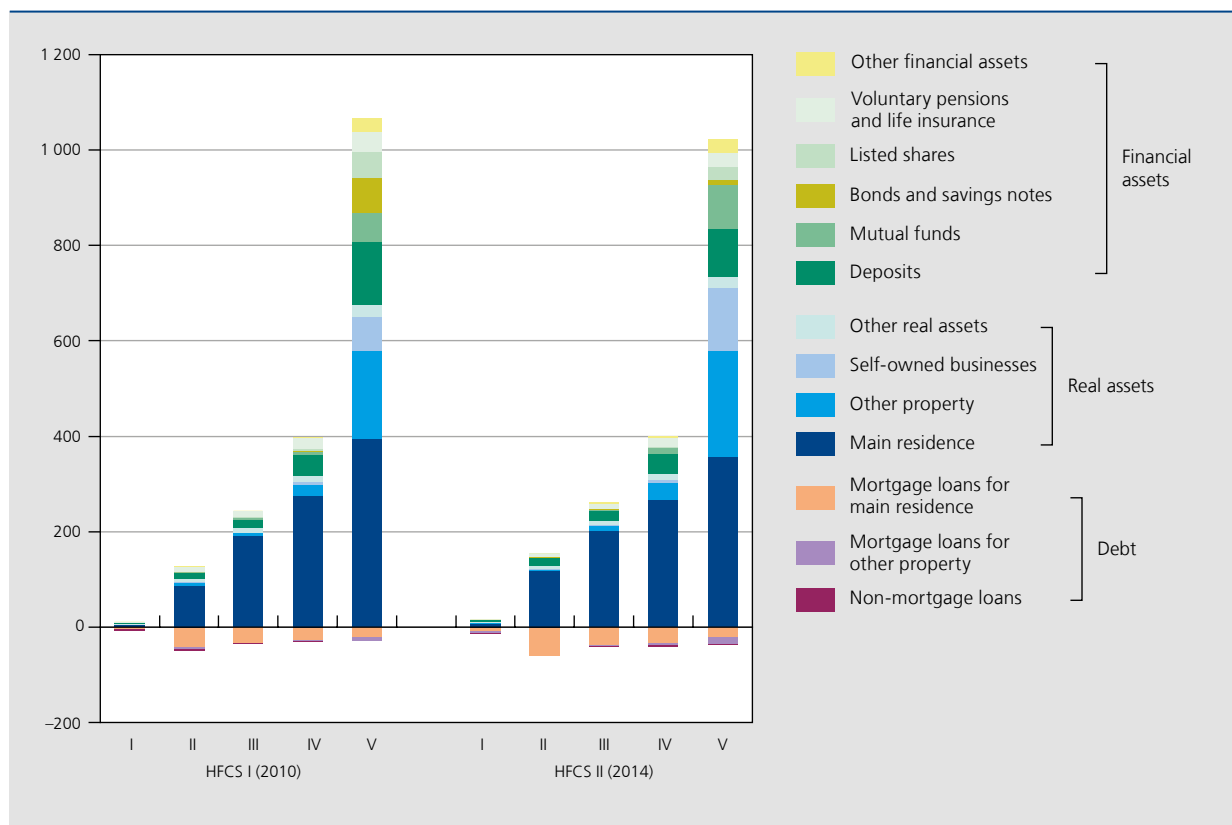
Source : NBB (HFCS 2010 and 2014, preliminary data).

The HFCS affords an opportunity to analyse the make-up of household wealth across the entire distribution of wealth. In other words, we can establish the composition of the assets of wealthy households and compare this with those of less wealthy households. The size and composition of net wealth is indeed found to vary greatly between the wealth quintiles.

Households in the lowest wealth quintile own little in the way of assets, which typically comprise deposits and other real assets (vehicles or other valuables). Wealth in the three intermediate quintiles, which we might refer to as the middle classes for the sake of convenience, primarily takes the shape of home ownership, plus deposits. This group typically also has the largest amount of outstanding mortgage debt. In contrast, wealthier households tend to own residences with higher average values than middle-class households, but these account for less than half of their total wealth. The wealthy also own other types of property, whose share has risen to 23 % of net wealth in the highest wealth quintile in 2014 from 18 % in 2010. Mortgage loans to pay for other property are typically also taken out by wealthier households.

