Credit and financing

Wealth and debts of households in France, Germany and Italy before the Covid-19 crisis

The current health crisis associated with the Covid-19 pandemic is expected to have a non-negligible impact on household income, wealth, savings and consumption behaviour. While it is currently impossible to ascertain the magnitude and duration of the shock, it is likely to affect households differently depending on their pre-crisis situation and the severity with which countries are affected. This article sheds light on the financial position of households before the crisis in France, Germany and Italy. It focuses more specifically on changes in their debt and property wealth since 2010, broken down according to household income levels. It is based on a survey conducted by the central banks of the Eurosystem (Household Finance and Consumption Survey, 2020a and 2020b – for Spain, data not available before the end of 2020).

Jérôme Coffinet, Michel Mouliom
Data and Analytical Services Directorate
Quantitative Analyses and Advanced Methods Division
Bertrand Garbinti, Frédérique Savignac
Microeconomic and Structural Analysis Directorate
Microeconomic Analysis Division
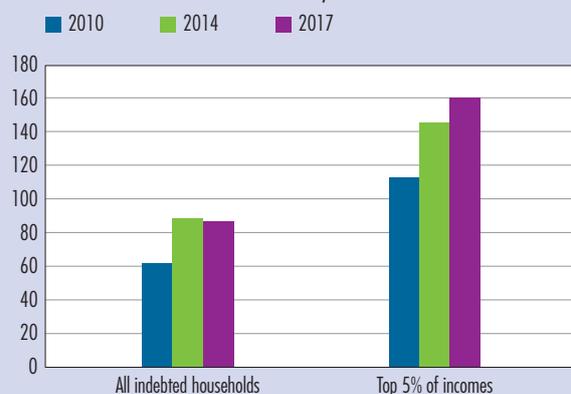
EUR **86,700**
the median amount of mortgage debt
per indebted household in 2017 in France

+12%
changes in debt between 2014 and 2017
for indebted, high-income households
("top 5%" of gross income)

**Median mortgage debt of households in France,
for all indebted households and the "top 5%" of incomes**
(in thousands of constant 2017 euro)

Source: Banque de France, INSEE and ESCB, HFCS survey 2010, 2014 and 2017.

Bulletin
de la Banque de France

230/3 - JULY-AUGUST 2020

Credit and financing

BANQUE DE FRANCE
EUROSYSTÈME

2

1 Household debt has followed a different path in each major euro area country since 2014

A macroeconomic context conducive to heterogeneous developments in wealth and debt across countries

Between 2014 and 2017,[1] the gradual recovery in economic activity following the sovereign debt crisis in the euro area gradually spread to all countries in the bloc. Over this period, falling interest rates tended to push up house prices (see Chart 1).

Moreover, real estate is by far the largest component of household wealth.[2] In 2017, the share of real assets – mostly property – in household wealth stood at around 81% in the euro area, 80% in France, 79% in Germany and 87% in Italy. House price dynamics therefore inevitably and largely determine the household wealth dynamics (Arrondel and Coffinet, 2019).

Over the period 2003-2017, property prices in the euro area, France, Germany and Italy showed contrasting trends.[3] They rose from 2003 to 2008 in France and Italy, but not in Germany. Since 2008, they have steadily increased in Germany. In France, they have displayed more uneven developments, with a decrease in 2009, an increase between 2009 and 2011, then a slow decline, and finally an upswing from 2015 onwards. In Italy, they also declined in 2009, but then stabilised up to 2011, before falling at the end of the period (see Chart 1).

