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Where do French people invest their savings?

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France has savings in abundance, but little of it goes towards long-term business financing – particularly equity financing.

Real estate assets form a dominant presence in household wealth, with financial assets essentially made up of life insurance contracts and bank deposits. Fewer than 12% of households owned equities directly in 2015, down from 16.3% in 2004.

This situation cannot be put down to irrational household behaviour. Rather, the explanations lie with inadequate albeit improving returns on equity investments, particularly in comparison with the US stock market, the small size of the French market, domestic levels of financial literacy and advice, which could be raised, and regulatory and tax incentives, which do little to support risk taking.

Keywords: households, financial assets, savings, national accounts, intermediation, securities ownership, portfolio selection, equities, debt securities, CIS, life insurance, pension funds

JEL codes: D14, D91, E21, G11, G12, G20, H21, H24, H31, I20, N22, N24

NB: We wish to thank Adeline Bachellerie and Clémence Charavel for updating the look-through information on the French intermediation chain to bring it up to 2016.

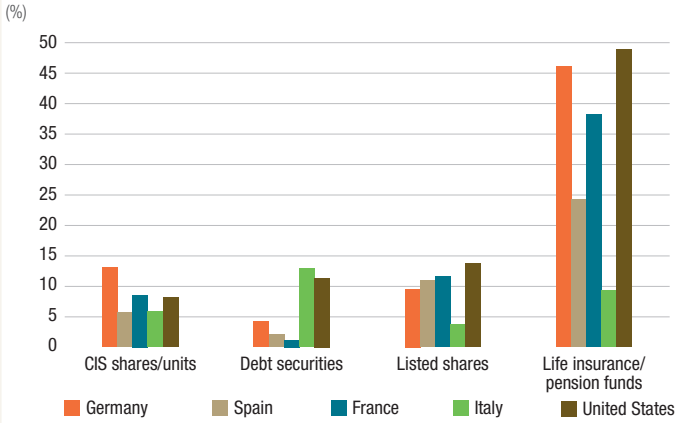
Key figures

From 26% to 40%
increase in the share of life insurance in the financial assets of French households between 2000 and 2016

11.7%
percentage of households owning listed equities in 2015 (4.6 points lower than in 2004)

39%
share of household financial assets allocated to resident non-financial companies

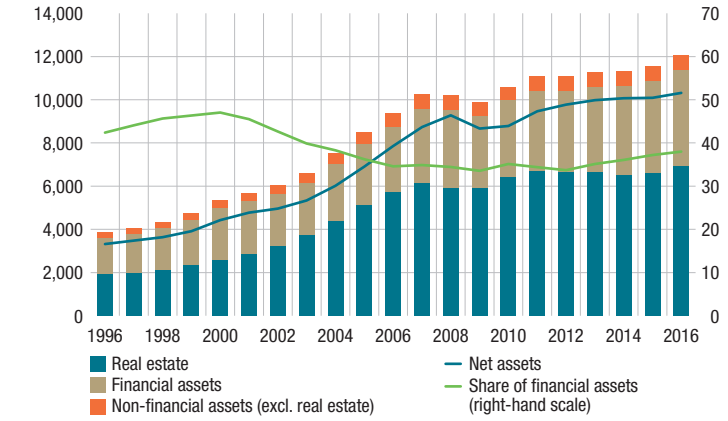
Household ownership rates, by type of financial asset



Sources: Banque de France, ECB, *2014-2015 Households Finance and Consumption Survey* (HFCS), *2013 Survey of Consumer Finance*, Federal Reserve, Eurostat, Office for National Statistics (ONS).

France has savings in abundance, but little of it goes towards long-term business financing (Le Lorier, 2017), with potentially negative consequences for capital expenditure (Villeroy de Galhau, 2015). Part 1 of this article supports this observation, while Part 2 provides some explanations as to why this is the case, with a particular focus on equity investment. From the perspective of issuers, equities are the best instrument for financing long-term investment, because they bear the primary risk. From the perspective of savers, a portfolio should theoretically contain an equity portion that ought to increase in size as the investor's horizon lengthens so as to benefit from the equity premium and tap into mean reversion effects, thus improving both sides of the risk/reward trade-off. Accordingly, equities are extremely well-suited to long-term business financing.

C1 Composition of French household wealth
(EUR billions)



Sources: Insee, Banque de France.

1. French people are investing more in life insurance and internationally

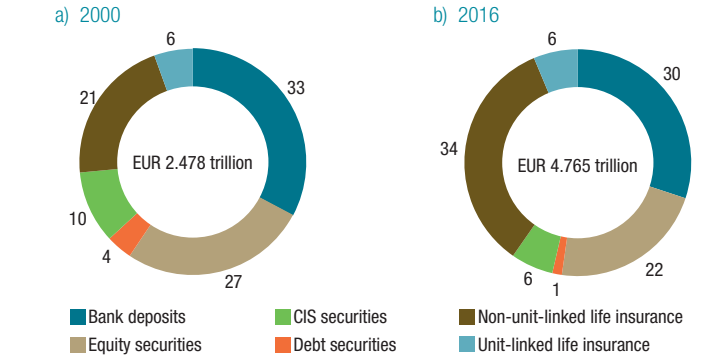
Wealth is primarily made up of real estate

The savings rate in France has been relatively stable over the last two decades and is among the highest in Europe (14.5% at end-2016). Households' gross assets have tripled in size in the last 20 years and overtook the EUR 12 trillion mark at end-2016 (see Chart 1). These savings are primarily made up of real estate assets (55%), with financial assets accounting for just 38%. This share, which stood at 47% in the late 1990s, fell over the 2000-05 period amid surging housing investments, rising real estate prices, and underperforming financial markets. Since 2011, however, the share of financial investments in household wealth has edged higher.

Financial assets chiefly comprise life insurance contracts and bank deposits

In France, household financial assets totalled EUR 4.765 trillion at end-December 2016 (see Chart 2), or more than twice gross domestic product (GDP) (214%). Households put their savings largely in life insurance and bank deposits, such as overnight deposits, passbooks and home savings plans (PELs), which account for 40% and 30% respectively of their outstanding investments.

C2 Structure of French household financial assets
(%)



Source: Banque de France.

Of the EUR 1.433 trillion in bank deposits, around one-half (EUR 705 billion) goes into regulated savings products, including Livret A passbooks, sustainable development passbooks (LDDS), popular savings passbooks (LEPs) and PELs. Securities make up 30% of their wealth, split into 22% for equity securities, 6% for shares/units of collective investment schemes (CIS) and 2% for debt securities. Equity securities largely comprise unlisted equities and other investments (17% of the total), which mainly reflect the value of companies owned by their executives and/or employees. Direct ownership of listed equities accounts for a mere 5% of investments, as compared with 8% in 2000. Since 2000, the structure of wealth has changed mainly to feature a bigger presence for life insurance, whose share has risen from 26% to 40%, and a smaller one for securities, whose share has fallen from 41% to 30%.

Intermediated savings gain ground

In 2016, households invested 76% of their assets with financial intermediaries, such as banks, insurers and CIS, compared with 69% in 2000. Accordingly, it is worth applying a look-through to the intermediation chain[1] to see where French people are ultimately steering their savings (Bachellerie et al., 2016). We find that the largest share (42%) goes towards financing non-resident agents, while 39% is allocated to resident non-financial companies (see Chart 3).

The share of non-residents has risen considerably since the mid-1990s, climbing from 24% in 1995 to 42% in 2016. Conversely, a substantial share of the financing of large French companies and the French State comes from foreign investors: 44.5% of the capital of French CAC 40 companies (Guette-Khieter, 2017) and just under two-thirds of France's government debt belong to non-residents (see Agence France Trésor news releases).[2] Monetary and financial unification, it seems, has enabled French and foreign savers to take better advantage of the benefits of international portfolio diversification. In terms of asset classes, applying a look-through to life insurance vehicles and CIS securities held by households[3] reveals a small share for equity products (31%) compared with fixed income products (69%) (see Chart 3).

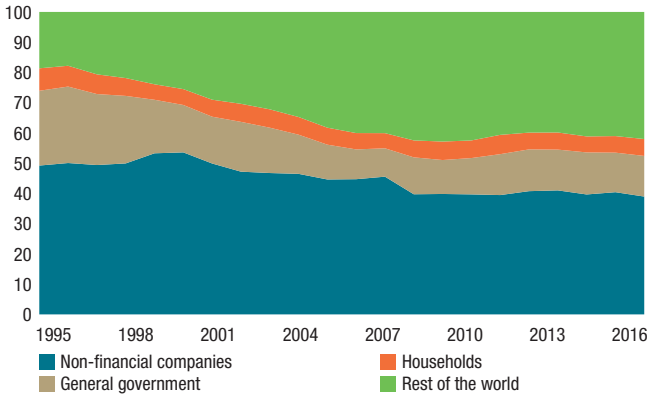
1 The look-through approach shows how financial intermediaries direct funds collected from households towards non-financial agents, including non-financial companies, general government, non-residents and households themselves.

2 Based on data provided by the Banque de France. See *http://www.aft.gouv.fr/rubriques/qui-detient-la-dette-de-l-etat-_163.html*

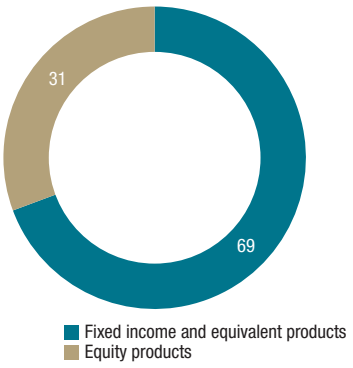
3 Look-through for deposits with credit institutions not included.

C3 Structure of households' final investments (at end-2016)
(%)

a) By sector

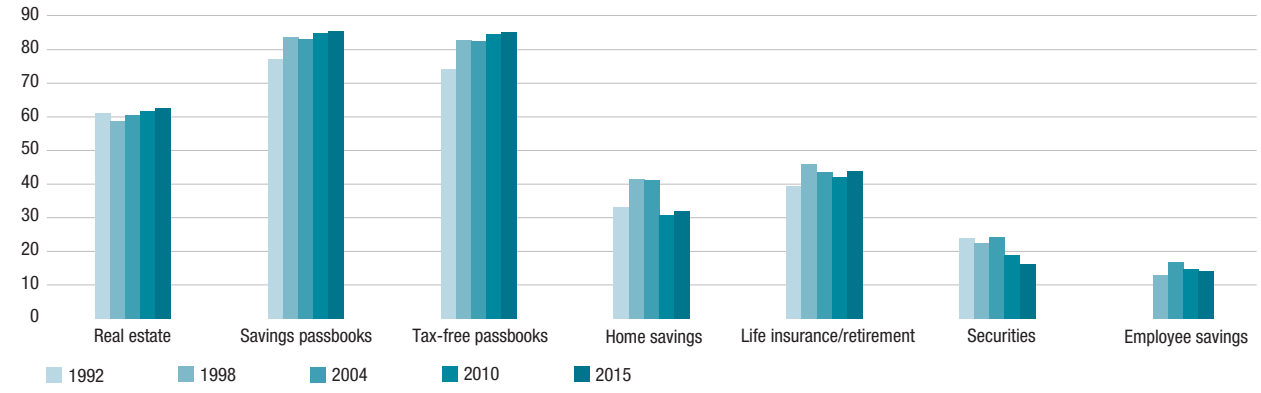


b) By asset type



Source: Banque de France.

C4 Household ownership rates, by type of asset
(%)



Source: Insee.

While ownership of ordinary and regulated passbooks is widespread (around 85% of households), fewer than one in two households engages in other types of financial investments (see Chart 4). Since 1992, the percentage of people owning real estate assets has risen slightly, from 61% to 63%. The ownership rate for bank passbooks has shown the largest increase (around 10 points) while securities investments have declined, shrinking from 24% of households in 1992 to 16% in 2015. In particular, the percentage of shareholding households fell from 16.3% in 2004 to 11.7% in 2015 according to the European *Household Finance and Consumption Survey* (HFCS). However, for the first time since 2008, the percentage increased between March 2016 and March 2017, gaining 1.4 points according to the most recent Kantar TNS Sofres survey in 2017.

Box 1

International comparisons: the level and structure of financial assets differ markedly across countries

The level and structure of financial wealth vary fairly widely across the large European countries, chiefly reflecting economic and institutional factors. In the United Kingdom, for example, the specific features of the funded retirement system account for the major role of pension funds and the presence of retirement savings in the financial assets of UK households.

The average wealth of French households (EUR 71,375) is on a par with that of Italians and Germans. The average level of individual wealth in the United Kingdom is markedly higher (EUR 112,580) for the reasons mentioned above. The average wealth of Spanish households is far lower (EUR 43,660) and needs to be seen in the context of that country's lower GDP. Average financial assets per capita increased by a factor of 2.5 in France between 1995 and 2016, rising from EUR 27,870 to EUR 71,375. This growth rate is comparable to that seen in other large European countries (see Chart a), with the exception of the United Kingdom, which experienced a bigger increase with a more volatile growth profile because of the high proportion of securities.

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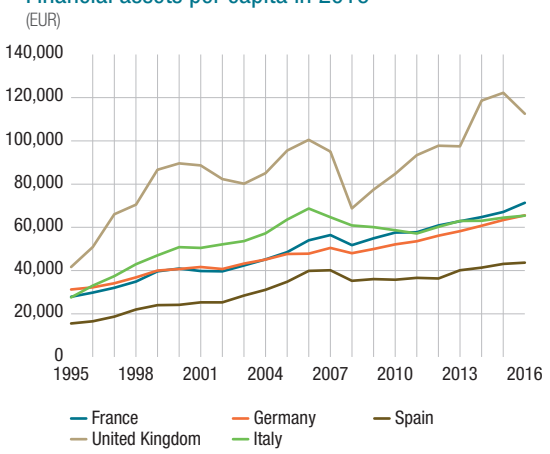
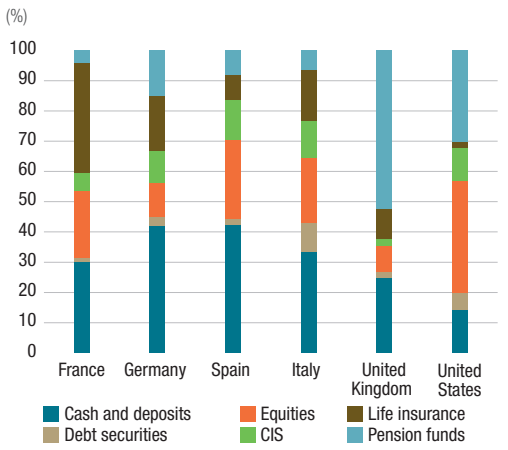
Ca Financial assets per capita in 2016



Sources: Eurostat, Banque de France, Federal Reserve.

Cb Structure of household investments in 2016

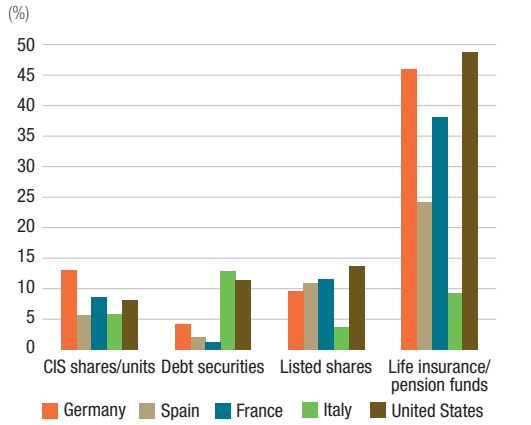


Sources: Eurostat, Banque de France, Federal Reserve.

On the continent, Germany and Spain stand out because of the high share of bank deposits (over 40%), while Italy features a relatively large share of debt securities, particularly government bonds, which enjoy preferential tax treatment (see Chart b). Life insurance occupies a significant share in France and Germany. As regards direct holdings of listed and unlisted shares, the proportions are comparable in France, Spain and Italy, and are higher than in Germany[1] and in the United Kingdom.

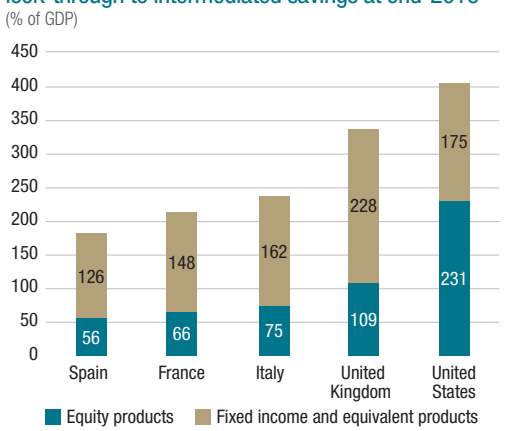
The European *Household Finance and Consumption Survey* and the US *Survey of Consumer Finance* reveal markedly different ownership rates, in particular in life insurance and pension funds (see Chart c). Conversely, securities holdings are more uniform across the

Cc Ownership rates by type of financial asset



Sources: Banque de France, ECB, *2014-2015* Households Finance and Consumption Survey (HFCS), *2013 Survey of Consumer Finance*, Federal Reserve, Eurostat, Office for National Statistics (ONS).