Deposits, voluntary pensions and life insurance are among the assets found in all quintiles, even if their average values are small in the lowest quintile. Other financial assets and self-owned businesses (independent companies) are found virtually only in the highest wealth quintile. As noted in section 2, households have shifted away from direct investment in the equity and bond markets and now have more investments in mutual funds. With such assets held almost exclusively by wealthier households, it is this particular group's portfolio decisions that determine overall statistics. The average weighting of investment funds in net household wealth in the highest quintile was up to 9 % from 6 % between the first and second wave. Listed shares saw their weighting drop to 3 % from 5 %, with bonds and savings plunging to 1 % from 7 %. There is one caveat, though : financial assets are less well recorded in surveys than real assets, debt and incomes, and the wealthiest households – which own the majority of these financial assets – are the hardest to get to agree to these interviews (see section 3.3). The available survey data therefore make it challenging to measure the actual size of the shift in these assets. That said, these patterns also show up in the macroeconomic statistics of Belgium's financial accounts.

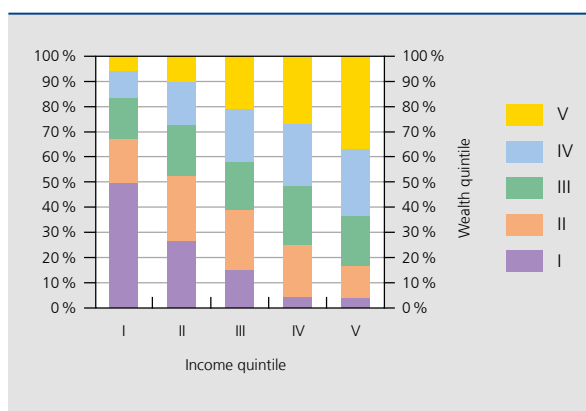## 3.2 Joint distribution of income and wealth

As the HFCS records both income components and assets, this enables us to analyse their joint distribution. This shows incomes and household wealth to move virtually in tandem. Households boasting high incomes typically also have great wealth : 37 % of households in the highest income quintile are also firmly in the highest wealth quintile. Conversely, households on low incomes typically also have little wealth : half of households in the lowest income quintile also rank in the lowest wealth quintile. That said, some households report low incomes but a high level of wealth, such as pensioners or those left an inheritance : 6 % of households in the lowest income quintile rank among the highest wealth quintile. At the other end of the spectrum are households with high incomes but little wealth, such as young, highly educated double-income families : 4 % of households in the highest income quintile rank in the lowest wealth quintile.

Composition and development of household income between 2010 and 2014 differ depending on the level of household wealth. Using HFCS data to illustrate this, we distinguish between labour income (employee or self-employed), income from capital (interest, dividends and rental income), transfer income (pensions, unemployment benefit and other income-replacement benefits), and debt repayments.

Income from capital is (of course) found mainly in the group of wealthiest households and came down between 2010 and 2014, primarily in the wake of lower interest rates.
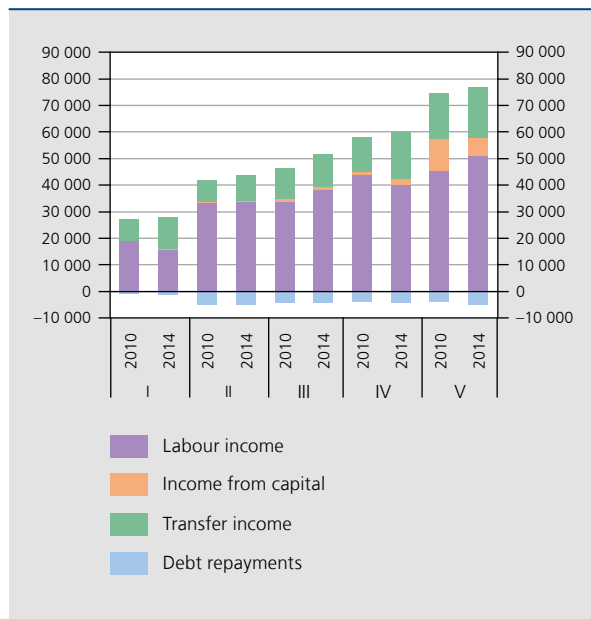
It goes without saying that the various income and wealth quintiles comprise the whole range of household types.