At the end of the period (2016-17), household financing costs in the euro area reached their lowest level. Since the 2008 crisis, average mortgage interest rates in the three main euro area economies have fallen sharply, from just over 5% in 2008 to less than 2% in 2017 (see Chart 2). Since 2012, mortgage rates in Italy have been higher than in the other two countries.
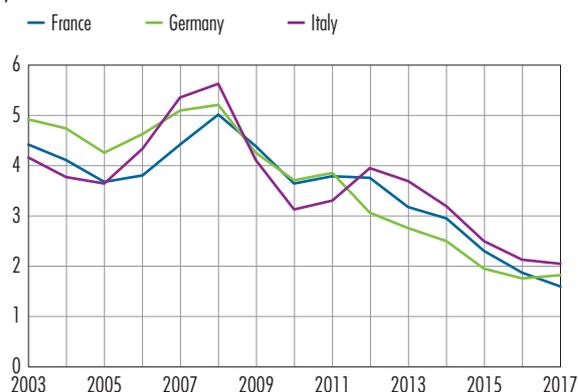
C1 Property prices in the euro area
(100 = 2015)

France — Germany — Italy — Euro area 19
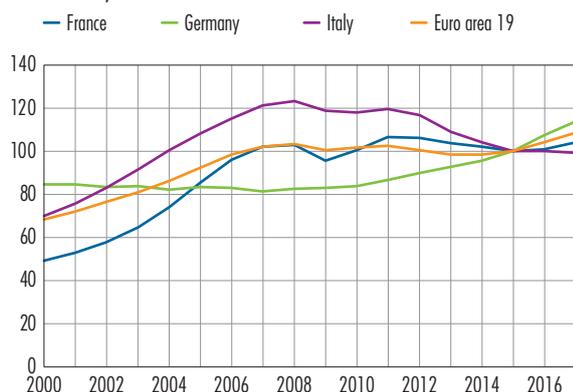
Source: OECD.

C2 Mortgage rates for households
(%)

France — Germany — Italy

Source: ECB.

1 2014 and 2017 are the dates of the two most recent Household Finance and Consumption Surveys (HFCS).
2 Household wealth is defined here as the sum of their financial, property and business assets, and includes durable goods (vehicles, works of art, jewellery, etc.).
3 In 2003, price levels in the three countries were comparable, according to the work of Dujardin et al. (2015) in the first quarter of 2003, the average price per square metre was EUR 1,586 in France, EUR 1,550 in Germany and EUR 1,609 in Italy.

Bulletin
de la Banque de France

230/3 - JULY-AUGUST 2020

Credit and financing

BANQUE DE FRANCE
EUROSYSTÈME

3

Household mortgage debt dynamics differ across countries

In this context, the aggregate debt of Italian households appears relatively stable over the 2010-17 period. Conversely, German household debt has increased, in line with the house price dynamics. The rise in French household debt, which was even more sustained, therefore appears unusual, insofar as it is only weakly correlated with house price trends over the same 2010-17 period (see Chart 3).

C3 Household mortgage debt
(in billions of current euro)
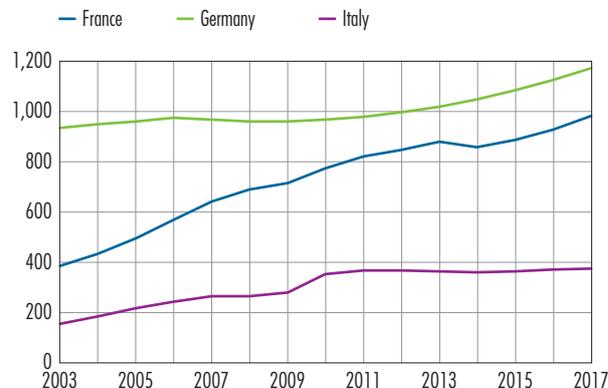
Source: ECB.

The *Household Finance and Consumption Survey* (HFCS)

The Household Finance and Consumption Survey (HFCS)[1] is a joint project of the central banks of the Eurosystem. It is coordinated by the European Central Bank (ECB) as part of a research network, the Household Finance and Consumption Network (HFCN). In several countries (including France), it also involves the national statistical institutes.[2] The latest wave of this survey covers the year 2017. It was published in March 2020 by the ECB. It covers the 19 countries in the euro area, as well as Croatia, Hungary and Poland. The two previous waves mainly covered the years 2010 and 2014. Individual data from the HFCS survey are made available to researchers upon request.

The aim of this survey is to provide structural information on household wealth behaviour using a harmonised data collection process among participating countries. The survey thus collects data on wealth (real estate assets, financial assets), debt, income, consumption and the composition of households.