Cd Share of financial assets, by asset type after applying look-through to intermediated savings at end-2016[a)]



a) Look-through applied to investments in the form of life insurance, shares in pension funds and collective investment undertakings.
Sources: Banque de France, ECB, *2014-2015* Households Finance and Consumption Survey (HFCS), *2013 Survey of Consumer Finance*, Federal Reserve, Eurostat, Office for National Statistics (ONS).

1 There is some uncertainty over the estimated share of unlisted equities in Germany.

.../...

euro area's four main economies: in each country, fewer than 15% of households own securities, although the percentage of people holding listed shares in France (11.7%) is slightly higher than in neighbouring countries. The distribution of securities to households has tended to decline in recent years in line with a widespread trend in Europe. By comparison, 13.8% of US households hold listed shares directly and 48.8% hold them directly or indirectly, notably through pension funds, which account for 30% of households' financial assets. The share of equity products, after applying a look-through to pension funds and investment funds, amounts to 230% of GDP in the United States, 109% in the United Kingdom, but just two-thirds of GDP in France (see Chart d).

2. Households and the stock market participation puzzle

In France and abroad, the stock market participation puzzle (Haliassos and Bertaut, 1995) persists. Whereas, as mentioned in the introduction, any portfolio should in theory include at least a portion invested in equities, the participation rate, i.e. the percentage of shareholding households and the amounts held are generally low (Badarinza et al., 2016); this is particularly striking in the case of high-earning households, which in principle should be better informed and more likely to take risks. To attempt to solve this puzzle, it is standard practice to draw a distinction between demand-side factors, which appeal to the saver's rationality, and supply-side factors relating to market imperfections and institutional considerations (see for example Arrondel and Masson, 2014b).

Savers are mostly rational in their attitude towards investments that offer insufficient returns and given their level of financial literacy, which could be improved

Academic research has explored many factors that determine household holdings of risky assets (Badarinza et al., 2016). Rather than being rational, some of these factors may be personal in nature and even psychological, including IQ (Grinblatt et al., 2011), political opinions (Kaustia and Torstila, 2011), faith in institutions (Guiso et al., 2008), faith in financial institutions (Gennaioli et al., 2015), or childhood experiences (Malmendier and Nagel, 2011). To explain the observations made in Part 1, however, it is pointless to refer to such factors if savers behave according to portfolio selection theory (see for example Markovitz, 1952, and Sharpe, 1964). And for the most part, French savers do appear to act rationally. Even so, it is necessary to ask whether equity investments were riskier in France than elsewhere in the past and whether an improved level of financial literacy among French people would help to correct the gap between theoretically expected and actual behaviour.

Potentially insufficient returns on equity investments

Using a recompiled series for the CAC 40 stock index from 1854 to 1987, and a CAC 40 series from early 1988 to end-2008, Le Bris (2009, 2012) highlights the following results.

• Total returns (price change + dividend yield) on a real basis (less inflation) of equity investments are weak, at 1.08% per year as a geometric average, without taking into account holding, transaction and tax costs, and the risk premium over government bonds, which stands at 0.5 percentage point (Le Bris, 2009). By way of comparison, the total real return on US equities is estimated to be 6.7% (Siegel, 1994).

Box 2

Savers are essentially rational

Theory tells us that ownership of risky assets is a function of three sets of factors (see for example Arrondel and Masson, 2014 b): (i) preferences, notably with regard to time and risk, (ii) available resources in terms of income and assets, potentially subject to liquidity constraints, and (iii) expectations regarding income and expenditures as well as on returns on different asset categories, subject to more or less uncertainty. These are essentially the factors that come out whether we are analysing (i) survey data or (ii) national accounts data.

Survey data

To explain the change in the investments of French households, and particularly their reduced ownership of risky assets, Arrondel and Masson (2016 and 2017) use data from Pater *(Patrimoine et préférences vis-à-vis du temps et du risque)* surveys of assets and risk and time preferences, which were constructed at their initiative using a panel format and carried out by TNS Sofres, a survey firm. The surveys covered four rounds of 3,500 households between May 2007 and December 2014 (Arrondel and Masson, 2014a). The authors found that:

- following the financial crisis and particularly after the sovereign debt crisis, households adopted a more prudent financial approach, putting more of their savings into safer investments and curbing their risky investments;
- household downgraded their employment income expectations to an increasing degree between 2007 and 2014;
- corrected for age-related effects (portfolios should hold fewer risky assets as investors get older), risk aversion as measured by the authors' own scoring method has not increased since 2007;
- reduced risk taking therefore reflects gloomier expectations.

The lack of a deterioration in risk aversion and the role of expectations are consistent with portfolio theory. However, Arrondel and Masson (2017) identify a discrepancy between, on the one hand, an improvement in expected returns on equity since 2011 and increased interest in risk taking since 2014, and, on the other, the ongoing decline in direct and indirect share ownership levels. They suggest that this could be attributable to a time lag and/or non-recognised factors, for example relating to the supply of financial advice (see below "Room for improvement in financial advice"). The increase in the number of individual shareholders and in share ownership rates in 2017 identified by the Kantar TNS Sofres survey (see above) seems to argue in favour of a time lag.

National accounts data

Avouyi-Dovi et al. (2017a and b) decompose financial investments into six categories: deposits, passbooks, time deposits, home savings plans (PELs), equities and life insurance. They model the relative shares of these financial asset categories by making them dependent on relative returns and the wealth level. This approach makes it easier to gain an overall understanding, by grouping economically relevant asset classes between which substitutions are made.

The small number of assets selected makes it possible to perform modelling based on a portfolio selection approach in which a multivariate analysis of assets is performed. The framework employed is that of a FAIDS model with the specification suggested by Blake (2004), which is produced using an optimisation process (maximisation of a utility function under a budget constraint). According to this approach, the share of asset i at t θ_i depends on the returns of various assets i at t r_{it}, on wealth at t W_t and on exogenous variables z_{Jt}.

$$\theta_{it}^* = a_i^* + b_i^* \ln [W_t (1 + r_{wt})] + \sum_{j=1}^{N} c_{ij}^* \ln (1 + r_{jt}) + \sum_{j=1}^{M} h_{ij}^* z_{jt} + u_{it} \quad (1)$$

.../...

Since a direct estimation of equation (1) is not generally possible because of the statistical properties of the series, which are typically non-stationary, quadratic adjustment costs are introduced (Christophides, 1976, and Blunt and Upcher, 1979). The final specification is the following:

$$\theta_{it} = a_i^* + b_i^* ln[W_t(1 + r_{wt})] + \sum_{j=1}^{N} c_{ij}^* ln(1 + r_{jt}) + \sum_{j=1}^{M} h_{ij}^* z_{jt} + \sum_{s=0}^{K-1} b_{is}^* \Delta ln[W_t(1 + r_{wt-s})] + \sum_{s=0}^{K-1} \sum_{j=1}^{N} c_{ijs}^* \Delta ln(1 + r_{jt-s}) + \sum_{s=0}^{K-1} \sum_{j=1}^{M} h_{ijs}^* \Delta ln(z_{jt-s}) + \sum_{j=1}^{N-1} \lambda_{ij}^* \Delta\theta_{it} + \zeta_{it} \quad (2)$$

N denotes the number of modelled assets (6) and M is the number of exogenous variables[1] (4). This system is estimated using the 3SLS method between Q1 1978 and Q4 2015 (156 quarters) for five category shares, with the sixth (PELs) being obtained by difference. The results are as follows:

Return on	Impact on the shares of six investment categories					
	Deposits	Passbooks	Time deposits	PEL	Equities	Life insurance
Deposits	0.94	-0.06	-0.41	0.19	0.15	-0.01
Passbooks	0.04	1.12	0.68	-0.20	-0.19	0.00
Time deposits	-0.03	-0.09	0.65	0.16	0.17	-0.02
PEL	0.04	-0.03	0.59	0.29	0.10	0.04
Equities	-0.09	-0.01	0.04	0.28	1.25	-0.10
Life insurance	0.00	0.07	0.33	-0.30	-0.08	1.02

Thus, for example, a 100 basis point increase in the return on equities increases the share of equities by 1.25 percentage points, increases the share of PEL home savings plans by 0.28 of a percentage point (as these products are complementary), reduces the shares of deposits and life insurance by 0.10 of a percentage point (as these products are substitutable), while holdings of other types of savings are not greatly affected.

1 The model is estimated by introducing four exogenous variables: disposable income (relative to financial wealth), the dependency ratio (share of people over 65 in the total population) and two variables capturing household liquidity constraints (Blake, 2004).

• French equities are more volatile than US equities. The volatility of French equities, measured by the annualised standard deviation of monthly price changes over rolling 12-month and ten-year periods, is weak (typically around 5%) and below that of US equities before 1914. It increases steadily until the 1940s (between 25% and 30%), eases back to around 15% in the 1960s, before climbing again from the 1980s (approximately 20%), with the result that post-war volatility levels during normal times exceed the pre-1914 peaks during times of crisis (war of 1870, crisis at the close of the 19th century) (Le Bris, 2012). In comparison, the volatility of US equities has been stable over time, typically staying within a range of 8% and 15% apart from a spike during the 1930s.

The author attributes these poor results to the effects of two world wars and inflation, as regards the low returns (owing to price control measures and financial repression,[4] because equities are real assets and hence in principle protected against inflation), to monetary instability (end of the gold standard and increase in inflation) and to the increase in government deficits as regards volatility.

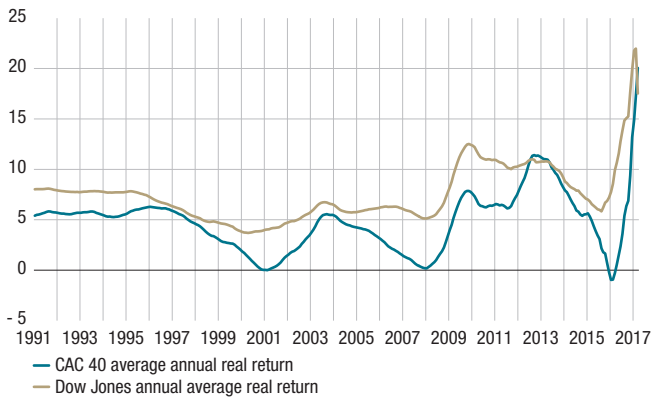
4 In academic research on finance, this term refers to measures that impede the free allocation of savings.

However, over the recent period (January 1991-March 2017), without equalling the Dow Jones, the CAC 40 has recorded annualised real returns (dividends reinvested) of 5.4%. This is an attractive level for investors whose investment horizon is sufficiently long, despite the relatively high volatility and market crashes (see Table 1 and Chart 5). Thus, at the start of 2017, the average annual return on the CAC 40 index was positive regardless of when the initial investment was made provided it was before December 2015 or after March 2016. Even in the case of an initial investment at the top of the cycle (end-2007 and end-2000), the risk of capital loss looks small, with the real return still slightly positive. The length of the holding period and the investment date do however remain key parameters that must be taken into account when making an equity investment.[5]

What is more, a comparison of the total return (change in price and reinvested coupons/interest) on CAC 40 equities and French government bonds over a long period shows that the equity premium is moderate for markedly higher average volatility. For an initial investment made in 1978 and a holding period of over ten years, the average annual total return on the CAC 40 is far higher than that of a Livret A passbook but moderately higher than the average yield on French government bonds maturing in more than seven years (see Table 2). The gap in returns is fairly wide between 1978 and 2000 (approximately 5% on average) but narrows to just 1.1% over the entire 1978-2016 period because of the two stock market crashes in the 2000s. By contrast, the volatility of the return on equities is almost three times higher than that of government bonds on average. Furthermore, if an equity investment is made through a fund, management expenses are higher for equity funds (1.7% on average between 2005 and 2016) than for bond funds (0.5%),

C5 Average annual real return in March 2017, based on initial investment date

(%)



Sources: Bloomberg, Insee, StatBureau; Banque de France calculations.

T1 Real returns and volatility, CAC 40 and Dow Jones indexes

(%)

	CAC 40 average annual real return	CAC 40 average volatility	Dow Jones average annual real return[a)]	Dow Jones average volatility[a)]
2012-2017	7.9	8.9	10.3	5.5
2008-2017	0.2	11.1	5.1	8.7
2002-2017	1.5	10.2	4.7	8.0
1997-2017	5.9	11.1	6.3	8.1
1991-2017	5.4	11.0	8.0	7.8

a) Calculations made using the S&P 500 yield results that are very close to those obtained for the Dow Jones.
Sources: Bloomberg, Insee, StatBureau; Banque de France calculations.

T2 Comparative total return (price change and reinvested coupons/dividends) and volatility of an investment in equities, bonds or a Livret A passbook

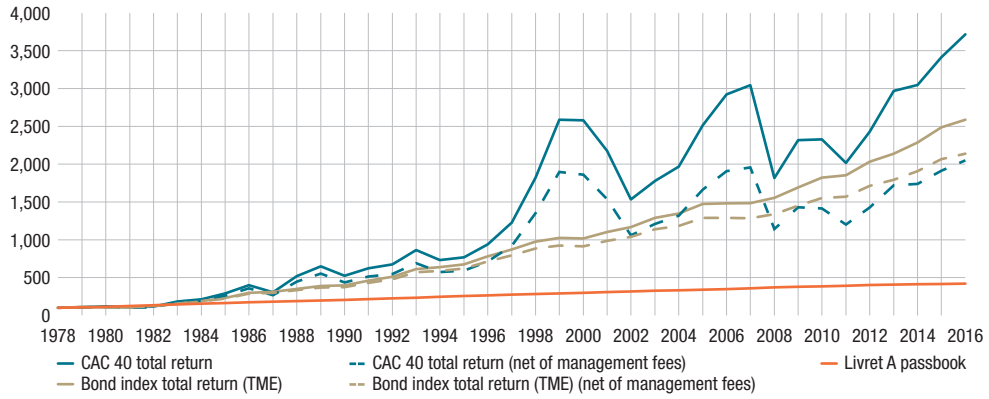
(%)

	Average annual return			Average annual volatility		
	CAC 40	Average yield to maturity of French govt. bonds	Livret A	CAC 40	Average yield to maturity of French govt. bonds	Livret A
1978-1990	14.8	12.2	6.2	29.2	10.7	1.5
1978-2000	15.9	11.1	5.1	24.7	8.9	1.7
1978-2016	10.0	8.9	3.8	23.6	7.5	2.0

Source: Bloomberg; Banque de France calculations.

5 These results correspond to "buy and hold" type behaviour whereas in practice savings are usually built up over several years, making it possible to smooth returns. Similarly, we consider here a pure investment in French equities whereas diversification of portfolios, both geographically and in terms of asset classes, would make it possible to improve the risk-reward trade-off.

C6 Comparative cumulative returns of an investment in equities, government bonds or a Livret A passbook (1978=100)



Source: Bloomberg, Banque de France calculations. The TME is the average yield to maturity of French government bonds maturing in over seven years. Management fees are calculated based on fees income observed for French equity and bond funds since 2005 (estimated for the 1978-2004 period).

cancelling out the additional return generated by equities over the period under review (1978-2016) (see Chart 6).

Financial literacy could be improved

Better financial literacy goes hand in hand with a greater probability of owning equities (Van Roij et al., 2011). International comparisons show that France does not rank especially high in this regard.

• Lusardi and Mitchell (2014) measure financial literacy by the percentage of survey respondents who are able to correctly answer three questions about calculating compound interest, the effect of inflation on the real return of a fixed income investment, and the concept of diversification. In just two countries (Germany and Switzerland) out of the 12 where surveys were carried out, at least one-half of respondents provided the right answer to the three questions. France, whose results were studied in detail by Arrondel et al. (2013), ranked about average (30.9% of respondents answered the three questions correctly), ahead of Italy and Japan and close to the USA (30.2%), where equity ownership levels are much higher.

• As part of a survey conducted in November 2016 in ten Western European countries, Allianz updated a portion of the abovementioned results. The percentage of correct answers to the same three questions was virtually unchanged for France (30%) and in line with the average for all the countries surveyed. Conversely, when two harder questions were added about risk-related concepts (expected returns and the risk-reward trade-off), France fell to bottom-equal with Portugal, with approximately 7% of correct answers to the five questions, compared with an average of just under 12% for the ten countries surveyed.

However, in a recent report (OECD, 2017), France ranked first for financial literacy among the 18 G20 countries that provided comparable data, with an average of 14.9 out of a possible maximum of 21, compared with an all-country average of 12.7. Whatever the case may be, as Guiso and Viviano (2015) point out, the positive relationship between financial literacy and equity ownership could also reflect a reverse causality, i.e. people who own equities have an interest in improving their financial literacy. In this regard, Arrondel et al. (2013) find that people with a

high level of financial literacy are more likely to be committed to a specific financial plan, such as preparing for retirement. However, Guiso and Viviano (2015), who looked at month-by-month investment decisions by clients of a major Italian bank between January 2007 and October 2009, demonstrate that more financially literate investors made better financial choices during the crisis, even if their returns were not dramatically superior to those of less literate investors. Without being a perfect solution, financial literacy is thus helpful to ensuring that portfolios are more effectively allocated, by promoting a better understanding of the advantages and risks associated with investments and by "de-demonising risk". According to an IFOP survey commissioned by the Ministry of the Economy in September 2016, 85% of French people have never received budgetary or financial education at school or university. The government has therefore launched a national financial literacy strategy and asked the Banque de France to conduct it nationally. Some practical steps have already been taken, including setting up a web portal to help people with money questions, and signing teaching conventions with regional education authorities. While the primary goal is to tackle social exclusion and overindebtedness, building budgeting and financial skills will only help to promote the spread of products with a more appropriate risk-reward profile, which will benefit savers.