CHART 11   JOINT DISTRIBUTION OF INCOME AND WEALTH

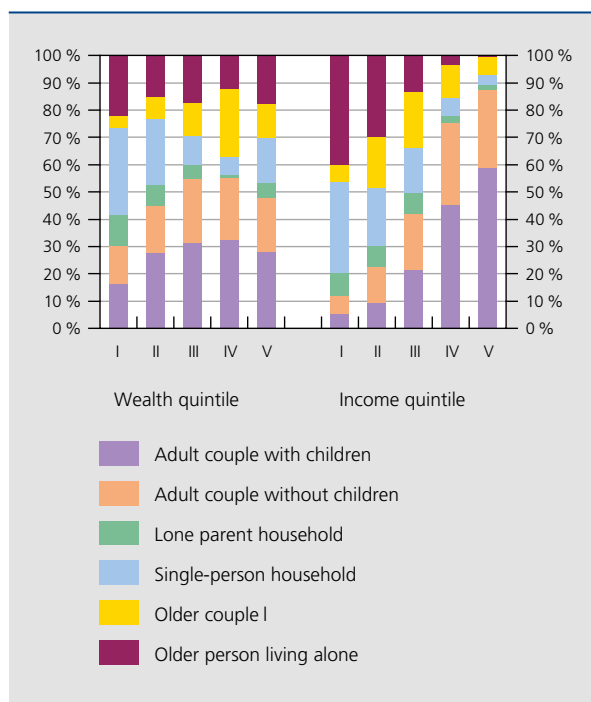(as a % of the total number of households per income quintile in 2014)

Source : NBB (2014, preliminary data).

Legend:
- Labour income
- Income from capital
- Transfer income
- Debt repayments

Source : NBB (2010 and 2014, preliminary data).

Wealth quintile   Income quintile

Legend:
- Adult couple with children
- Adult couple without children
- Lone parent household
- Single-person household
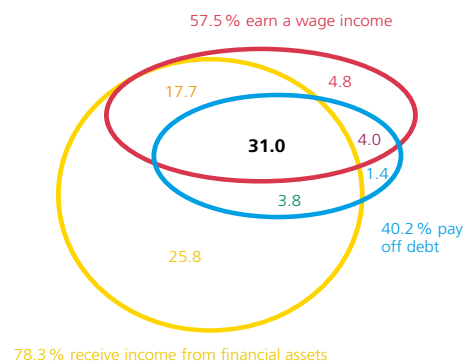- Older couple l
- Older person living alone

Source : NBB (HFCS 2014, preliminary data).

Here, too, the HFCS results are telling. The highest income quintile has relatively few older households (at least one person over 65) and scarcely any older people living alone. However, the highest wealth quintile has relatively large numbers of older people : their income may take a sometimes steep downward turn after retirement, but savings accumulated over their working lives often provide a significant amount of wealth. The comparatively tougher position that single people – with or without children – find themselves in is also borne out by the data : these groups are mostly found in the low income and wealth quintiles. By contrast, adult couples with children are strongly represented among high incomes, but are more evenly spread across wealth quintiles.

Family status is not the only way to distinguish households. Monetary policy, which has been marked by low interest rates and non-conventional measures post-crisis, influences households' financial positions in a variety of ways. In assessments of the differentiated impact of this mix of policies, a distinction is often made between households that save and those that borrow, but transmission mechanisms and the ultimate effects of monetary policy are so complex that too simplified an analysis may produce a highly distorted view. After all, monetary policy also contributes to a stable financial environment that is supportive of growth and employment, and so also affects households' labour incomes and the security of these. The distinction between savers, borrowers and employees is only of limited use, as households may belong to a range of these categories.