The data for France are based on the INSEE's Household Wealth survey, which has been conducted since 1986 in its current form. In addition to the harmonised concepts of the HFCS project, the Household Wealth survey provides more detailed information on the holding of specific assets within the French institutional framework (regulated savings, for example). It also includes information useful for understanding financial behaviour, such as household composition, family history, changes in professional status, intergenerational ties, etc. Since 2014, it has included a "panel" component making it possible to follow certain individuals over time.

These surveys are thus a unique and harmonised source of information for understanding the financial behaviour of households in the euro area. In the United States, the Federal Reserve also has a similar tool: the Survey of Consumer Finances. One of the major challenges of these surveys is to measure the distribution of wealth, which is also highly concentrated (Bricker et al., 2016; Vermeulen, 2018; Garbinti et al., 2020). Most surveys seek to better represent the wealth of the most affluent households without whom the results would be biased. The use of harmonised data collected from households through comprehensive administrative sources is a promising way to measure inequalities even more accurately. This approach has already been partially implemented in some countries, including France.

1 *https://www.ecb.europa.eu/pub/economic-research/research-networks/html/researcher_hfcn.en.html* (with form available online).
2 The French contribution to this harmonised survey is the fruit of a partnership between INSEE and the Banque de France.

Bulletin
de la Banque de France
230/3 - JULY-AUGUST 2020

Credit and financing

BANQUE DE FRANCE
EUROSYSTÈME

4

2 The debt of households residing in France displays specific dynamics

### Stability of debt and primary residence ownership…

Since 2014, the percentage of indebted households (all types of debt) in Germany and France has remained stable at around 45% and 46% respectively (see Chart 4). This share is lower and declining in Italy, where it has fallen from 25% to 21% over the period. At the same time, primary residence ownership rates have been broadly stable for all three countries: around 44% in Germany, 58% in France and 68% in Italy.

… in contrast to the rise in "other property" holdings for the richest percentile

However, this apparent average stability masks contrasting developments across gross income levels. In France, the share of households that are indebted due to mortgage loans has increased for the 10% of highest earners belonging to the P95-P100 percentiles (the "top 5%" hereinafter) and for the P90-P95 percentiles (the 5% immediately below, see Appendix for details on the income groups used in this article). At the same time, this share has stabilised for other households.

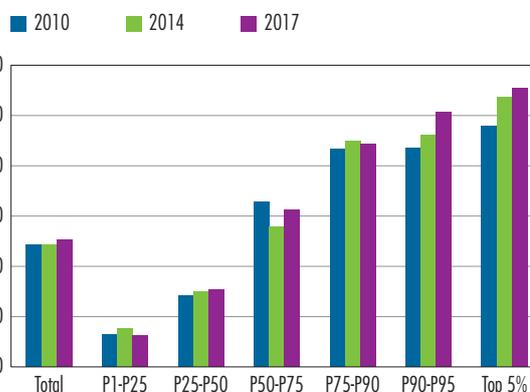### C4 Share of indebted households (all types of debt)
(%)
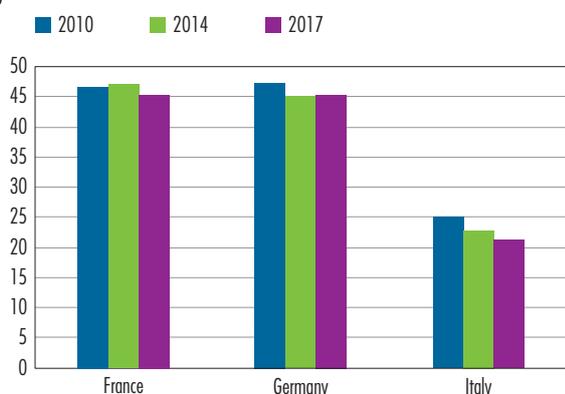
Source: Banque de France, INSEE and ESCB, HFCS survey 2010, 2014 and 2017.