Equity markets are insufficiently developed, imperfect and made unattractive by the regulatory and tax environment

Supply-side factors that public policy can influence include the volume of available equities, which can be adjusted directly through privatisations, the quality of financial advice, which savers feel could be improved, and regulatory and tax incentives, which do not support risk taking in France.

Size of the equity market and privatisations

The higher level of equity penetration in US household wealth needs to be considered in the light of America's market capitalisation, which, at over USD 27 trillion, is equivalent to 1.5 times US GDP. By comparison, the capitalisation of Euronext, the pan-European stock exchange created through the merger of the Paris, Brussels, Amsterdam and Lisbon exchanges, is EUR 3.3 trillion, or 0.9 times the GDP of the four countries where these European financial centres are located. An increase in the volume of equities in issuance might generate more demand (Christelis et al., 2013; Arrondel et al., 2016), as illustrated by the major rounds of privatisation that took place in France in 1986 to 1988, 1993 to 1995 and 1997 to 2002. The percentage of people owning equities, defined as holders of listed shares relative to the population of people aged over 15,[6] increased markedly between 1986 and 1992 (from 7.3% to 9.1%), from 1992 to 1994 (from 9.1% to 12.3%) and from 1999 to 2003 (from 12.6% to 16.8%).

Room for improvement in financial advice

In theory, good financial advice should enable observed portfolio composition to come more into line with that recommended by theory by giving a larger place to equities, particularly among middle-aged high-income households. Furthermore, the results of a TNS Sofres survey carried out for an economics conference in 2012 revealed that, when it comes to investing, French people feel less well informed about securities than about bank products. However, research in this area, which has most often focused on the United States, shows that financial advice is often of little use to savers, as it is skewed by agency issues and not closely followed by households.

6 Sources: Insee and TNS Sofres.

• The role of brokers in particular has been studied in the United States, where they are often involved in financial product investments. Bergstresser et al. (2009) show that broker-sold mutual funds offer weaker returns than direct-sold mutual funds, even after factoring in management expenses. Meanwhile, Christoffersen et al. (2013) show that broker fees and commissions significantly influence flows (which increase with commissions) and performances (higher commissions are associated with lower returns).

• As regards financial advisors, Mullainathan et al. (2012) show, once again for the United States, that they do not correct investor biases and may even encourage those that are in their interest while opposing those that do not earn them commissions. Using data for Germany, Hacketal et al. (2012) find that, when compared with the performance of holder-managed accounts, involving financial advisors in the management of securities accounts results in a deterioration in net returns and in the risk-reward trade-off, notably because of overly frequent transactions. Examining portfolios held by Canadian households between January 1999 and June 2013, Foerster et al. (2017) highlight a substantial increase (30%) in the share of risky assets owing to the involvement of financial advisors, but also find that advisors do not tailor advice to customer profiles (age, risk aversion, job status, etc.), even though customers pay handsomely for this advice: expenses are 2.7% a year, so financial advisors appear to capture the bulk of the additional return generated for customers, who go unrewarded for their additional risk taking.

• Whatever the case may be, Bhattacharya et al. (2012) find, based on German data from one of the country's largest brokers, that there is only weak demand for unbiased financial advice, coming from investors who need it least, insofar as they are both wealthy and financially literate, and who do not follow the advice received.

Accordingly, although they raise questions of their own, robo advisors could provide some improvements in this regard (Philippon, 2017).

Regulatory and tax incentives not supportive of risk taking

Regulation of deposit rates and taxation of savings income offer little incentive for households to hold risky assets (Banque de France, 2015).

Regulated savings

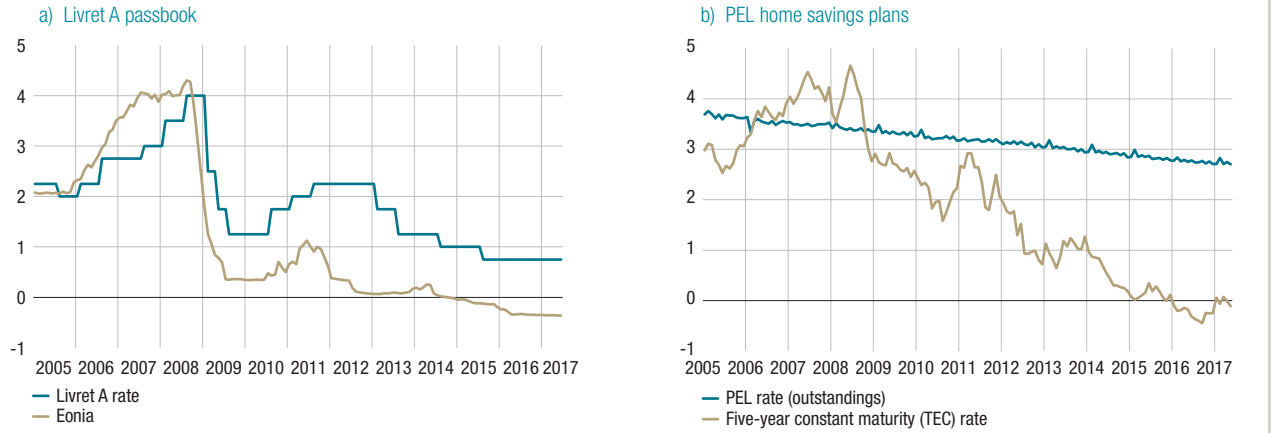
Interest rates on regulated savings have exceeded market rates since the financial crisis (see Chart 7). At the close of 2016, the average rate of return on PELs stood at 2.74% as compared with -0.2% for five-year government bonds. What is more, distribution of Livret A passbooks, which are guaranteed by the government, was opened up in 2009 and the ceilings on Livret A and LDD passbooks were significantly raised between end-2012 and early 2013. As a result, outstanding amounts in regulated passbooks (Livret A, Livret Bleu, LDD and youth passbooks) stood at EUR 356 billion at the end of 2016, compared with EUR 259 billion for PELs, or 12.7% of households' gross financial assets, up from EUR 190 billion and EUR 206 billion respectively, or 11.6% of households' gross financial assets overall in 2006. In a setting marked by the financial crisis followed by the sovereign debt crisis, it makes sense that French households should have steered their savings towards investments that were not only safe and liquid,[7] but that also paid market-beating rates, with government backing ensuring that they enjoyed the best of all possible worlds.

Taxation of savings income

In theory, to avoid introducing distortions in agent choices, taxation of savings income should be neutral over time and across savings instruments.

7 At the end of 2016, 58.3% of the outstanding amounts in PELs was held in accounts that had been open for more than four years. Provided the plan was opened less than 12 years earlier, such accounts may be liquidated without an interest rate penalty relative to the initially set level and without being subject to interest taxation under income tax.

C7 Regulated savings and market rates
(%)



Source: Banque de France.

• Taxation should not create distortions in the temporal allocation of savings (Atkinson and Stiglitz, 1976). In particular, it should not be confiscatory, i.e. it should not affect savings on a cumulative basis, leading to negative real returns (Judd, 1985, and Chamley, 1986). In this regard, a problem lies in the recognition of inflation, whose optimal level is generally estimated for various reasons at just under 2% (Drumetz et al., 2015).[8] The simplest solution would be zero taxation. Failing that, the tax rate should be as low as possible.

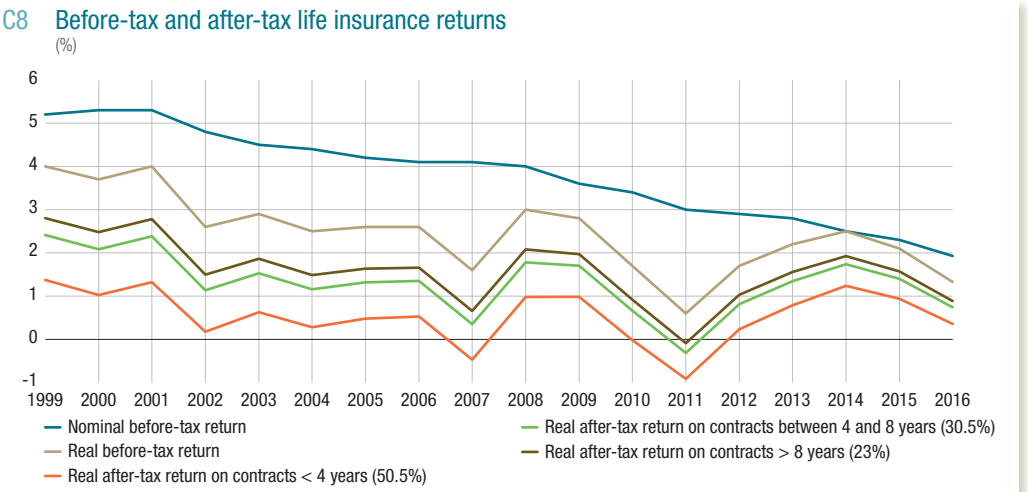
• Furthermore, to ensure that savers make efficient choices in relation to their personal characteristics, such as preferences, income and expectations, and to avoid the creation of rents, taxation should not create distortions in favour of certain instruments (Aubier et al., 2005; Monfront et al., 2005; see Chart 8 *infra*).

French tax treatment of savings income falls short on both these fronts, as it creates distortions in favour of liquid, low-risk instruments, which are then exacerbated by its complex and unstable nature and by the effects of France's wealth tax (ISF) (Monfront et al., 2005). Aubier et al. (2005) use a model of savings behaviour to show that by lowering the share of equities in the portfolios of French households, these distortions reduce portfolio returns by 30% and push up the cost of equity of French companies by 40 basis points. Furthermore, while still relatively moderate before the crisis, taxation of savings income in France increased sharply thereafter: in 2014, capital taxation in respect of household income (excluding sole proprietors) was equivalent to 1.5% of GDP in France, compared with 0.8% in 2009, putting France fourth in the European Union behind Denmark (2.9%), Greece (1.8%) and Portugal (1.5%) (European Commission, 2016).

One way to reduce distortions would be to apply a flat tax to savings income, which would make it possible to maintain a theoretically identical level of tax receipts, i.e. without taking account of potentially positive effects on savings and economic growth. Monfront et al. (2005) suggest a rate of 12%. Garnier and Thesmar (2009) update those calculations and, while also suggesting introducing two exemptions (lump-sum allowance for small amounts and deductions/exemptions for long-term

8 Consider the example of savings invested at a rate of 2% with income taxed at 30%. If inflation is zero, the real return is 1.4%; if inflation is 2%, the real return falls to -0.6%. If the tax rate is 40%, the respective real returns are 1.2% and -0.8%. The distortion increases with both the inflation rate and the tax rate. Chart 8 illustrates the distortion linked to taxation, showing how it may lead to negative returns, even in the case of non-unit linked life insurance, despite the fact that investors in such products benefit from favourable pooling effects during a protracted decline in interest rates.

C8 Before-tax and after-tax life insurance returns



Sources: French Prudential Supervision and Resolution Authority (ACPR), French Insurance Federation (FFA).

savings schemes such as PERCOs, PERPs or life insurance contracts), recommend a rate of closer to 20%. Increased taxation of savings income would result in a flat rate of just under 20% (or 30% with the exemptions recommended by Garnier and Thesmar, 2009).

Conclusion

French people do not appear to exhibit exceptional savings behaviour. Not only is their behaviour not markedly different from what is found elsewhere, especially in Europe, but for the most part it seems to be rational with regard to the incentives supplied. This supports the findings of Christelis et al. (2013), who show that the economic environment plays a bigger role than household characteristics and draw a distinction between countries that have developed equity markets and those that do not. To create an environment that is more conducive to share ownership, the public authorities have tools at their disposal that may be effective in the short run (deregulation of deposit rates, privatisations) or further out (economic policies supportive of business growth and competition between savings managers, development of pension funds, tax neutrality). Improving financial literacy and promoting transparent and unbiased financial advice would also encourage ownership of risky assets by households. Even if these actions are likely to have only a limited impact, they deserve to be followed up, as they would enhance collective well-being by lessening social exclusion and promoting more effective portfolio allocations.

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Insurance undertakings in France: investment developments in 2016

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With a total of EUR 2,543 billion in investments held by insurance firms that are subject to the Solvency II regime (see the glossary in the appendix) at the end of 2016, France has the euro area's leading insurance market.

Insurers are faced with two major challenges that influence their investment behaviour. First, the historically low interest rates are gradually diluting the financial return on their investments due to the reinvestment of liquidities in extremely low-yield bonds. This environment can encourage life and composite insurance undertakings to seek additional returns from alternative sources in order to guarantee satisfactory revaluation rates for their clients. Second, determining Solvency II capital requirements involves calculating economic losses based mainly on the market risk associated with the investments held. This encourages more active investment management. As this study points out, insurers are gradually adjusting the structure of their portfolios, as their investments are essentially made up of held-to-maturity redeemable securities. 2016 witnessed a lengthening of residual maturities of fixed-rate debt securities and increased efforts to diversify assets.

Keywords: insurance, investments, low interest rates, Solvency II, look-through approach

JEL code: G22

Key figures in 2016

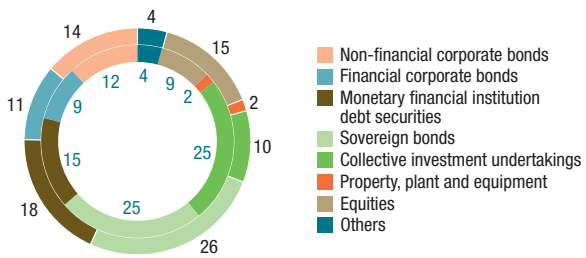
EUR 2,543 billion
outstanding investments of insurance undertakings subject to Solvency II, including **EUR 1,553 billion of debt securities** and **EUR 221 billion of equity securities** before applying the look-through approach to CIUs

EUR 11 billion
negative net flows in respect of debt securities relatively close to maturity (residual maturity of one to five years)

EUR 126 billion
real estate investments, up 12%

Breakdown of insurers' asset portfolios by product at end-2016
(before and after applying the look-through approach to resident CIUs)

(%)



Sources: ACPR, Banque de France – annual Solvency II reporting.
Note: Percentages before applying the look-through approach are in blue.

1. A stable investment structure mainly steered towards interest rate products

With nearly 35% of the net assets of Europe's insurers, France has the euro area's leading insurance market in terms of asset holdings.[1] At the end of 2016, life and composite insurance firms accounted for 91% of all French insurers' investments (EUR 2,321 billion out of a total EUR 2,543 billion). According to the prudential reporting submitted to the *Autorité de contrôle prudentiel et de résolution* (ACPR),[2] these investments are mainly composed of bonds (approximately 60% of investments by value) and collective investment undertaking (CIU) units (25%) – see Chart 1a. They are invested in securities that for the most part have been issued by French residents (64%) and euro area issuers (23%) – see Chart 1b. 55% of all the securities combined go towards financial companies (including financial and monetary institutions and non-money market funds), 25% finance general government and 16% finance non-financial corporations – see Chart 1c.

The investment structure is extremely stable, as a comparison of prudential balance sheets for year-ends 2015 and 2016 confirms.