In effect, HFCS data enable us to simply illustrate this complexity. Households which enjoy labour income from

57.5 % earn a wage income

17.7   4.8

31.0   4.0

1.4

3.8

40.2 % pay off debt

25.8

78.3 % receive income from financial assets

Source : NBB (2014, preliminary data).

dependent employment and also derive income from financial assets (and so receive interest or dividends) or which repay debt[1] (and therefore pay interest) accounted for nine out of ten of all Belgian households in 2014. It also turns out that one-third of households feature in all three categories: they earn wages, have financial income and repay debt. What is more, the vast majority of households that repay debt also enjoy income from financial assets and vice versa. And most employees also have financial income. It should be obvious by now that the population cannot be broken down into clear-cut groups that do or do not benefit from any specific monetary policy measure.

3.3 Household wealth in Belgium: the details

Net household wealth is the sum of all assets, both real and financial, less the sum of all outstanding debt, both mortgage and non-mortgage. As such, net wealth is the main indicator of the richness of any household and therefore deserves a more detailed analysis. To this end, we calculated multiple percentile values of net household wealth on the basis of the data collected in the two HFCS waves of 2010 and 2014, with values adjusted for HICP inflation between the first and second wave. Next, we completed our estimates of the percentile values with 95% confidence intervals. These intervals, which are particularly asymmetric for the distribution's extreme values, provide an indication of the uncertainty and error margins that attend survey data.

The median value of net wealth, i.e. the value of the p50 percentile for a household right in the middle of the distribution, was estimated at € 206 100 in in 2010, with a confidence interval ranging from € 192 000 to € 221 800. For 2014, these figures were estimated at € 218 600 for median net wealth, with a confidence interval ranging from € 203 800 to € 235 300. Adjusted for inflation, the 2014 median value of net wealth worked out at € 202 500 in 2010 euros. In nominal terms, then, estimated net wealth of median Belgian households went up slightly between 2010 and 2014, but this increase is not significant. In fact, net wealth even declined in real terms (adjusted for inflation), but again, this was no significant change. We may therefore conclude that the net wealth of median households remained virtually unchanged between the survey's two waves.

The same finding applies to other points in the distribution of net household wealth. In 2010, households in

the lowest wealth quintile recorded net wealth of less than € 17 900, with a confidence interval ranging from € 11 200 to € 26 700 to estimate this p20 percentile value. In 2014, the confidence interval of the same p20 percentile ranged between € 15 100 and € 28 100 and the actual percentile value is pegged at € 23 300, i.e. € 21 600 in 2010 euros, adjusted for inflation. Once again, the change between the two waves is relatively small and not significant.

At the other end of the distribution, households in the wealthiest decile were looking at net wealth of over € 704 100 in 2010, with a confidence interval ranging from € 663 000 to € 775 200. For 2014, this p90 percentile value is estimated at € 701 600, at an interval of between € 626 100 and € 783 000. Adjusted for inflation, the percentile value fell to € 650 000 but even here the estimated decline is not significant given the size of the confidence intervals.

When using survey data for detailed analysis over time or in terms of groups of households, we should again emphasise that these data are estimates with error margins that tend to increase as the analysed group of data becomes smaller or more diverse. If we apply this to the distribution of net wealth in percentiles, error margins become greater as we ascend the wealth ladder. By the time we get to the top percentiles, these error margins have grown very high indeed, as estimates reflect a very small group of very diverse households. The estimated net wealth value for the 99th percentile would appear to have dropped to around € 2.20 million in 2014 from around € 2.80 million in 2010, i.e. € 2.04 million when adjusted for inflation. However, these estimates are hedged about with such wide error margins that even this drop is statistically not significant.

Incidentally, the spread in this group of wealthiest households is very large: despite a reduced lower bound to the wealthiest percentile of the population, these wealthiest households' share of total net wealth has hardly budged: the 20% wealthiest households hold around 60% of Belgium's total net wealth (61% in 2010 and 59% in 2014). If we drill deeper by investigating even smaller groups of the population, without losing sight of our caveat pertaining to error margins, we find that the top 10% of wealthiest households hold an unchanged share of 43-44%, that the top 5% own 30-31%, and that the 1% of wealthiest households account for 12% of the total net wealth of Belgian households. It should however be noted that significant error margins for extreme values in the data make these surveys less suited to analyses of smaller groups, such as the share of the 1% wealthiest households in total wealth. What is more, the wealthiest households do not usually rank

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(1) Households making periodic repayments are a smaller group than the wider indebted group of households. A number of this wider group were not making any repayments at the time of the interview, such as households with debts that will be repaid in one instalment, e.g. credit card debt and debts to private individuals, and households with payment problems.