C5 Share of households with mortgages in France by income level
(%)

Source: Banque de France, INSEE and ESCB, HFCS survey 2010, 2014 and 2017.
Note: The "P1-P25" category includes the 25% of households with the lowest gross income; the P25-P50 category includes the 25% with the next highest income. For the half of households with the highest income, category P50-P75 includes the 25% with incomes above the median income (the level above which half of the households are situated) but below that received by the quarter of households reporting the highest income. The latter are divided between the top 5% (Top 5%), the 5% immediately "below" (P90-P95) and the previous 15% (P75-P90).

For the top 5%, the share of indebted households increased from 48% to 56% (see Chart 5). Essentially, the source of this additional debt does not appear to be related to the main residence. Indeed, the share of households owning their main residence has remained stable and the average value of these properties has increased only slightly. In contrast, the share of households owning other property (e.g. second homes or investment property) has increased among the better-off households. For example, for households in the top 5%, between 2014 and 2017, it rose from 61% to 64% in France, and also increased in Germany.

The median amount of debt has above all increased for the highest income households
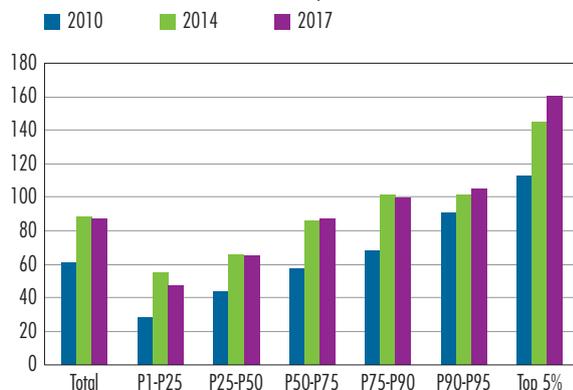
The rise in the share of indebted households observed for the wealthiest percentile resulted in an increase in the median debt[4] for indebted households in Germany and France, but not in Italy (see Table 1).

---

4 Median debt is the amount of debt that exceeds half of the most indebted households.

Bulletin
de la Banque de France
230/3 - JULY-AUGUST 2020

Credit and financing

BANQUE DE FRANCE
EUROSYSTÈME

5

C6 Median mortgage debt in France by income level

(in thousands of constant 2017 euro)

■ 2010 ■ 2014 ■ 2017

Source: Banque de France, INSEE and ESCB, HFCS survey 2010, 2014 and 2017.

In Germany, the increase in indebtedness affected all income levels except the top 5%. In France, between 2010 and 2014, all income levels saw an increase in debt, while between 2014 and 2017 this rise was concentrated among the highest earners. In the top 5%, the increase related both to mortgage loans (12%, see Chart 6) and other loans (26%).

Increase in property value

For most households, property assets, especially the primary residence, constitute the bulk of wealth (Garbinti and Savignac, 2018). Furthermore, according to the survey, changes in the value of property wealth, as assessed by households (see Chart 7), are consistent with those in property prices observed at the macroeconomic level (see Chart 1, except for the slight decline observed by households in Germany between 2010 and 2014).

C7 Value of the main residence of owner households (Aggregate and by income level)

(in thousands of constant 2017 euro)