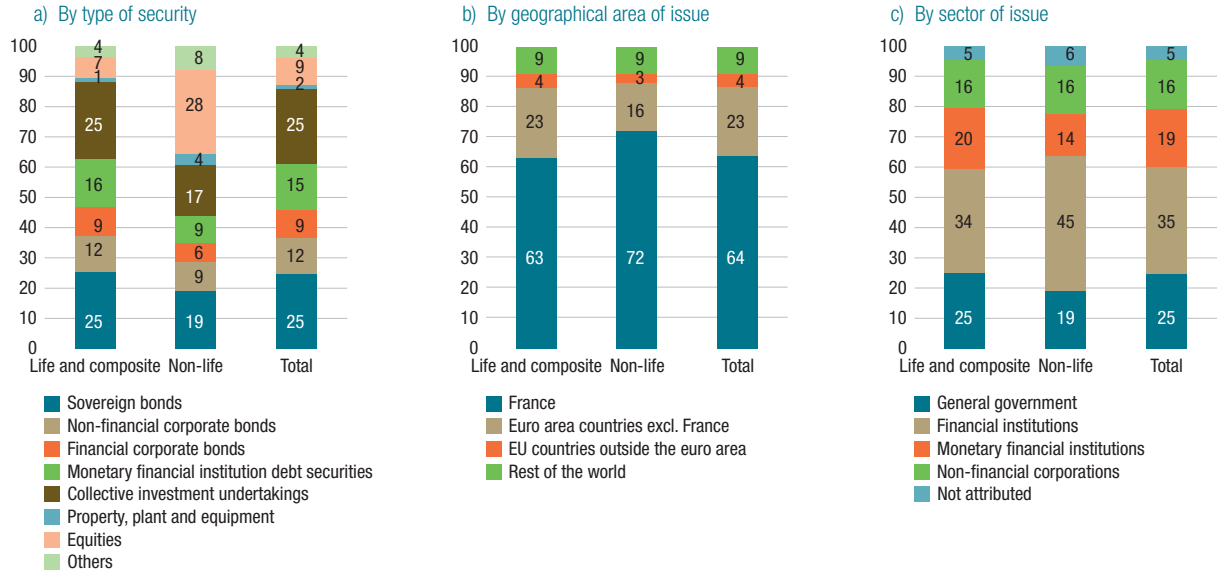
Distinct characteristics depending on the undertaking's activity, the type of commitments underwritten and securities held

Portfolio structures differ according to the licensing of the undertaking (see Charts 1a, 1b and 1c): non-life undertakings hold more equities and are more exposed to the financial sector and to securities issued by French residents. By contrast, life and composite undertakings entrust a larger part of the management of their investments to CIUs and a larger proportion of their holdings are debt securities. Clearly, holding low-risk and fixed-rate bonds is consistent with the guaranteed

1 Source: ECB (*http://sdw.ecb.europa.eu*).

2 Data taken from the annual reports, harmonised at European level, submitted to the ACPR by insurers subject to Solvency II (see the glossary in the appendix).

C1 Breakdown of insurance undertaking investments by insurance activity at end-2016
(share in %)



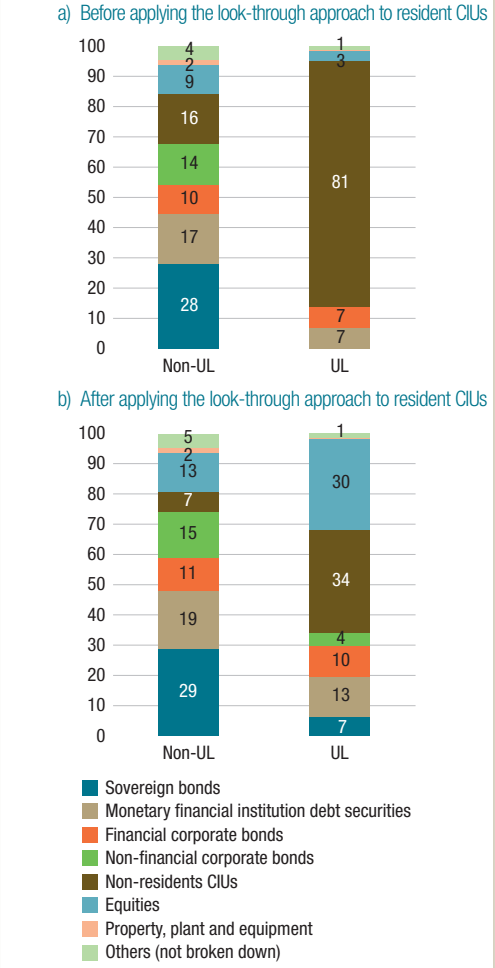
Sources: ACPR, Banque de France – annual Solvency II reporting.
Note: The breakdown of insurance undertakings according to life/composite and non-life is taken from the disclosures in their annual Solvency II reporting.

benefits (capital guarantees, minimum guarantees, etc.) offered by these types of undertakings.

Investments underlying unit-linked contracts,[3] in respect of which policyholders bear a risk of loss, are more generally placed in CIUs, and are consequently more exposed to equity risk (after applying the look-through approach)[4] – see Chart 2.

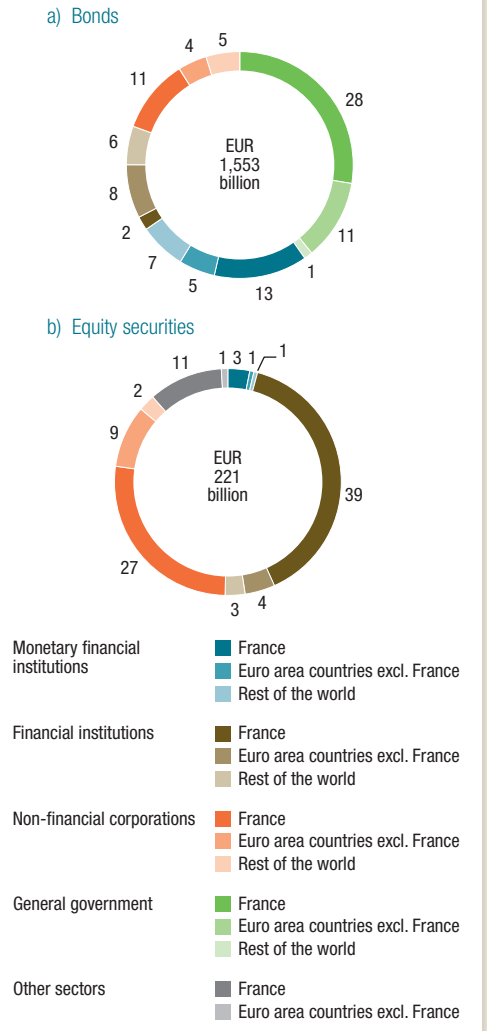
Furthermore, sectoral and geographical exposures vary significantly depending on the type of securities held – see Chart 3.

C2 Breakdown of insurers' investments by type of contract at end-2016
(%)



Sources: ACPR, Banque de France – annual Solvency II reporting for 2016; look-through approach applied based on Banque de France investment fund information.
Note: UL refers to "unit-linked".

C3 Geographical and sectoral breakdown of investments held by insurers at Q4 2016
(share in %)

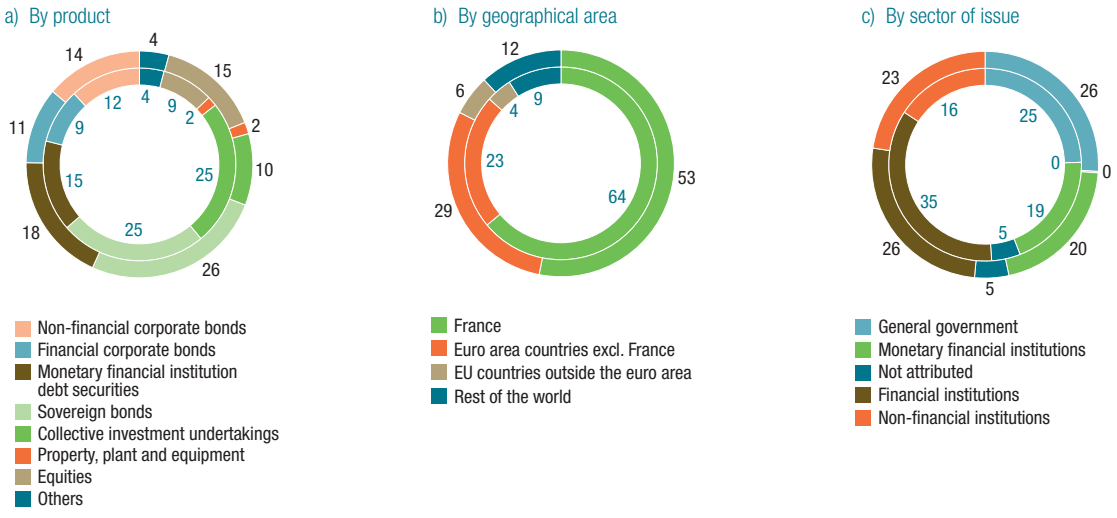


Sources: ACPR, Banque de France – annual Solvency II reporting for 2016.

3 See the glossary in the appendix.

4 See *Analyses et synthèses*, No. 81, "*La situation des assureurs soumis à Solvabilité II en France au quatrième trimestre 2016*", on the position of insurers subject to Solvency II in France at Q4 2016. The look-through approach involves replacing the resident CIU units with the corresponding share of the underlying securities in which CIUs invest.

C4 Breakdown of insurers' asset portfolios at end-2016
(before and after applying the look-through approach to resident CIUs)
(share in %)



Sources: ACPR, Banque de France – annual Solvency II reporting.
Notes: Percentages before applying the look-through approach to resident CIUs are in blue. The look-through approach was applied only to resident CIUs due to insufficient data on non-resident CIUs. Therefore, certain shares of CIUs remain unadjusted.

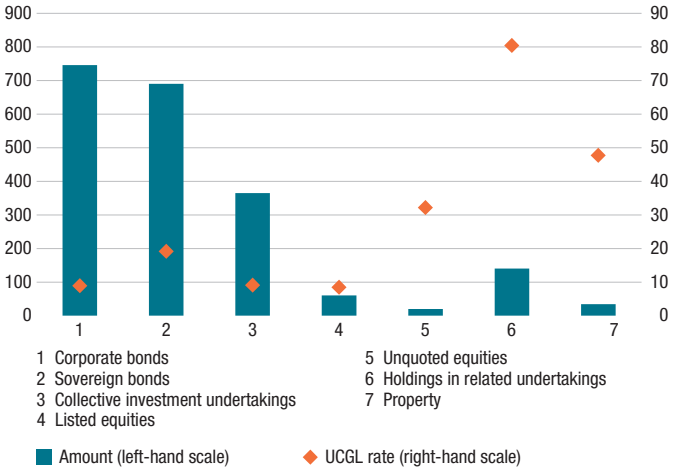
Investments via CIUs are more diversified than through direct holdings

The characteristics of investments held indirectly via CIUs are significantly different from those held directly by the insurance firms – see Charts 4a, 4b and 4c. At the end of 2016, applying the look-through approach to resident CIUs increases insurers' total exposure to equity by six percentage points. Furthermore, applying the approach to securities issued by euro area residents outside France and to non-financial corporations increases their exposure by six percentage points and seven percentage points, respectively.

Unrealised capital gains continue to be very substantial

On the basis of information disclosed in the balance sheets of the annual Solvency II submissions, the rates of unrealised capital gains and losses (UCGL),[5] which represent the difference between the market value and the net book value of investments held, remain high at 15% for all investments excluding unit-linked contracts. Notably, the UCGL rates

C5 Rates of unrealised capital gains and losses (UCGL) and amounts for main forms of investment at end-2016
(before applying the look-through approach to resident CIUs)
(amounts in EUR billions, rate in %)



Sources: ACPR, Banque de France – annual Solvency II reporting.
Note: Only debt securities with an assigned external credit rating are included.

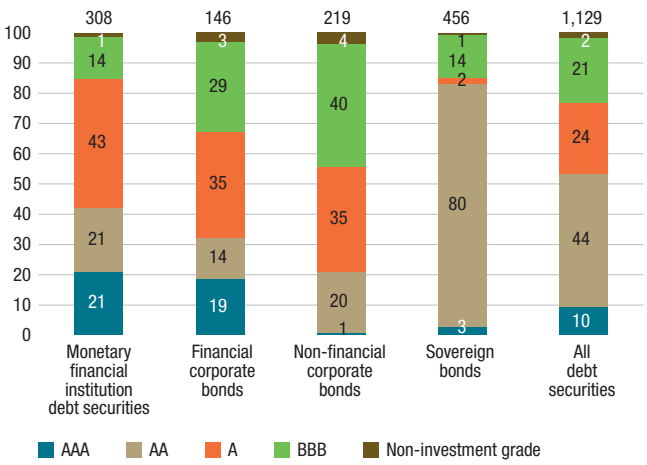
5 See the glossary in the appendix.

for debt securities amounted to 13% due to the effect of extremely low interest rates, and a similar level can also be seen for equities – see Chart 5.

Good credit ratings for the investments held

The quality of the securities held by insurance firms is also improving in terms of their credit rating – see Chart 6. Almost all the directly held debt securities of insurance firms (98%) were investment grade (BBB- rating and above, according to Standard & Poor's) and half of them carried the highest ratings available (AAA and AA, according to Standard & Poor's).[6]

C6 Credit ratings of debt securities at end-2016
(before applying the look-through approach to resident CIUs)
(in %, amounts in EUR billions)



Sources: ACPR, Banque de France – annual Solvency II reporting.
Note: Only debt securities with an assigned external credit rating are included.

2. Longer portfolio maturities and greater investment diversification

Lengthening of portfolios' average residual maturities

During the last three quarters of 2016, insurance undertakings reported negative net flows[7] of EUR 11 billion in respect of debt securities relatively close to maturity (residual maturity of one to five years).[8] As the majority of these bonds are quoted above par, sales of bonds prior to the redemption date can generate capital gains. Life and composite insurance firms post these realised capital gains to the capitalisation reserve[9] rather than to financial income, thereby enhancing the undertakings' solvency.

Insurers aim to achieve two objectives through their reinvestment strategies: first, preventing a deterioration in the level of risk in order to limit capital consumption; and second, curbing reductions in asset yields in the low interest rate environment. The average coupon yield declined again in 2016, falling by 0.2 percentage points from 3.6% at first-quarter closing to 3.4% at last-quarter closing. Thanks to the concentration of flows in respect of residual maturities of over 10 years (EUR 50 billion), insurance firms were able to maintain their average coupon yields at between 2.3% and 5.3%[10] in the last quarter of 2016, at the expense of greater portfolio sensitivity to interest rate increases. Government bonds accounted for 40% – or EUR 20 billion – of the EUR 50 billion, which is explained by the depth of the market for government debt securities[11] and the more lenient prudential capital requirements associated with holding them.

Increased diversification thanks to the development of unit-linked contracts

Outstanding equity securities are increasing

In 2016, outstanding investments in equity securities[12] rose by EUR 17 billion to EUR 221 billion in the last quarter, increasing their share in insurers' total assets from 8% to 9%. This increase mainly concerns equity flows towards financial institutions, particularly resident financial institutions (flows towards resident issuers increased to EUR 12 billion). Excluding valuation effects, this change is the

6 Bonds without an assigned external credit rating are not included in the sample.

7 Net flows: purchases less sales of securities (EUR 91 billion) excluding those that reach maturity (EUR 80 billion). The second part of the article covers flows for the last three quarters of 2016 (see appendix – Methodology, for calculation of flows).

8 Net flows for debt securities with a residual maturity of less than one year are mainly comprised of negotiable debt securities with an original maturity of less than one year.

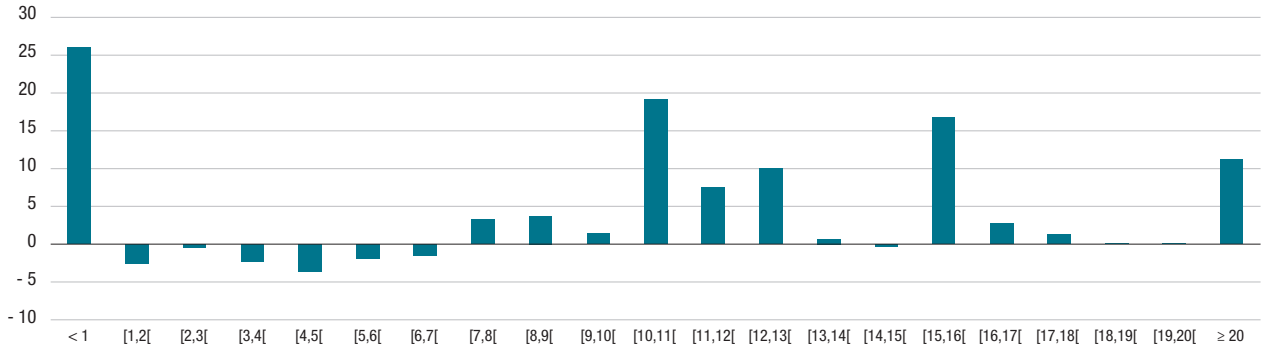
9 See the glossary in the appendix.

10 Weighted average coupon yield of outstandings by year of residual maturity.

11 Government bonds make up 38% of outstanding debt securities with residual maturities of over 10 years.

12 Equity securities: listed equities, unquoted equities and other interests.

C7 Total net flows in respect of debt securities from Q2 2016 to Q4 2016 by residual maturity
(x-axis: years; y-axis: EUR billions)



Sources: ACPR, Banque de France – annual Solvency II reporting.

result of a net positive flow of EUR 6.2 billion over the last three quarters of 2016, broken down between listed equities (EUR 2.7 billion), unquoted equities (EUR 1.7 billion) and other interests[13] (EUR 1.8 billion).

In addition, indirect shareholdings are also up, with the increase in total outstanding CIUs in 2016 reflecting, after applying the look-through approach, investments in listed equities (EUR 22 billion), non-resident CIUs (EUR 20 billion) and bonds (EUR 9 billion).

Assets held indirectly via CIUs and underlying unit-linked contracts are made up of non-resident CIUs (42%), equity (33%) and bonds (25%) – see Chart 8. The 2% growth in total insurers' assets between the first and last quarters of 2016 was almost entirely due to increases in assets underlying unit-linked contracts, and more particularly, equities held directly and through resident CIUs.