CHART 15   DETAILED DISTRIBUTION OF NET WEALTH IN BELGIUM

(percentile values, inflation adjustment and error margins in thousands of euros)
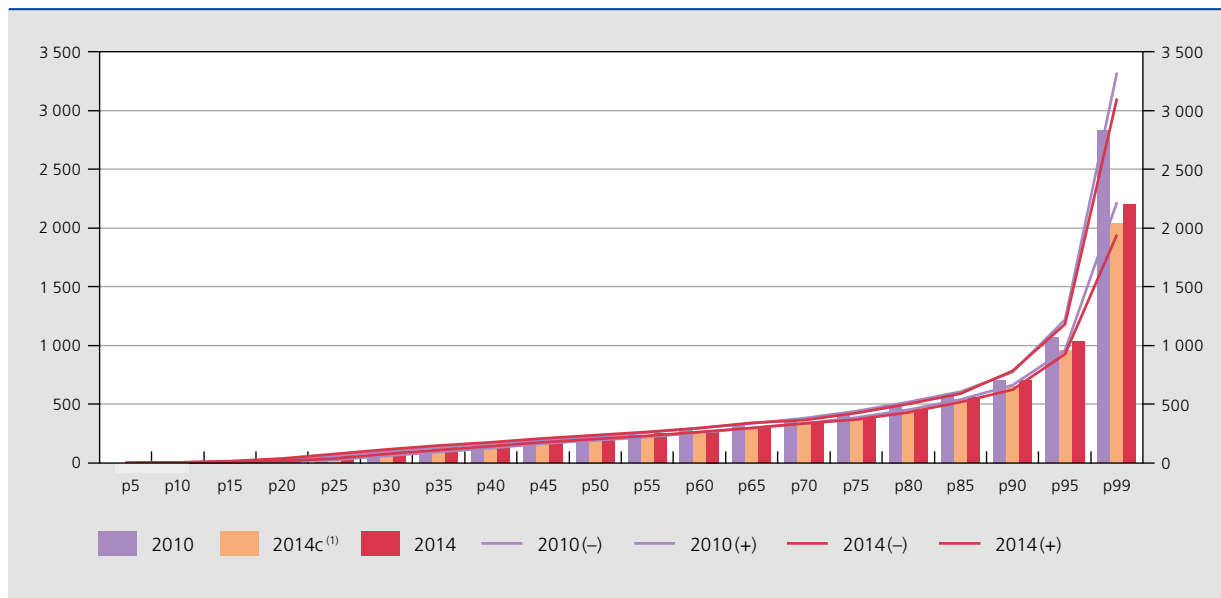
Source : NBB (HFCS 2010 and 2014, preliminary data).
(1) 2014 net wealth as expressed in 2010 euros, adjusted for inflation (HICP) between 2010 and 2014.

among the respondents[1] and survey findings may well underestimate the actual wealth at the top.

This is corroborated when we compare the aggregated HFCS results with macroeconomic statistics in Belgium's financial accounts and property estimates. Such a comparison may be constructive even if it should not be taken as a benchmark, as survey concepts, populations and the macroeconomic sources do not exactly match, while macroeconomic statistics are equally subject to inaccuracies. As it turns out, the survey records incomes, debt and real assets remarkably well in Belgium, but less so financial assets, even if it still does this better than in the other countries[2]. This is not surprising as financial wealth is very unevenly distributed and highly concentrated in a very small proportion of the population, which, as we have said, is hard to survey.

Conclusion

Drawing on the findings of the Household Finance and Consumption Survey (HFCS), this article discusses the structure, income distribution and wealth of Belgium's households. Reviewing both real and financial assets as well as debt, its outcome is an analysis of net household wealth. More specifically, it uses preliminary data to outline the second wave of the HFCS in Belgium (2014) and to compare its results with those of the first wave (2010).