■ 2010 ■ 2014 ■ 2017

France

Germany

Italy
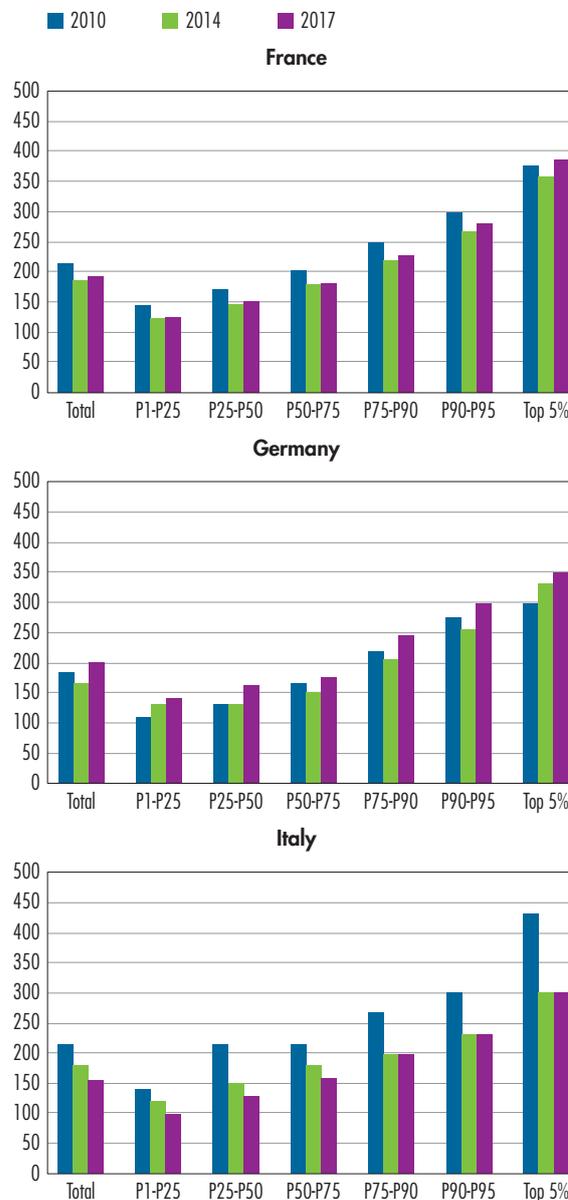
Source: Banque de France, INSEE and ESCB, HFCS survey 2010, 2014 and 2017.

T1 Median debt per household among indebted households

(in constant 2017 euro)

	Total debt			Mortgage debt			Other debt		
	2010	2014	2017	2010	2014	2017	2010	2014	2017
Germany	13,800	15,500	20,000	87,600	78,000	81,400	3,500	3,600	5,000
France	20,200	27,400	29,000	61,300	88,400	86,700	5,700	5,800	6,700
Italy	16,200	15,000	12,500	64,700	69,000	70,000	6,200	5,000	5,000

Source: Banque de France, INSEE and ESCB, HFCS survey 2010, 2014 and 2017.

Bulletin
de la Banque de France
230/3 - JULY-AUGUST 2020

Credit and financing

BANQUE DE FRANCE
EUROSYSTÈME

6

3 Mortgage debt creates particular vulnerabilities for France and Italy

For all three countries, there is an overall slight improvement (or little change) in aggregate indicators of household financial fragility between 2014 and 2017, after the period of deterioration in the wake of the 2010 crisis. The three indicators "debt to assets", "debt to income" and "repayments to income" are particularly clear in this respect. Despite the rise in Germany of the debt-to-income ratio (7 percentage points for the median ratio), financial fragility indicators of German households remain for the most part more favourable than those observed in France or Italy (see Chart 8). In particular, the loan-to-value (LTV) ratio is lower – and therefore more favourable – in Germany than in France or Italy. In all countries, the increase in the value of assets, coupled with the rise in debt, makes it possible to limit the value of the median debt-to-asset ratio.

However, in France and even more so in Italy, indebted households with high incomes ("top 10%", i.e. the 10% of households with the highest incomes) have seen an increase in the share of this debt in relation to the value of their assets or their income. For example, for indebted households with incomes in the top 5%, the debt-to-income ratio increased by 8 percentage points in France between 2014 and 2017 (from 0.99 to 1.07). This increase is modest, however, relative to the rise observed for these income levels between 2010 and 2014 (20 percentage points). Between 2014 and 2017, this same ratio increased by 23 percentage points in Italy (from 0.41 to 0.64), whereas it had remained relatively stable between 2010 and 2014. Conversely, in Germany, it decreased over the whole period (see Table 2)

Moreover, in all three countries, debt service to income ratios are higher for the lowest income levels than for other households. For households in the first income quartile (i.e. the 25% of households with the lowest income), repayments account for 13% of their income in Germany, 20% in France and over 40% in Italy. These figures are down compared with 2014 in Germany and France, but up sharply in Italy, by 12 percentage points.