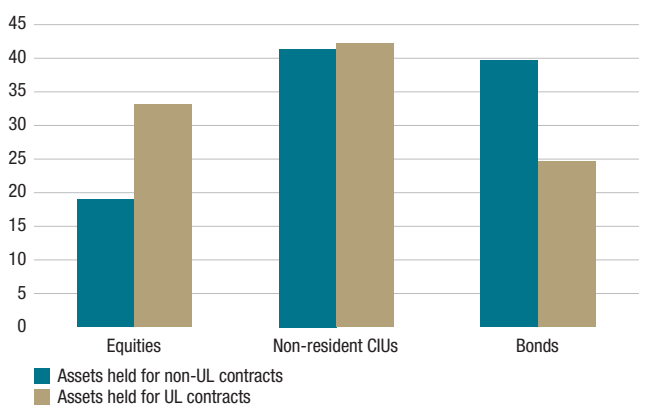
In addition to their investments in equity, insurance firms also use CIUs to broaden their international diversification. Consequently, 65% of insurers' assets excluding CIUs[14] are invested in resident-issued securities while 65% of the units held in resident CIUs are invested outside France.

Investments in resident CIUs also increase the proportion of investments made in non-financial corporations. In particular, 79% of listed equities – when held indirectly through CIUs – are invested in the non-financial corporate sector (compared with 38% when directly held).

13 Equity securities that are not traded on a regulated market.

14 Top 10 issuing countries, representing 90% of the portfolio.

C8 Structure of assets held through CIUs (after applying the look-through approach), by category of asset and fund type
(%)



Sources: ACPR, Banque de France – annual Solvency II reporting for 2016; look-through approach applied based on Banque de France investment fund information.

Box

Adapting to the very low interest rate macroeconomic environment – other aspects

In addition to adjusting their asset allocation, insurance undertakings have several other mechanisms available to withstand low interest rates in the short and medium term, such as:

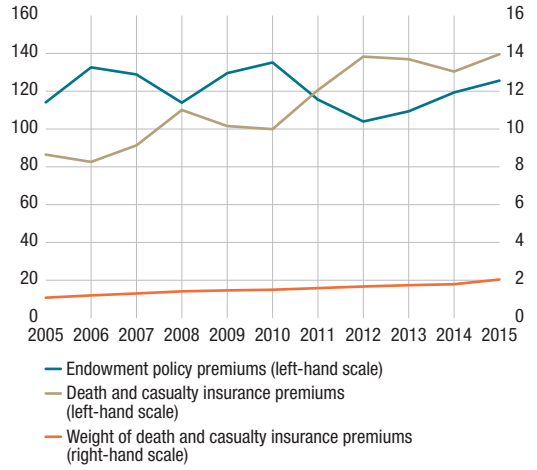
- reducing the revaluation rates of savings contracts (from 4.10% in 2007 to 1.93% in 2016 for euro-denominated individual contracts)[1] and the guaranteed rates on new contracts;[2]

- shifting premium income towards unit-linked contracts (EUR 37 billion in additional net inflows from January 2015 to May 2017), in respect of which the risk of loss of capital is borne by the policyholder. However, the success of unit-linked contracts contrasts with the poor progress of euro-croissance contracts[3] (total additional net premium inflow of EUR 1.3 billion between January 2015 and May 2017).

The adverse effects of the low interest rate environment also encourage insurance firms to optimise, and even shift, their business activities in a variety of ways.

First, insurers devoted significant efforts between 2015 and 2016 to reducing the costs incurred in managing their investments: on average, from 0.21% to 0.18% for assets held by life and composite undertakings and from 0.24% to 0.22% for assets held by non-life undertakings. The reduction in management costs for the different types of collective investment undertakings (CIUs), which has a direct impact on the management fees paid by insurers for their investments, has probably been a contributing factor.

Proportion of premiums from insurance in the event of death and casualty insurance in total life and composite premiums
(amounts in EUR billions, share in %)



Source: ACPR.

Second, there has been a noticeable shift in the activities of life and composite insurance firms towards health and personal protection (death and casualty insurance), whose premiums tended to increase over the last ten years (from 8% to 14% of all life and composite insurance premiums between 2005 and 2015), at the expense of endowment policies, whose premiums were more volatile and generally drifted downwards over the same period.[1]

Lastly, the development of InsurTechs – insurance undertakings or insurance activity service providers (brokers, managers) that leverage new technologies – could also have a medium-term impact on the sector's economic model, although its extent and consequences are still difficult to assess. In France, the ACPR licensed an InsurTech in October 2016.

1 See *Analyses et synthèses*, No. 78, "*Assurance vie en France et environnement de taux bas*", on life insurance in France and the low interest rate environment for further details (*https ://acpr.banque-france.fr/sites/default/files/medias/documents/201705-as78-taux-bas-version-3_0.pdf*).
2 See *Analyses et synthèses*, No. 66, "*Le taux technique en assurance vie (Code des Assurances)*", on the technical rate in life insurance for further details (*https ://acpr.banque-france.fr/sites/default/files/medias/documents/201606_as66_le_taux_technique_en_assurance_vie.pdf*).
3 See the glossary in the appendix.

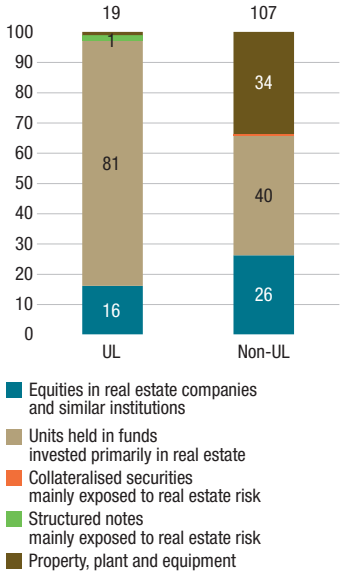
Investment in real estate is relatively buoyant

Between the first and last quarters of 2016, outstanding real estate investments, in their broadest sense,[15] rose by EUR 15 billion to EUR 126 billion, thereby representing a little under 5% of insurers' investments, in last-quarter 2016. This upturn was mainly due to holdings of units in real estate funds (EUR 15 billion) and real estate company securities (EUR 2.3 billion), at the expense of direct investments in tangible assets.

17% of outstanding real estate investments, before applying the look-through approach, are assets underlying unit-linked contracts. Uniquely, 81% of them are held indirectly, via real estate funds (see Chart 9), which is due to the need to hold investments that are more liquid and have a shorter holding period in order to meet unit-linked contract constraints.

C9 Real estate investments held by insurance undertakings at Q4 2016, by type of commitment covering liabilities

(in %, amounts in EUR billions)



Sources: ACPR, Banque de France – quarterly templates – Q4 2016 – Solvency II.

15 Real estate investments before applying the look-through approach are considered to be: equities in real estate companies and similar institutions, units held in real estate funds, property, plant and equipment within the meaning of Solvency II (property, land, immovable structures and equipment), structured notes and collateralised securities mainly exposed to real estate risks.

Appendix
Methodology

The different types of insurance undertakings in France

Life and composite insurance firms manage the bulk of traditional euro-denominated contracts, as well as all unit-linked contracts, which are insurance products used mainly as household savings vehicles.

Non-life insurance firms cover most types of property, liability, and casualty and personal risk insurance: they mainly take on short-term liabilities (one year on average) and, in general, settle outstanding claims within two years (with a few exceptions such as civil liability, guarantees and construction risk insurance). Insurance companies and mutual insurers are governed by the Insurance Code (*Code des assurances*), mutual societies referred to as "type 45" mutuals (*mutuelles 45*), are governed by Book II of the Mutual Insurance Code (*Code de la mutualité*), while provident institutions fall within the scope of the Social Security Code (*Code de la sécurité sociale*).

Mutual insurers, "type 45" mutuals and provident institutions are not-for-profit entities. "Type 45" mutuals and provident institutions mainly provide personal insurance.

The governance of "type 45" mutuals, which primarily provide insurance against health risks, is exercised by the policyholders. These mutuals are currently undergoing a process of concentration and re-segmentation of the competitive environment.

Historically, provident institutions, which have a joint governance structure, specialise in group insurance for businesses or occupational sectors. As a result of their different types of commitments, as well as their regulatory constraints and distinct legal and historical characteristics, each type of insurer has a distinct asset portfolio structure.

Data used in the study

	2014 data		2016 Solvency II data	
	Sample size	Realisable value at end-2014	Sample size	Realisable value at end-2016
Total	632	2,299	466	2,543

The sample for the 2016 study covers 466 active entities (compared with 632 entities in the previous study), which were subject to Solvency II essentially on the basis of the size of their assets.[1] Their investment holdings had a realisable value of EUR 2,543 billion at 31 December 2016.

The analysis carried out in 2014 was based primarily on an examination of the detailed statements of investments (TCEP – *tableaux complémentaires aux états de placement*) that insurance undertakings file annually with the ACPR in accordance with Article A.344-3 of the Insurance Code. These tables report the gross and net book values and the realisable values for each line of security held as at 31 December, and are cross-referenced with the Banque de France's databases on securities and issuers and with the European Central Bank's databases for non-resident securities. Such cross-referencing is used to identify the types of securities, their initial maturity and the institutional sector of the issuer.

The analysis carried out in 2016 was based primarily on the examination of data submitted by the 466 entities in template S.06.02, "List of assets", as part of their solo prudential reporting. The total assets of the 466 reporting entities represented EUR 2,543 billion. In the absence of Solvency II data for year-end 2015, the analysis of

1 Insurance undertakings with annual gross written premium income of over EUR 5 million and total technical provisions of more than EUR 25 million must comply with Solvency II. However, irrespective of these thresholds, there are possibilities for exclusion from the scope or derogations (Article 4 of Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance, Solvency II).

flows presented in the study was carried out on the basis of quarterly submissions from 135 entities whose investments amounted to EUR 2,409 billion – 95% of the annual reporting total – at the end of the fourth quarter of 2016. The investment data used in the study are taken from the annual "List of assets" template (S.06.02), and, as was the case for the TCEP tables, are supplemented using external data (Banque de France databases on securities and issuers, European Central Bank databases on non-resident securities, Banque de France investment fund information, etc.).

Look-through approach for CIUs

Banque de France databases (mainly information on investment funds) are used to apply the look-through approach to collective investment undertaking (CIUs) securities held by insurers. Using this technique makes it possible to identify the final beneficiaries of investments, as the CIU securities in insurers' portfolios are replaced with the securities in which CIUs invest.

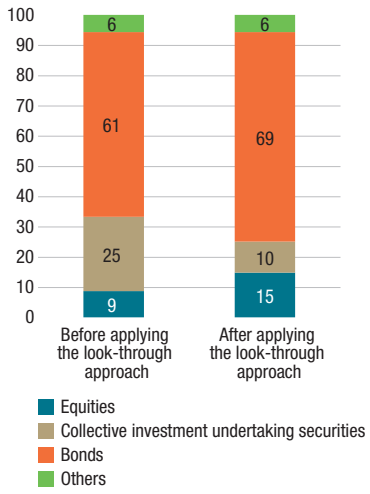
More than 58% of insurers' investments in CIU securities were thus identified as belonging to one of two categories of underlying financial instruments: bonds (approximately 33%) and equity (25%). The remaining 42% of securities invested by insurers in CIUs correspond to non-resident CIUs – see Chart.

Thus, equities (listed and unlisted) are estimated to account for 9% of insurers' investments before applying the look-through approach to CIUs, and 15% after its application. Equally, the share of bonds in insurers' investments increases from 61% to 69% after applying the look-through approach.

By contrast, the rates of unrealised capital gains and losses and the investment ratings are estimated solely before applying the look-through approach to resident CIUs, given that the necessary post look-through approach data is unavailable.

Effect of applying the look-through approach on the structure of insurers' assets

(%)



Sources: ACPR, Banque de France – annual Solvency II S.06.02 templates; look-through approach applied based on Banque de France investment fund information.

Flows

In accordance with Regulation (EU) No. 549/2013,[2] "Flows refer to actions and effects of events that take place within a given time period, while stocks [or outstandings] refer to positions at a point of time". Therefore: "Flows reflect the creation, transformation, exchange, transfer or extinction of economic value". For the purposes of this study, flows are calculated for the last three quarters of 2016 on the basis of data on outstandings and securities valuations for each quarter Q using the following formula:

$$\text{Flow}_Q = (\text{Outstandings}_Q - \text{Outstandings}_{Q-1}) - \text{Valuation}_Q - \text{Changes in volume}_Q$$

The valuation corresponds to the average of the valuations of a given security during quarter Q.

Changes in volume mainly include changes in classification or structure.

2 Regulation (EU) No. 549/2013 of the European Parliament and of the Council of 21 May 2013 on the European system of national and regional accounts in the European Union.

Flows net of redemptions correspond to the sum of flows for each security and each legal entity.

Glossary

Capital gains and losses

A capital gain corresponds to the profit that would be made upon the sale of an asset. It can be a potential gain (i.e. unrealised), or a realised gain if the asset has actually been sold. Conversely, in the event that the sale price of an asset is inferior to the value disclosed in the entity's balance sheet, there is a realised or potential capital loss. A capital gain or loss is thus calculated by deducting the net book value recorded in the entity's balance sheet from the market value.

Capitalisation reserve

A reserve composed of capital gains realised on sales of bonds and only reversed if capital losses are realised on assets of the same type. It is used to smooth net income or expenses from realised capital gains and losses on bonds sold prior to maturity, in the event of changes in interest rates. Thus, if interest rates fall, life insurance undertakings are not encouraged to sell their high-coupon bonds to make a one-off profit while purchasing other bonds that would subsequently offer poorer performances.

Euro-croissance contracts

Euro-croissance ("euro-growth") contracts were introduced in the wake of the April 2013 report on households' long-term savings prepared by two members of French parliament, Karine Berger and Dominique Lefebvre ("*Dynamiser l'épargne financière des ménages pour financer l'investissement et la compétitivité*"), which aimed at encouraging "asset allocation that combines risk with security and is better directed towards the [French] economy". They were launched in 2014 and are life insurance policies that guarantee a contractually agreed percentage return on the capital invested on condition that it is locked away for a minimum eight-year period. However, the low interest rate environment has slowed the progress of inflows for this type of product. Decree No. 2016-959 of 13 July 2016 (on asset transfers to investments giving rise to the creation of a provision for diversification) therefore amended the terms and conditions of the contracts in order to boost yields in cases where euro-denominated contracts were switched for *euro-croissance* contracts.

Investments excluding unit-linked contracts

All assets held by an insurer excluding those held to cover technical liabilities with regard to contracts whose commitments are unit-linked.

Investments underlying unit-linked contracts

All assets held by an insurer to cover technical liabilities with regard to contracts whose commitments are unit-linked and in respect of which policyholders bear a risk of loss of capital.

Listing above or below par

A bond is said to be listed at par if it is trading at its face value. It is quoted above or below par if its coupon yield is higher or lower than its yield-to-maturity (the internal rate of return associated with the purchase of a bond at its market price on a given date).

Solvency II

A reform introduced by the Solvency II Directive approved by the European Parliament on 22 April 2009 and that entered into force on 1 January 2016. The Solvency II regime places risk management at the core of the prudential system for insurance undertakings. On the basis of size-related criteria set out in Article 4 of the Solvency II Directive, it applies to three-quarters of insurers, which together account for more than 99% of the assets on the French insurance market.[3] Its stand out features are the three-pillar prudential requirements intended to better reflect and disclose the risks borne by insurance undertakings. Pillar 1 defines the measurement, at market value, of technical provisions and two levels of capital requirement – Minimum Capital Requirement (MCR), and Solvency Capital Requirement (SCR), which are calculated based on the insurer's risk profile. Pillar 2 provides the rules to be complied with in respect of governance, including those related to investments (in accordance with the prudent person principle). Pillar 3 sets out the prudential reporting and disclosure requirements. Solvency II also introduces tighter supervision of insurance groups.

3 See "The French banking and insurance market in figures 2016" published by the ACPR, for further details (*https://acpr.banque-france.fr/en/2016-acpr-statistical-report).*

French net direct investment flows were back in surplus in 2016

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The improvement in the global economic environment continues to support direct investment transactions in France.

In 2016, French net direct investment transactions reported a surplus of EUR 26 billion, after the slightly negative balance reported in 2015. The value of investments abroad made by French residents was more than double the value of non-resident investments in France.

French direct investments abroad amounted to EUR 52 billion in 2016, more than three times the EUR 15 billion low recorded in 2013. France resumed its investments in non-resident manufacturing. Investments continued to be concentrated in the euro area and the United States, but gained ground in the new economic growth areas represented by emerging markets. For the first time since 2008, French residents disinvested in the United Kingdom.

French companies continued to attract non-resident investors (around EUR 26 billion in direct inward investments), who diversified their transactions by participating in fund-raising for new technology firms. Finland and Luxembourg were the two main investor countries in France, while China and Hong Kong, and the countries of the Near and Middle East took on an increasingly influential role. By contrast, for the second year running, the United States disinvested in France.