Initial results suggest that income and wealth distribution have remained fairly stable from the first to the second wave. The 20 % of wealthiest households continued to account for around 60 % of total net wealth (61 % in 2010 and 59 % in 2014). Breaking the figures down further, the proportion held by the top 10 % of wealthiest households was unchanged at 43-44 %, with the 5 % wealthiest holding 30-31 % and the top 1 % holding 12 % of total net household wealth in Belgium.

However, it should be noted that error margins apply to survey data and that these can be quite significant for any extremes in such findings. This makes survey data, though often the only available source, less suitable for analysing smaller groups, such as the top 1 % of households and the share of wealth attributable to these. And this becomes even more of a problem in the analysis of

(1) The wealthiest households in the sample of such surveys typically report a net wealth of no more than some tens of millions of euros, significantly below the couple of billion that the wealthiest households in most countries own.
(2) A comparison of total HFCS values with macroeconomic statistics that are conceptually as little different as possible (but never perfect) shows that labour incomes (total wage bill) in the HFCS dovetail nicely with macroeconomic data (110 % in the first wave and 104 % in the second). The same applies to property (113 % in the first wave and 101 % in the second) and to a somewhat lesser extent also to outstanding mortgage debt (88 % in the first wave and 93 % in the second). This match is decidedly smaller for deposits (77 % in the first wave and 56 % in the second), but still better in Belgium than in the other countries surveyed (greater than in all other countries in the first wave and more than in the countries for which informal information related to the second wave is available)..

individual assets, as some are typically owned only by a small number of households. What is more, the wealthiest households do not usually rank among the respondents and survey findings may well underestimate the actual wealth at the top.

Home ownership accounts for the bulk of the wealth of Belgium's middle classes, supplemented mainly by deposits. This group typically also has the largest amount of out-standing mortgage debt. In contrast, wealthier households tend to own residences with higher average values than middle-class households, but these account for less than half of their total wealth. The wealthy also own other types of property, their own independent businesses and finan-cial assets other than deposits, such as equities, bonds and investment funds, which incidentally are almost exclusively found among these particular households.

A comparison of survey findings for 2010 and 2014 reveals increased investment in – and loans attracted towards – other property, in addition to households' main residences. The survey also finds that households have shifted away from direct investment in the equity and bond markets and now have more investments in mutual funds. With such assets held almost exclusively by wealthier households, it is this particular group's portfolio decisions that determine this overall outcome.

Income and wealth distribution are pretty much in step : high-income households typically enjoy great wealth while low-income households do not. That said, some households report low incomes but a high level of wealth, such as pensioners or those left an inheritance : 6 % of households in the lowest income quintile rank among the highest wealth quintile. At the other end of the spectrum, the survey identifies households with high incomes but little wealth, such as young, highly educated double-income families : 4 % of households in the highest income quintile rank in the lowest wealth quintile.

Relatively few older households – and almost no elderly people living alone – are found in the highest income quintile, whereas a fairly large proportion are in the highest wealth quintile. Also clear from the figures is the tough position faced by single-person households, both those without children but particularly those with : most of these are in the low income and wealth quintiles. Income from capital – i.e. interest income, dividends and rental income – came down on average in the 2010-14 period, mainly due to lower interest rates.

While it is difficult for surveys to completely capture finan-cial assets – due to the high concentration of such assets among a small group of households – they reflect real assets, debt and income much more accurately and com-prehensively. As a result, these data lend themselves ex-tremely well to prudential risk analyses of credit markets. Survey findings reveal increased participation and higher outstanding amounts for all types of loans. A rather more detailed analysis points to potential pockets of risk in the mortgage market, particularly for lone parent families and to a lesser degree also single-person households. It finds that one in ten single-parent households need over 30 % of household income to repay their mortgage – that is one in four households with debts in this particular category.

The preliminary findings of the Bank's wealth survey will be processed in the Household Finance and Consumption Network (HFCN) and released at the end of 2016, together with the same data for other euro area coun-tries. The third HFCS wave is set for 2017, with findings scheduled to be published in 2019.

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For more information about the HFCN and the HFCS, go to the website of the European Central Bank : http://www.ecb.europa.eu/pub/economic-research/research-networks/html/researcher_hfcn.en.html