C8 Median indicators of the financial fragility of indebted households
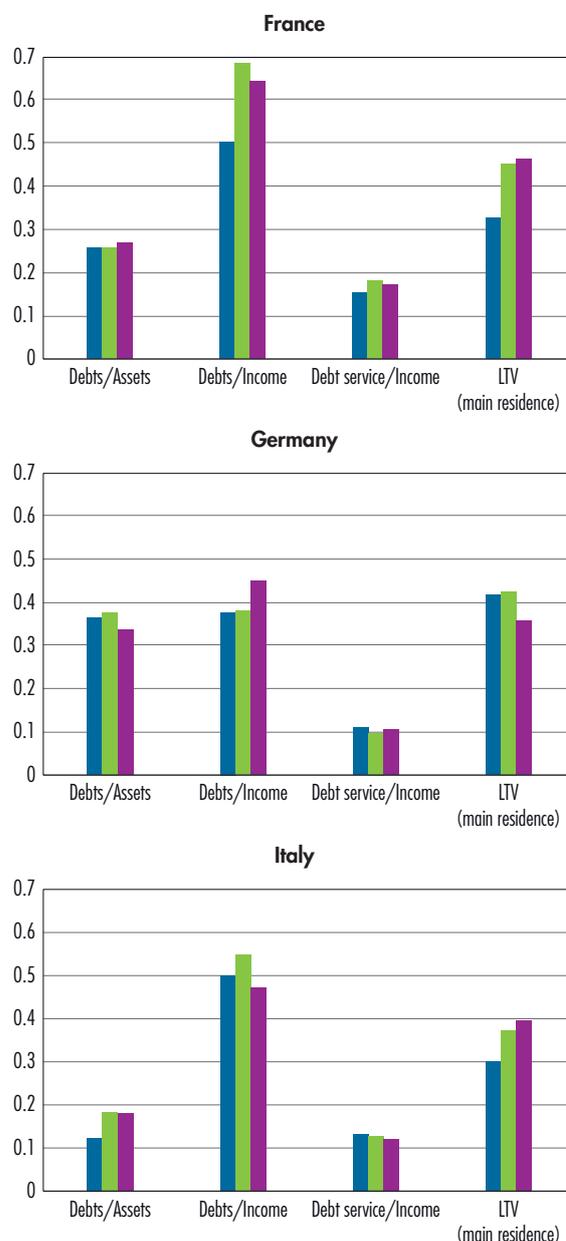
Source: Banque de France, INSEE and ESCB, HFCS survey 2010, 2014 and 2017.
Note: The loan-to-value (LTV) ratio is the ratio between the mortgage and the value of the property (here the main residence).