Keywords: direct investments, international investment position, new economy, investor country, destination country, ultimate investor

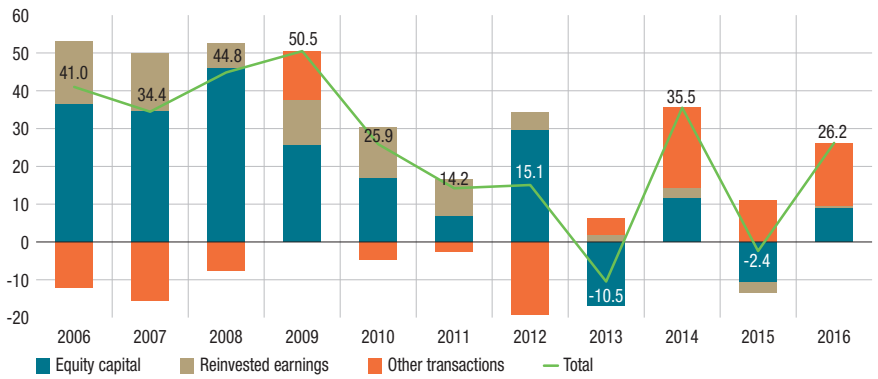
JEL codes: F21, F23, G34, L22

Key figures

EUR 25.6 billion
foreign direct investments in France in 2016

EUR 51.8 billion
French direct investments abroad in 2016

French net direct investment transactions with the rest of the world, by transaction type



Source: Banque de France – September 2017.

1. In 2016, the value of French investments abroad was more than double the value of foreign investments in France

French-resident companies lent to their affiliates abroad

In 2016, net direct investment transactions – the difference between French investments abroad and foreign investments in France – amounted to EUR 26 billion. French residents invested EUR 52 billion abroad, which is twice the amount (EUR 26 billion) invested by non-residents in France (see Sections 2 and 3 below).

Inter-company loans and trade credit, i.e. vis-à-vis non-resident affiliates,[1] account for almost two-thirds of the difference (EUR 17 billion). These loans help notably to finance the external growth operations of local subsidiaries established abroad.

The remainder results primarily from a net surplus of EUR 9 billion on capital transactions (see Table 1).

Prior to 2016, three distinct periods can be observed in the evolution of net direct investment flows:

• between 2003 and 2009 – relatively steady annual growth from EUR 10 billion to EUR 50 billion (see Chart 1);

• between 2009 and 2013 – a period of decline, to a year of negative net flows in 2013 linked to a weakened global economic environment that led to several projects being postponed;

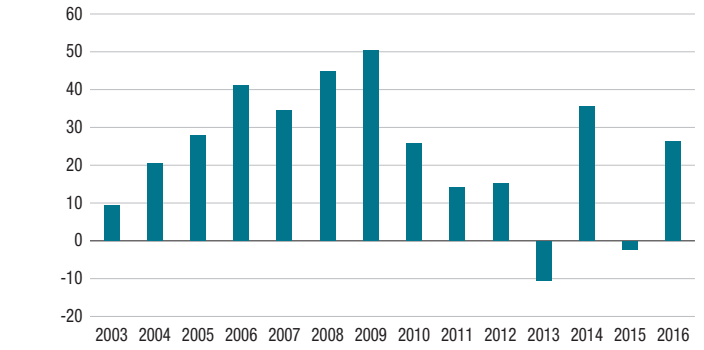
• from 2013 onwards – following a sharp rebound in 2014, net flows were again negative in 2015, particularly with the acquisitions of the French companies Lafarge and Alstom Power by non-residents (see Section 2).

T1 French net direct investment flows
(EUR billions)

	2014	2015	2016
Net	35.5	-2.4	26.2
Equity capital (including real estate)	11.6	-10.7	8.8
Reinvested earnings	2.5	-2.8	0.7
Loans and trade credit between affiliates	21.3	11.1	16.6

Source: Banque de France – September 2017.

C1 Net direct investment flows
(EUR billions)



Source: Banque de France – September 2017.

The majority of direct investment transactions over the previous 11 years involved equity capital

From 2006 to 2016, the cumulative net balance of direct investment transactions between France and the rest of the world amounted to EUR 275 billion. France's presence abroad was strengthened by these capital outflows (see Chart 2). These direct investment flows contributed to the improvement in France's net foreign direct investment position.[2]

In contrast to the finding for 2016 alone, capital transactions (including reinvested earnings) account for almost all of the net cumulative balance over the 2006-16 period: total net investments in equity capital amounted to EUR 270 billion.

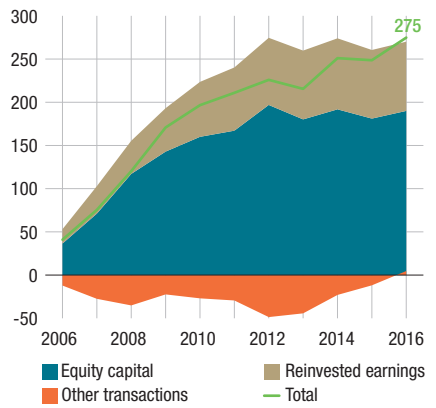
1 See methodological note in Appendix 2: fellow enterprises, parent companies and subsidiaries are defined on the basis of the 10% voting power threshold.

2 See the article "French direct investment stocks" in the present publication.

Loans and trade credits between affiliated enterprises were neutral during the period (see Table a in Appendix 1). With the exception of 2009, until 2012 these transactions generated net capital inflows but subsequently became positive in 2013, corresponding to capital outflows (see Chart a in Appendix 1).

Before interest rates dropped to extremely low levels, several resident groups set up cash pooling centres abroad in order to optimise the management of their cash balances. Therefore, net cumulative transactions related to loans between affiliates at end-2012 were negative at almost EUR 50 billion. In the particularly low interest rate environment since 2012-13, these transactions have become less attractive, and some groups have even repatriated their cash pooling centres back to France.

C2 French net cumulative direct investments from 2006 to 2016
(EUR billions)



Source: Banque de France – September 2017.

2. Foreign investors in France: the rise of emerging markets and the appeal of new technologies

France continued to attract foreign investors

In 2016, foreign direct investment transactions in France amounted to EUR 26 billion, which is similar to the average for the previous ten years. The figure is clearly down on prior year, which recorded more than EUR 40 billion in direct inward investments, but 2015 was exceptional due to two major deals: the takeover of Lafarge by the Swiss company Holcim and the acquisition of Alstom Power by the US group General Electric (see Table a in Appendix 1).

From 2006 to 2016, cumulative foreign direct investments in France reached EUR 256 billion, corresponding to a little more than 1% of GDP for the period. This amount corresponds to the "capital transactions" component (equity capital including real estate and reinvested earnings). Loans and trade credit between affiliates generally result in transactions with no long-term impact. From 2006 to 2016, cumulative non-resident direct investments accounted for 13% of France's liabilities vis-à-vis the rest of the world.[3] The figure for 2016 was 9%.

Non-residents invested in manufacturing and new technology firms

In 2016, EUR 11 billion of non-resident investments were channelled towards the manufacturing sector, which represents a return to 2007-08 levels. Since 2009, direct inward investments in the sector had been muted and even negative (see Chart 3).

Non-residents also participated in significant fund raising operations for "young shoots" (see Box below); approximately half of these investments were in sectors other than manufacturing and real estate and financial activities.

3 Other components of liabilities include portfolio investments, financial derivative contracts, and loans and trade credit that are not direct investments.

Box

Non-resident investor involvement in 14 French "young shoots"

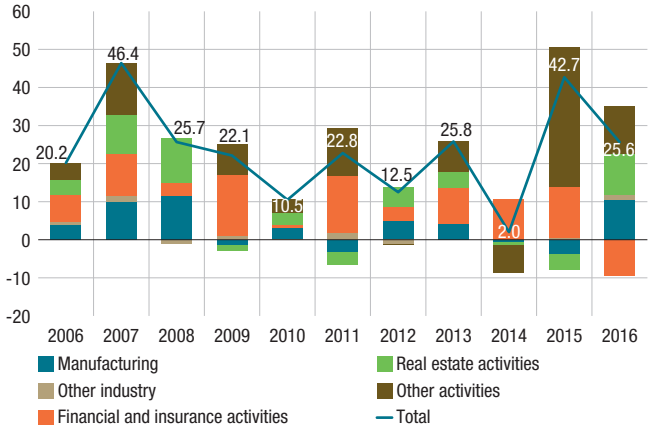
Non-residents participated in the principal fund raising operations for "young shoots" – young and rapidly growing innovative start-ups with operations in the new technologies sector: sound, image and network engineering, internet technologies and services, the sharing economy, cutting-edge medical technologies and biotech.

In 2016, non-residents invested more than EUR 1 billion in total in 14 French "young shoots", primarily through the following deals:

- the US investment funds KKR and Towerbrook acquired stakes in OVH, a web hosting service provider;
- the US fund Access Industries took exclusive control of the music streaming site Deezer;
- the Finnish group Nokia acquired Withings (connected objects);
- the UK company Trainline (online sale of train tickets) took over its French counterpart Capitaine Train;
- a subsidiary of the US group Comcast acquired StickyADS.tv (internet video advertising).

The trend continued in 2017 with the acquisition of Zenly by the US social media network Snapchat.

C3 Foreign direct investments in France by destination sector
(EUR billions)



Source: Banque de France – September 2017.
Note: Other industry covers mining and quarrying and electricity, gas and water supply. Other activities mainly include trade, accommodation and head office activities.

However, in 2016 non-residents started to disinvest in financial activities, with net negative flows of EUR 9 billion. This sector includes the activities of holding companies, some of which were subject to substantial divestment in 2016 as part of group restructuring programmes or capital reductions.[4]

Finland and Luxembourg were the two main investor countries in France

In 2016, foreign investments came mainly from the euro area. The contraction of the share of investments originating from non-euro area European Union countries was related to exceptional circumstances in 2015 with the takeover of Lafarge by the Swiss company Holcim, mentioned above (see Chart 4). For the second year running, the United States disinvested in France (a net EUR 7 billion in both 2015 and 2016).

Foreign investments in France in 2016 came mainly from Finland and Luxembourg (see Table b in Appendix 1).

The EUR 12 billion inflow from Finland primarily results from Nokia's merger acquisition of Alcatel-Lucent.

4 When the information is available, transactions are reclassified in the economic sector of the group to which the holding company or head office belongs.

Inflows from Luxembourg of EUR 11 billion are illustrative of an acquisition financing mechanism, as Luxembourg acts as a host for special purpose entities (SPEs) and other holding companies intended to manage the acquisition of entities in other countries. For example, the acquisition of the apparel and accessories group SMCP (Sandro, Maje, Claudie Pierlot) by the Chinese textile group Shandong Ruyi was made via Luxembourg.

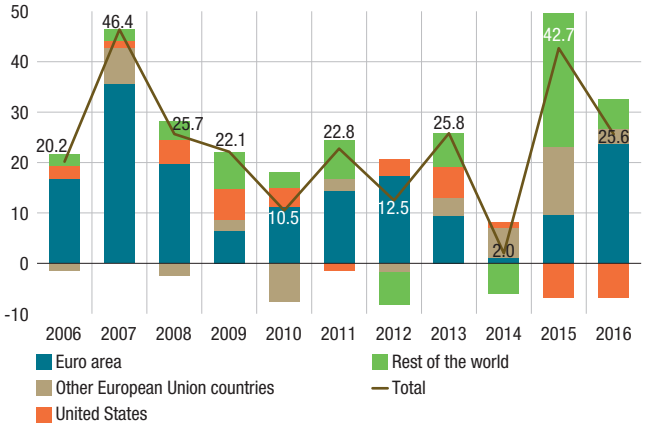
China and Hong Kong and the countries of the Near and Middle East stepped up their investments in France

An analysis of transactions by ultimate investing country provides an insight into international financial relations and highlights the increasingly influential role of China and Hong Kong on the one hand, and the countries of the Near and Middle East on the other.

In 2016 alone, net direct inward investment flows originating from these two regions exceeded EUR 4 billion in total[5] and their capital stock holdings in France were estimated at more than EUR 22 billion at end-2016.

Several groups established in Hong Kong or China have taken over or acquired stakes in French companies: for example, the Chinese group Shandong Ruyi, as mentioned above, took over the apparel and accessories group SMCP, and the Hong Kong group JinJiang acquired shares in AccorHotels. Furthermore, AccorHotels issued shares to the Qatar Investment Authority sovereign wealth fund via a reserved capital increase.

C4 Foreign direct investments in France by source region
(EUR billions)



Source: Banque de France – September 2017.

3. French investments in non-resident manufacturing underpinned capital outflows

French direct investments abroad hit a seven-year high

In 2016, outward direct investment transactions towards the rest of the world amounted to EUR 52 billion, in line with the upward trend followed since the EUR 15 billion low recorded in 2013. The last time these transactions exceeded the 2016 figure was in 2009 (see Table c in Appendix 1).

5 China and Hong Kong sit third in the classification of France's investor countries behind Finland and Germany, with Qatar in fifth.

From 2006 to 2016, cumulative French direct investments abroad reached EUR 531 billion (2.4% of GDP for the period), outpacing total foreign direct investments in France by EUR 275 billion. And as with direct investments in France, loans and trade credit between affiliates generally result in transactions with no long-term impact. The cumulative amount is almost exclusively related to capital transactions.

From 2006 to 2016, cumulative French direct investment transactions abroad represented 32% of France's claims on the rest of the world. The figure for 2016 was 20%.

France started investing in foreign manufacturing again

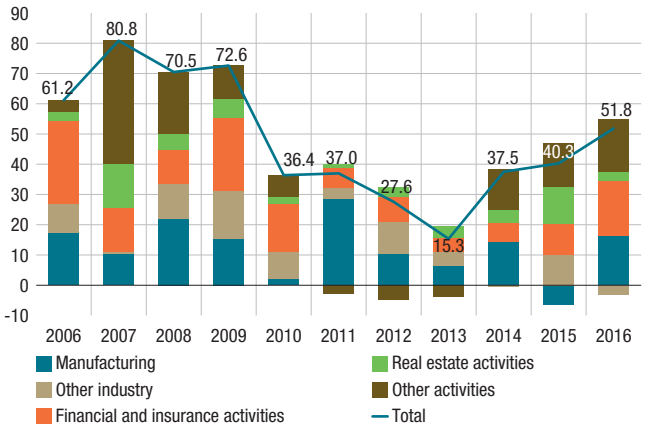
With a net outflow of EUR 16 billion, the manufacturing sector recovered its status as an important sector for French investments abroad in 2016 (see Chart 5).[6]

The chemical and food and agriculture sectors were the leading recipients of French investments, followed by electronics and textiles. Only the pharmaceutical sector recorded a divestment.

French companies disinvested in the United Kingdom in 2016

French groups actively seek out new economic growth opportunities among France's main partners.

C5 French direct investments abroad by destination sector
(EUR billions)



Source: Banque de France – September 2017.
Note: Other industry covers mining and quarrying and electricity, gas and water supply. Other activities mainly include trade, accommodation and head office activities.

In 2016, two-thirds of French direct investments abroad stayed within the euro area, with the majority of the remaining third destined for the United States (see Chart b in Appendix 1). Total outward investment in the United States, Germany, Belgium and Italy came to EUR 54 billion (see Table d in Appendix 1).

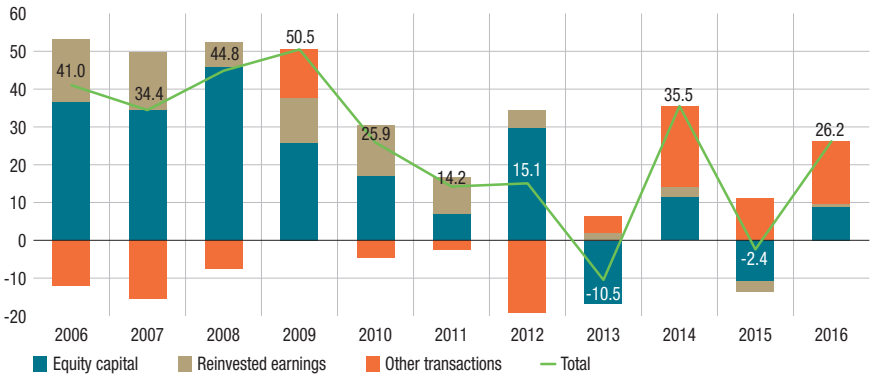
For the first time since 2008, net investment flows from France to the United Kingdom were negative (EUR 4 billion).

6 The withdrawal of French investors from the non-resident manufacturing sector in 2015 mainly corresponds to the transfer abroad of companies held by Lafarge as part of the Holcim merger acquisition.

Appendix 1
Direct investment flows: additional statistics

French net direct investments with the rest of the world

Ca French net direct investment transactions with the rest of the world, by transaction type
(EUR billions)



Source: Banque de France – September 2017.