Bulletin
de la Banque de France
230/3 - JULY-AUGUST 2020

Credit and financing

BANQUE DE FRANCE
EUROSYSTÈME

7

T2 Indicators of financial fragility of indebted households by income level

	Debts/Assets			Debts/Income			Debt service/Income			LTV (main residence)		
	2010	2014	2017	2010	2014	2017	2010	2014	2017	2010	2014	2017
Germany												
Aggregate	**0.36**	**0.38**	**0.33**	**0.38**	**0.38**	**0.45**	**0.11**	**0.10**	**0.11**	**0.42**	**0.43**	**0.36**
P1-P25	0.44	0.48	0.83	0.24	0.19	0.28	0.12	0.14	0.13	0.25	0.48	0.51
P25-P50	0.38	0.46	0.40	0.21	0.21	0.29	0.10	0.10	0.12	0.44	0.50	0.36
P50-P75	0.42	0.38	0.36	0.31	0.41	0.40	0.11	0.09	0.11	0.44	0.45	0.41
P75-P90	0.34	0.36	0.29	0.78	0.70	0.69	0.13	0.11	0.10	0.44	0.41	0.34
P90-P95	0.29	0.33	0.29	0.73	0.83	0.77	0.09	0.09	0.11	0.36	0.43	0.37
Top 5%	0.26	0.23	0.23	0.69	0.55	0.54	0.08	0.06	0.08	0.46	0.34	0.27
France												
Aggregate	**0.26**	**0.26**	**0.27**	**0.50**	**0.68**	**0.64**	**0.15**	**0.18**	**0.17**	**0.32**	**0.45**	**0.46**
P1-P25	0.33	0.25	0.23	0.24	0.33	0.30	0.16	0.21	0.20	0.29	0.40	0.29
P25-P50	0.32	0.26	0.31	0.31	0.40	0.39	0.14	0.17	0.16	0.32	0.44	0.47
P50-P75	0.29	0.28	0.33	0.59	0.76	0.77	0.16	0.19	0.18	0.33	0.52	0.53
P75-P90	0.23	0.27	0.25	0.78	1.23	0.96	0.15	0.18	0.18	0.33	0.49	0.47
P90-P95	0.18	0.20	0.22	0.90	0.93	0.84	0.16	0.17	0.16	0.31	0.34	0.38
Top 5%	0.16	0.19	0.21	0.79	0.99	1.07	0.13	0.17	0.16	0.32	0.32	0.34
Italy												
Aggregate	**0.13**	**0.18**	**0.18**	**0.50**	**0.55**	**0.48**	**0.13**	**0.13**	**0.12**	**0.30**	**0.38**	**0.40**
P1-P25	0.30	0.39	0.30	0.76	0.84	0.66	0.30	0.30	0.42	0.42	0.32	0.38
P25-P50	0.17	0.25	0.21	0.39	0.47	0.49	0.15	0.19	0.16	0.26	0.39	0.44
P50-P75	0.16	0.22	0.22	0.63	0.55	0.35	0.15	0.14	0.12	0.31	0.42	0.40
P75-P90	0.09	0.13	0.15	0.45	0.54	0.32	0.11	0.11	0.10	0.33	0.31	0.35
P90-P95	0.05	0.11	0.14	0.28	0.41	0.67	0.09	0.09	0.10	0.18	0.27	0.40
Top 5%	0.06	0.10	0.15	0.40	0.41	0.64	0.08	0.07	0.08	0.27	0.36	0.41

Source: Banque de France, INSEE and ESCB, HFCS survey 2010, 2014 and 2017.
Notes: The "PX-PY" category is that whose bounds are the X and Y percentiles.
The loan-to-value (LTV) ratio is the ratio between the mortgage and the value of the property (here the main residence).

Due to the nature of debt in France and more generally in Europe (fixed-rate mortgage debt, regulation of down payment practices and the maximum monthly repayment amounts based on income), these changes do not appear to pose a major risk to household solvency and ultimately to the financial stability in the area, provided that economic conditions do not deteriorate too much.

Conclusion

The repercussions of the health crisis associated with the Covid-19 pandemic naturally raises questions as to the magnitude and consequences that a prolonged negative shock would have on households' incomes and their financial situation.

The regular collection and use of data on individual household situations regarding income, savings and consumption is therefore a crucial tool for analysing the risks of financial fragility and, more broadly, for studying the effects of public policies (taxation, regulation, monetary policy, see Gautier et al., 2020) on household financial behaviour (accumulation of savings, debt).

The next data collection exercise for the HFCS survey is planned for the end of 2020. It should provide a more precise understanding of the consequences of the health crisis on the wealth and income of European households, and in particular help to measure the extent to which the French institutional framework limits the risks weighing on the households most vulnerable to the economic shock associated with the health crisis.

Bulletin
de la Banque de France
230/3 - JULY-AUGUST 2020

Credit and financing

BANQUE DE FRANCE
EUROSYSTÈME

8

References

Arrondel (L.) and Coffinet (J.) (2019)
"Le patrimoine et l'endettement des ménages français en 2015: enseignements de l'enquête européenne HFCS et comparaisons internationales", *Revue de l'OFCE*, Vol. 161, No. 1, pp. 49-75.

Bricker (J.), Henriques (A.), Krimmel (J.) and Sabelhaus (J.) (2016)
"Measuring income and wealth at the top using administrative and survey data", *Brookings Papers on Economic Activity*, spring, pp. 261-331.

Dujardin (M.), Kelber (A.) and Lalliard (A.) (2015)
"Overvaluation in the housing market and returns on residential real estate in the euro area: insights from data in euro per square metre", *Banque de France QSA*, No. 37, spring, pp. 49-63
Download the document

Garbinti (B.), Goupille-Lebret (J.) and Piketty (T.) (2020)
"Accounting for wealth-inequality dynamics: methods, estimates, and simulations for France", *Journal of the European Economic Association*, July.

Garbinti (B.) and Savignac (F.) (2018)
"The role of real estate in euro area wealth inequality: lessons from the Household Finance and Consumption Survey", *Rue de la Banque*, No. 55, Banque de France, January.
Download the document

Gautier (E.), Penalver (A.) and Savignac (F.) (2020)
"Monetary policy and inequality: where do we stand?" *Eco Notepad*, Banque de France, No. 151, February.
Consult the post

HFCN, Household Finance and Consumption Network (2020a)
"The Household Finance and Consumption Survey: methodological report for the 2017 wave", *Statistics Paper Series*, European Central Bank, No. 35, March.

HFCN (2020b)
"The Household Finance and Consumption Survey: results from the 2017 wave", *Statistics Paper Series*, European Central Bank, No. 36, March.

Vermeulen (P.) (2016)
"Estimating the top tail of the wealth distribution", *American Economic Review*, Vol. 106, No. 5, May, pp. 646-650.

Bulletin
de la Banque de France
230/3 - JULY-AUGUST 2020

Credit and financing

BANQUE DE FRANCE
EUROSYSTÈME

9

Appendix
Methodological information

Reference periods

For simplicity, the periods covered by each of the survey waves for the three countries under review are referred to as 2010, 2014 and 2017. In practice, the survey periods in each country are not perfectly aligned and the reference periods may vary slightly from one country to another (see Table TA1).

Inflation

In this article, monetary amounts are adjusted using price developments by country based on the Harmonised Index of Consumer Prices (HICP). Specifically, in order to compare the monetary amounts observed in Waves 1 and 2 to the year 2017 (Wave 3), the coefficients listed in Table TA2 are applied. All monetary amounts (income and assets) presented in this article are therefore amounts in constant 2017 euro.

Income

Data on household income collected by the survey are based on gross income (i.e. before income tax and social security contributions). In order to compare debt and wealth levels by income level between countries, six income categories (from the least to the most affluent) are defined within each country, based on gross income percentiles (wages, pensions, transfers, income). The average amounts of income in each of these categories are listed in Table TA3 for 2017.

TA1 Survey reference periods by country

		Germany	France	Italy
Wave 1	Data collection periods	09/2010-07/2011	10/2009-02/2010	01/2011-08/2011
	Reference period (assets and debts)	Interview date	Interview date	31/12/2010
Wave 2	Data collection periods	04/2014-11/2014	10/2014-02/2015	01/2015-06/2015
	Reference period (assets and debts)	Interview date	Interview date	31/12/2014
Wave 3	Data collection periods	03/2017-10/2017	09/2017-01/2018	01/2017-09/2017
	Reference period (assets and debts)	Interview date	Interview date	31/12/2016

Sources: Banque de France and ESCB.

TA2 Inflation adjustment factor
(2017 prices)

	2014 Wave	2017 Wave
Germany	1.0220220	1.0954936
France	1.0156141	1.0976850
Italy	1.0000000	1.0788337

Sources: Eurostat, authors' calculations.

TA3 Average household income by income category
(Wave 3, 2017)

(in constant 2017 euro)

	Germany	France	Italy
Aggregate	**-14,051**	**40,503**	**33,830**
Income category			
P0-P25	13,262	13,694	9,362
P25-P50	31,246	26,205	19,800
P50-P75	51,123	41,028	32,183
P75-P90	80,754	60,356	52,689
P90-P95	117,039	81,425	76,541
Top 5%	224,819	143,146	135,764

Note: The "PX-PY" category is that whose bounds are the X and Y percentiles.
Source: Banque de France et SEBC.

Bulletin
de la Banque de France

230/3 - JULY-AUGUST 2020

Credit and financing

BANQUE DE FRANCE
EUROSYSTÈME

10