Foreign direct investments in France

Ta Net foreign direct investments in France by transaction type
Extended directional principle
(EUR billions)

Year	Foreign direct investments in France	Capital transactions		Other transactions[a] (inter-company loans)
		Equity capital, including real estate investments	Reinvested earnings	
2006	20.2	21.8	9.5	-11.1
2007	46.4	22.0	10.8	13.5
2008	25.7	15.0	1.8	8.8
2009	22.1	14.5	-2.3	10.0
2010	10.5	11.5	6.3	-7.4
2011	22.8	21.2	-1.6	3.1
2012	12.5	10.7	6.2	-4.5
2013	25.8	20.0	6.6	-0.8
2014	2.0	9.4	5.1	-12.4
2015	42.4	28.7	6.8	6.9
2016	25.6	27.5	5.8	-7.6
Total	255.9	202.3	55.0	-1.4

Source: Banque de France – September 2017.
a) After reclassification of inter-company loans in accordance with the extended directional principle.
Note: Increases in liabilities are shown as positive figures, while reductions are shown as negative figures.
Thus, a foreign investment in France is reported as a positive value as it leads to an increase in France's liabilities.
Discrepancies between totals and their components may arise due to rounding.

Tb Main investor countries in France
(EUR billions)

		2013	2014	2015	2016
European Union (EU)		13.0	7.1	23.1	26.7
Euro area		9.4	1.1	9.6	23.8
of which:	Finland	-0.4	0.3	-0.2	12.4
	Luxembourg	11.8	5.4	1.8	11.5
	Netherlands	4.6	-2.1	-5.2	0.7
	Italy	2.1	0.0	1.5	1.2
	Germany	-1.3	-1.8	5.0	0.1
	Belgium	-8	-0.4	4.5	-0.7
Other EU countries		3.6	5.9	13.5	2.9
of which:	United Kingdom	2.2	7.3	12.8	3.2
Rest of the world		12.8	-5.1	19.3	-1.1
of which:	United States	6.2	1.0	-6.9	-6.9
	Switzerland	0.6	-4.5	20.6	0.2
Total		25.8	2.0	42.4	25.6

Source: Banque de France – September 2017.

French direct investments abroad

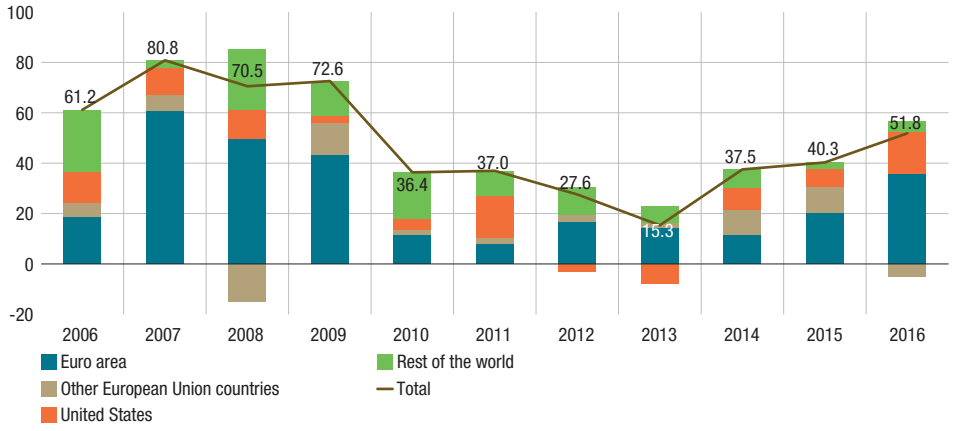
Tc Net French direct investments abroad by transaction type
Extended directional principle
(EUR billions)

Year	French direct investments abroad	Capital transactions		Other transactions[a] (inter-company loans)
		Equity capital, including real estate investments	Reinvested earnings	
2006	61.2	58.3	26.1	-23.2
2007	80.8	56.6	26.0	-1.8
2008	70.5	61.0	8.4	1.2
2009	72.6	40.3	9.6	22.7
2010	36.4	28.6	19.7	-11.9
2011	37.0	28.4	8.0	0.7
2012	27.6	40.5	10.8	-23.7
2013	15.3	3.3	8.5	3.5
2014	37.5	21.0	7.6	8.9
2015	40.0	18.0	4.0	18.0
2016	51.8	36.3	6.5	9.0
Total	530.8	392.3	135.1	3.3

Source: Banque de France – September 2017.
a) After reclassification of inter-company loans in accordance with the extended directional principle.
Note: Increases in assets are shown as positive figures, while reductions are shown as negative figures.
Thus, a French investment abroad is reported as a positive value as it leads to an increase in France's holdings.
Discrepancies between totals and their components may arise due to rounding.

Cb French direct investments abroad by destination region

(EUR billions)



Source: Banque de France – September 2017.

Td French direct investments abroad by destination country

(EUR billions)

		2013	2014	2015	2016
European Union (EU)		16.6	21.7	30.7	31.0
Euro area		14.4	11.6	20.5	35.9
of which:	Germany	-1.1	-0.4	2.2	13.1
	Belgium	13.5	-3.0	-5.6	12.1
	Italy	0.3	2.1	5.9	11.5
	Netherlands	-3.3	13.6	4.5	2.9
	Luxembourg	1.5	-2.6	3.8	-4.3
Other EU countries		2.2	10.1	10.3	-4.9
of which:	United Kingdom	2.7	8.7	6.8	-3.6
Rest of the world		-1.3	15.8	9.3	20.8
of which:	United States	-7.7	8.5	6.9	16.7
	Switzerland	0.8	-3.9	-0.5	2.5
Total		15.3	37.5	40.0	51.8

Source: Banque de France – September 2017.

Appendix 2
Methodological note

Definition of direct investments

Direct investment is a category of cross-border investment made by a resident in one economy (the direct investor) with the objective of establishing a lasting interest in an enterprise (the direct investment enterprise) that is resident in an economy other than that of the direct investor. The motivation of the direct investor is a strategic long-term relationship with the direct investment enterprise to ensure a significant degree of influence by the direct investor in the management of the direct investment enterprise.

In accordance with the recommendations of the sixth edition of the IMF's Balance of Payments and International Investment Position Manual (BPM6), statistics on direct investments abroad primarily cover cases where an investor that is resident in the reporting economy directly holds equity that entitles it to 10% or more of the voting power in an enterprise that is resident in another economy. Once a direct investment relationship has been established, all cross-border financial relationships between the direct investor, the companies it controls, the direct investment enterprise and the companies it in turn controls (lending, borrowing, trade credit, equity investments, reinvested earnings) are also considered to be direct investments and are recorded as such. Direct investment flows therefore include equity capital (including real estate investments and reinvested earnings), in proportion to the size of the investors' equity stakes in those companies, plus all loans and deposits granted by resident investors to their non-resident affiliates.

Geographical breakdown

According to the BPM6, geographical allocation is based on the immediate counterparty country. Therefore, if a French enterprise invests in China via a subsidiary based in another country or territory (Hong Kong or Luxembourg, for example), only the immediate counterparty economy will be taken into account in the geographical statistics for direct investment flows, and not China, which is the final recipient of the investment.

Breakdown by sector

Investments are broken down according to the sector of activity attributed to each resident enterprise in the companies register compiled by Insee. Sectors are defined in accordance with the NACE Rev. 2.

Where possible, holding companies are reclassified according to the economic sector of the parent company, when the latter is listed. To produce a breakdown similar to that of the stock market indices, holding companies are reclassified using the Industry Classification Benchmark (ICB).

The ICB was jointly developed by Dow Jones and FTSE. The system classifies listed companies by economic sector, and is used by several stock exchanges, including Paris, New York and London, which together account for roughly two thirds of the world's stock market capitalisation.

French direct investment stocks
French holdings of foreign equity increased in 2015 and 2016

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Jean-Luc Cayssials
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Cross-Border Investment and Trade Unit

France's international investment position is a statement of French residents' claims and liabilities vis-à-vis non-residents. The direct investment component, which consists of holdings of equity, is structurally positive, and at end-2016 showed a net asset position of EUR 533 billion, up from EUR 520 billion at end-2015 and EUR 490 billion at end-2014.

As a result, net income from direct investments abroad made a positive contribution of EUR 40 billion to the current account balance in both 2015 and 2016.

In terms of counterparty countries, France's largest net asset position for direct investment is with the United States. Consequently, the bulk of the rise in France's direct investment position in 2015 stemmed from exchange rate effects linked to the appreciation of the dollar.

The stock of foreign direct investment in France amounted to EUR 630 billion at end-2015, up from EUR 580 billion a year earlier. Inward direct investment flows exceeded EUR 42 billion over the year.

The total stock of French direct investment abroad rose to EUR 1,150 billion at end-2015, from EUR 1,070 billion a year earlier, driven by new outward investment flows and by exchange rate effects.

Keywords: direct investment, international investment position, equity, subsidiaries, direct investment income

JEL codes: F21, F23, G34, L22

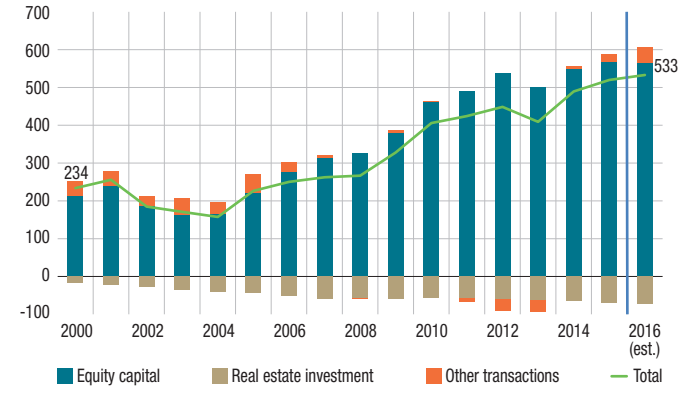
Key figures

EUR 533 billion at end-2016 (estimate)
France's net direct investment position

86%
share of French direct investment abroad held by large enterprises

Over EUR 40 billion
net income from direct investment in 2016

France's net direct investment position
(EUR billions; data as at 31 December)



Source: Banque de France – July 2017.
Note: Other transactions includes intercompany lending and, since 2011, trade credit between affiliates.

1. France's net direct investment position was boosted by the appreciation of the dollar in 2015

Direct investment helped to limit the size of France's net external deficit

France's international investment position (IIP) is a statement of French residents' claims and liabilities vis-à-vis non-residents. The main positive contribution to the balance comes from direct investment.[1]

At end-2016, France is estimated to have had a net asset position of EUR 533 billion for direct investment, up from EUR 520 billion at end-2015 and EUR 490 billion at end-2014.[2] The size of this position has risen steadily over the past ten years, with the exception of 2013 (see Chart 1), helping to limit France's overall net external liabilities to EUR 340 billion at end-2015.[3]

The positive contribution stems mainly from direct investments in corporate equity. Real estate investment, in contrast, recorded a net liability at the end of the year, while other transactions (loans and trade credit between affiliated companies) were nearly balanced.

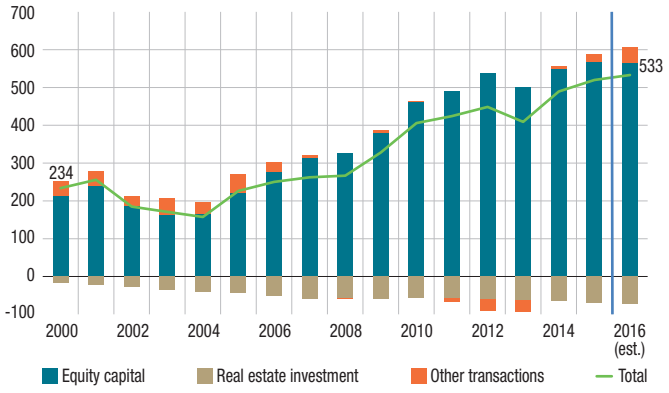
Exchange rate effects were the main driver behind the rise in France's net asset position for direct investment in 2015

Exchange rate effects measure changes in the euro value of direct investment stocks denominated in foreign currencies. In 2015, exchange rate effects added EUR 33 billion to France's net direct investment position. This was due to the appreciation of local currencies against the euro in the main host countries for France's outward direct investment (in particular the dollar) (see Table 1).

Changes in the market valuation of listed companies had only a marginal positive impact of EUR 0.1 billion, as valuation effects on outward investment stocks were offset by near-identical impacts on inward stocks.

The impact of other adjustments was also minimal, with the most notable effect stemming from the

C1 Net direct investment position
(EUR billions; data as at 31 December)



Source: Banque de France – July 2017.
Note: Other transactions includes intercompany lending and, since 2011, trade credit between affiliates.

T1 Change in net direct investment position, end-2014 to end-2015
(EUR billions)

	Position at end-2014[a]	2015 transactions	Exchange rate effect	Stock market or price effect	Other adjustments	Position at end-2015[a]
Net position	489.4	-2.4	33.0	0.1	-0.3	519.8
Equity capital	484.0	-13.5	30.4	0.1	-1.1	499.8
listed companies	*-28.1*	*-12.7*	*2.5*	*0.1*	*15.3*	*-22.9*
unlisted companies	*577.0*	*4.8*	*26.7*	*0.0*	*-16.3*	*592.1*
real estate investment	*-64.9*	*-5.5*	*1.2*	*0.0*	*0.0*	*-69.3*
Other transactions (intercompany loans)	5.4	11.1	2.6	0.0	0.8	20.0

Source: Banque de France – July 2017.
a) Revised data.

1 Expressed in mixed value: see Methodological Appendix No. 4 on the valuation of stocks.

2 Data series on direct investment stocks are available on the Banque de France website (*www.banquefrance.fr*) under Statistics/Balance of payments/Foreign direct investment/Foreign direct investment stocks: series. Given the time needed to compile data, stocks at end-2016 are estimates. See Methodological Appendix No. 4.

3 Portfolio investments, loans, deposits and borrowing, and financial derivatives show a net liability position.

absorption of the French company Lafarge by the Swiss cement-maker Holcim (booked under "unlisted companies" due to the delisting of Lafarge following the transaction; see below).

France has a net asset position for direct investment in most countries

A breakdown of direct investments by country shows that Europe and the United States are the main contributors to France's net asset position. French residents held a net total of EUR 150 billion of assets in the United States at end-2015 (28% of the total), up sharply versus end-2014 owing to the appreciation of the dollar. The next largest net asset positions were with European countries (Belgium, the United Kingdom, Italy, the Netherlands). In contrast, French residents had significant net liabilities with respect to Luxembourg, and to a lesser extent Switzerland (increase in liabilities after the absorption of Lafarge by Holcim) and Germany. With regard to the rest of the world, France's largest net asset position was vis-à-vis China and Hong Kong, amounting to a total of EUR 31 billion (see table in Appendix 1).

In terms of sectors, two-thirds of France's net holdings were in industrial companies, with manufacturing accounting for the bulk of this share (net assets of EUR 190 billion). After industrials, the main host sectors were financial activities, information and communication, and wholesale and retail trade. Only two sectors had a net liability position: holding and real estate activities (see Chart 2).

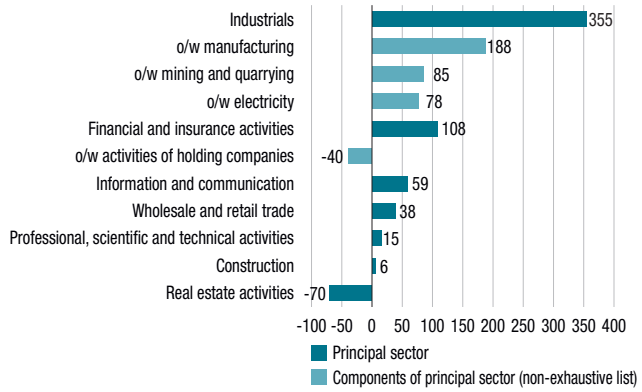
Direct investments generate net income of EUR 40 billion a year

France's net asset position for direct investment generates a net surplus of income. In 2015, this surplus amounted to over EUR 40 billion, and it has remained relatively stable at this level for the past three years, after rising sharply in 2010 and 2011. Since 2008, the majority of the surplus has been made up of dividends (see Chart 3).

The direct investment income surplus makes a positive contribution to the current account in the balance of payments. France's current account nonetheless remains in deficit, with a balance of EUR –10 billion at end-2015.

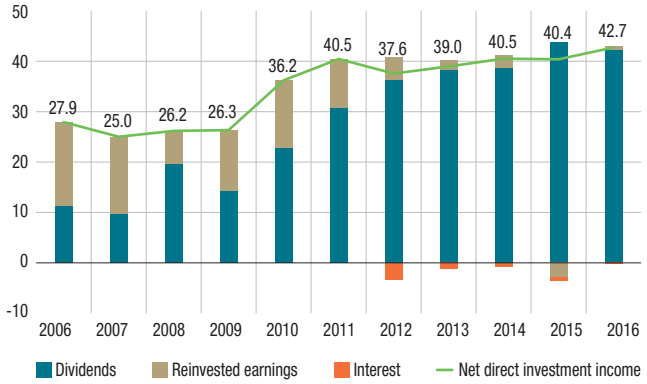
The direct investment income surplus stems from differences in apparent returns on outward and

C2 Net direct investment position at end-2015
(EUR billions)



Source: Banque de France – July 2017.

C3 Net income from French direct investment abroad
(EUR billions)



Source: Banque de France – July 2017.

inward investments: as a share of investment stocks, the apparent return on foreign equity investments in France, excluding real estate, was close to 5% in 2015, which is lower than the return of close to 7% earned on French investments abroad.

2. The United States is the largest direct investor in France

At the end of 2015, the stock of foreign direct investment in France stood at EUR 630 billion, up from EUR 580 billion a year earlier.

Inward flows of foreign direct investment rose sharply compared with previous years, reaching EUR 42 billion. This total reflected a number of significant transactions:

- takeover of Lafarge by the Swiss cement-maker Holcim;

- acquisition of Alstom's energy activities by the US group General Electric;

- acquisition of an additional capital stake in Numéricable-SFR by Altice, the Dutch holding company controlled by Patrick Drahi.

The rise in stock market prices in 2015 also had a positive EUR 9.6 billion impact on the market value of equity investments in French listed companies.

Luxembourg is the leading immediate investor in France

The breakdown of positions by immediate investing country[4] shows that 96% of the stock of foreign direct investment in France comes from industrialised economies (see table in Appendix 2).

Three-quarters stems from just six countries: Luxembourg (EUR 127 billion, or 20% of the total), the Netherlands (EUR 86 billion), the United Kingdom, Switzerland, the United States and Germany.

Euro area countries account for 59%, down slightly as a share of the total stock, despite an increase in the amount. The majority of the rise in stocks versus 2014 was attributable to Switzerland and the United Kingdom. Non-euro area European countries accounted for 13% of the total stock.

The United States is the largest foreign investor, according to the ultimate investor approach

Investors choosing France as the destination for their investment may channel the financing through other countries. For a number of years now, France has analysed its investment position using the "ultimate investor" approach,[5] which enables it to better identify its direct investment relationships with other countries, and in particular any new economic partnerships.

When inward direct investment statistics are compiled by country of residence of the ultimate investor, the United States, Switzerland and Germany all account for higher shares than under the immediate counterparty approach. Indeed, under the ultimate investor approach, they all rank among France's four largest investors. In contrast, "transit" countries such as Luxembourg, the Netherlands and, to a lesser extent, Belgium, all account for a smaller share of stocks (see Chart 4).

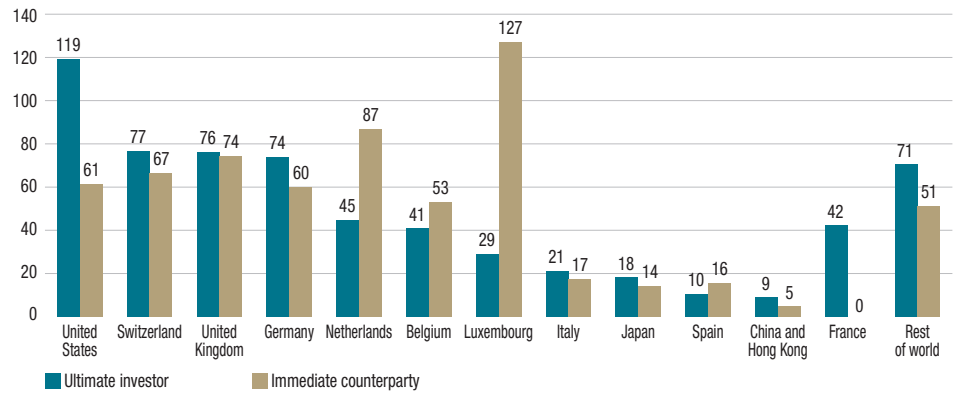
Under the ultimate investor method, a significant share of direct investment in France is ultimately held by French groups and investors (i.e. EUR 42 billion, or close to 7%).

This additional breakdown provides a better picture of the direct investment relationships established with new partner economies: China (including Hong Kong) ranks as the eleventh largest country of origin for direct investment in France, with EUR 9 billion of the total stock,

4 See Methodological Appendix No. 4.

5 Only five euro area countries publish data using this approach (source: OECD).

C4 Main stocks of foreign direct investment in France at end-2015
(EUR billions)



Source: Banque de France – July 2017.

behind Spain and ahead of Sweden. Moreover, according to available statistics on flows for 2016, the stock of Chinese (including Hong Kong) investment in France now totals close to EUR 11 billion, and has been rising steadily for a number of years, from less than EUR 1 billion a decade ago.

Foreign investors have a preference for financial and insurance activities

Financial and insurance activities receive 28% of the total amount of foreign direct investment in France, of which 11% is invested in holding companies. Financial and insurance activities, manufacturing and real estate together account for three quarters of the total stock of foreign direct investment. In the industrial sector, the leading recipients of foreign capital are the pharmaceuticals, food and agriculture, and chemicals industries (see Table c in Appendix 2).

Financial and insurance activities, real estate and construction have all recorded the biggest increase in investment since 2014. The overall stock of investment in the industrial sector has remained stable, but has declined as a share of total investment.

Mid-tier enterprises receive 42% of equity capital investments excluding real estate

French resident companies receiving foreign direct investment are broken down by enterprise category as defined in the statistical decree implementing the Economic Modernisation Act (*loi de modernisation de l'économie* – LME).[6]

Large and mid-tier enterprises (LEs and MTEs) account for three quarters of the total stock of foreign direct investment in France, or more than EUR 240 billion and EUR 190 billion respectively at end-2015. Excluding real estate activities, IEs alone account for 42% of the total investment stock. Small and medium-sized enterprises (SMEs) account for just 5% (see table in Appendix 1).

For LEs, the average size of a foreign direct investment in France is EUR 1.6 billion, compared with EUR 91 million for MTEs and EUR 2 million for SMEs.

The size of the recipient company (the direct investment enterprise) is defined here according to the criteria applicable to entities domiciled in France. Many companies identified as SMEs or MTEs in fact belong to non-resident

6 See Methodological Appendix No. 4.

multinational firms and are therefore part of a large group.

Half of all foreign direct investments in France amount to less than EUR 15 million

Foreign direct investments in France are smaller than French residents' investments abroad. The median size of an individual equity investment in France at end-2015 was EUR 15 million, compared with EUR 21 million for French outward investments (see Tables c in Appendices 2 and 3).

Non-residents' investments are classified as direct investments when they exceed 10% of a company's equity. Nine times out of ten, foreign investors take a majority stake in the target company: of the 4,300 resident companies with foreign investment in excess of EUR 5 million,[7] over 4,000 or 93% were more than 50% foreign-owned. These companies account for 80% of total foreign direct investment in France (see Table c in Appendix 2).

3. The stock of French direct investment abroad has increased, driven primarily by new acquisitions

The stock of French direct investment abroad increased by 8% in 2015, reaching nearly EUR 1,200 billion at the end of the year. The rise was primarily driven by new acquisitions, which amounted to EUR 40 billion for the year, confirming the recovery seen in 2014.

In 2015, French groups continued to expand their international reach, mainly through relatively modest-sized transactions.

The "other transactions" category shows a net flow of lending by French companies to foreign subsidiaries and affiliates in 2015 for the third consecutive year. This is most likely due to the use of intercompany loans as a partial substitute for equity investments. The sharp drop in interest rates has made it more attractive to finance activities with borrowed funds rather than through own funds.

Exchange rate fluctuations had an impact on the value in euro of assets denominated in foreign currencies: between end-2014 and end-2015 outward investment stocks rose by EUR 33 billion as a result of currency appreciation in the main countries where French investments are located. Changes in the stock market valuation of listed companies also had a positive impact of EUR 9.7 billion.

The United States is the main destination for French direct investment abroad

At end-2015, on the basis of the immediate country of destination, the United States was the leading recipient of French outward investment, accounting for a total stock of EUR 210 billion (see Table a in Appendix 3).

After the United States, the main destination countries, accounting for 57% of the total stock, were all located in the European Union. Euro area countries in particular hosted 43% of the stock.

The top-ranking destinations for outward direct investment included Belgium, the Netherlands, the United Kingdom, Germany and Italy. China and Hong Kong together were the third largest non-EU host, after the United States and Switzerland. Japan and Brazil ranked fourth and fifth respectively.

One tenth of French direct investment abroad belongs to companies controlled by foreign groups

A portion of French outward direct investment comes from resident subsidiaries that are part of a non-resident group. A breakdown of positions by

7 Only companies in which non-residents have invested more than EUR 5 million are taken into account, as this creates a more homogeneous group that is easier to compare with equivalent companies receiving French outward direct investment.

ultimate investor shows that French subsidiaries of foreign groups held EUR 120 billion of foreign assets at end-2015, or 11% of the total stock of French direct investment abroad (see Table 2).

An analysis of French outward direct investment by destination and by country of residence of the ultimate investor also reveals a number of cases of "round tripping", where a foreign group owns a subsidiary in France which in turn holds direct investments in the country of residence of the group parent company. The United Kingdom is a good illustration of this, as it is the leading host economy for outward investment by French subsidiaries of British groups.

30% of French direct investment abroad is held by the manufacturing sector

The sector that invests the most outside France is manufacturing. At end-2015, it held 30% of France's total outward investment stocks, with pharmaceuticals, agriculture, food production and the automobile industry all accounting for the largest shares. The next biggest investors were the financial and insurance sector,[8] mining and quarrying, retail and wholesale trade and repairs, and the electricity sector (see Table b in Appendix 3).

The broader industrial sector (i.e. including mining and quarrying, and energy) accounts for 45% of French direct investment abroad. Industrial companies account for 28% of total turnover in the market sector, excluding agriculture, and financial and insurance activities.[9]

Large French resident enterprises hold 90% of direct investment abroad

The vast majority of French direct investment abroad is held by LEs: at end-2015 they owned over EUR 900 billion of equity in foreign companies[10] accounting for 86% of the total stock. Excluding investments in real estate and

T2 Main destinations of French outward direct investment, by country of residence of the ultimate owner, at end-2015
(amount in EUR billions; share as a %)

Country of residence of ultimate owner of French direct investments abroad	Country of investment (immediate counterparty)	31 December 2015	
		Amount	Share
France	United States	195.3	19.0
	Belgium	138.1	13.4
	Netherlands	112.4	10.9
	United Kingdom	101.2	9.8
	Other countries	481.7	46.8
	Total	1,028.8	100.0
Other countries	United Kingdom	15.9	12.9
	United States	14.1	11.4
	Spain	9.8	7.9
	Other countries	83.5	67.7
	Total	123.3	100.0
o/w United States	*Germany*	*4.8*	*13.7*
	Denmark	*4.1*	*11.8*
	Luxembourg	*3.8*	*11.0*
	Other countries	*22.2*	*63.5*
	Total	*35.0*	*100.0*
Switzerland	*United States*	*5.1*	*25.9*
	United Kingdom	*2.6*	*13.4*
	Egypt	*2.0*	*10.3*
	Other countries	*9.8*	*50.4*
	Total	*19.5*	*100.0*
Netherlands	*Luxembourg*	*3.1*	*18.2*
	United States	*1.9*	*11.2*
	Ireland	*1.7*	*10.0*
	Other countries	*10.2*	*60.5*
	Total	*16.9*	*100.0*
Germany	*Ireland*	*3.7*	*33.3*
	United States	*1.5*	*13.8*
	Belgium	*1.5*	*13.4*
	Other countries	*4.4*	*39.6*
	Total	*11.2*	*100.0*
Belgium	*United States*	*1.9*	*16.8*
	United Kingdom	*1.7*	*15.6*
	Germany	*1.4*	*12.7*
	Other countries	*4.4*	*54.8*
	Total	*11.1*	*100.0*
United Kingdom	*United Kingdom*	*4.7*	*43.6*
	Netherlands	*1.7*	*16.1*
	Poland	*1.6*	*15.0*
	Other countries	*2.7*	*25.3*
	Total	*10.7*	*100.0*

Source: Banque de France – July 2017.

8 These notably include banks, insurers and holding companies.

9 *Insee Références, Les entreprises en France*, 2016 edition: *https://www.insee.fr/fr/statistiques/2497076?sommaire=2497179*

10 Only stocks of equity investment are taken into account.

public administration, this share amounted to 90% (see Chart a in Appendix 3).

By comparison, in 2013, LEs accounted for 32% of the total value added produced by the market sector, while MTEs accounted for 24% and SMEs 44%.[11]

The main listed companies (45 groups, including the companies in the CAC 40) own EUR 730 billion of foreign equity investments, or 80% of the total stock held by LEs.

The average size of an individual investment is EUR 12 million for SMEs, EUR 140 million for MTEs and EUR 5.3 billion for LEs.

LEs, and to a lesser extent MTEs, have an international presence and therefore own several foreign subsidiaries as well as equity stakes in non-resident companies. SMEs in contrast rarely have foreign subsidiaries or equity stakes.

90% of French direct investment abroad is in subsidiaries

Of the 6,000 non-resident companies in which French investors hold more than EUR 5 million of equity (see Table c in Appendix 3):[12]

- around 610 are less than 50%-owned by French investors, representing an investment stock of EUR 104 billion;

- over 5,400 non-resident companies (90% of the total) are subsidiaries as they are more than 50%-owned by French residents, representing EUR 920 billion of investment or 90% of the total stock.

11 *Insee Références, Les entreprises en France,* 2016 edition: *https://www.insee.fr/fr/statistiques/2497076?sommaire=2497179*

12 Only companies in which non-residents have invested more than EUR 5 million are taken into account, as this creates a more homogeneous group that is easier to compare with equivalent companies receiving French outward direct investment.

Appendix 1
Statistics on France's net direct investment position

Breakdown of France's net direct investment position by country
(EUR billions)

	31 December 2014[a]	31 December 2015
Europe	**205.0**	**190.6**
Belgium	102.5	93.7
United Kingdom	50.1	42.7
Italy	30.4	34.2
Netherlands	30.0	33.6
Spain	24.2	27.3
Poland	15.4	18.4
Ireland	13.4	17.9
Russia	7.1	7.6
Germany	-2.0	-5.7
Switzerland	-10.9	-27.4
Luxembourg	-82.0	-80.4
Americas	**154.1**	**186.6**
United States	108.4	147.9
Brazil	25.5	18.6
Africa	**47.0**	**49.8**
Nigeria	8.5	9.1
Morocco	8.7	9.3
Asia	**74.9**	**84.6**
China and Hong Kong	26.9	30.7
Singapore	8.9	7.6
India	4.1	5.2
Oceania	**11.5**	**12.2**
Australia	11.0	11.0

Source: Banque de France – July 2017
a) Revised data.

Appendix 2
Statistics on foreign direct investment in France

Ta Main immediate investing countries for foreign direct investment in France
(amount in EUR billions; share as a %)

	31 December 2014[a]		31 December 2015	
	Amount	Share	Amount	Share
European Union (28 members)	**423.4**	**73.4**	**455.9**	**72.1**
Economic and Monetary Union (19 members)	**354.6**	**61.5**	**372.4**	**58.9**
Germany	52.8	9.2	60.2	9.5
Belgium	50.0	8.7	53.2	8.4
Spain	14.6	2.5	15.5	2.5
Ireland	5.6	1.0	5.1	0.8
Italy	15.5	2.7	17.4	2.8
Luxembourg	125.3	21.7	127.1	20.1
Netherlands	84.8	14.7	86.2	13.6
Other EU countries	**68.9**	**11.9**	**83.5**	**13.2**
Denmark	5.4	0.9	5.4	0.9
United Kingdom	59.7	10.4	74.5	11.8
Sweden	4.0	0.7	5.0	0.8
Other industrialised countries	**131.4**	**22.8**	**148.4**	**23.5**
Canada	2.7	0.5	3.4	0.5
United States	66.0	11.4	61.6	9.7
Japan	12.8	2.2	14.2	2.2
Switzerland	47.4	8.2	66.5	10.5
Rest of world	**21.7**	**3.8**	**27.9**	**4.4**
China	0.9	0.2	1.9	0.3
United Arab Emirates	0.5	0.1	1.2	0.2
Hong Kong	2.3	0.4	2.9	0.5
Lebanon	2.7	0.5	3.8	0.6
Qatar	1.2	0.2	1.3	0.2
Russia	1.5	0.3	1.6	0.3
Total	**576.6**	**100.0**	**632.3**	**100.0**

Source: Banque de France – July 2017.
a) Revised data.

Tb Main resident sectors receiving foreign capital

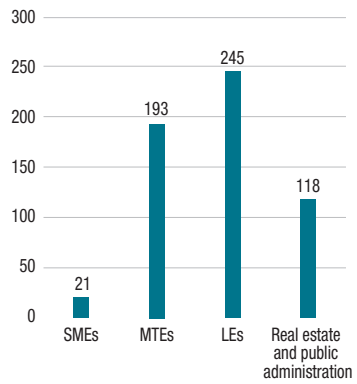
(amount in EUR billions; share as a %)

	31 December 2014[a]		31 December 2015	
	Amount	Share	Amount	Share
Financial and insurance activities	159.8	27.7	175.6	27.8
Financial services	*111.6*	*19.3*	*123.5*	*19.5*
o/w activities of holding companies	*64.5*	*11.2*	*70.8*	*11.2*
Manufacturing	154.0	26.7	154.4	24.4
Pharmaceuticals	*27.7*	*4.8*	*31.4*	*5.0*
Agriculture and manufacture of food	*29.0*	*5.0*	*29.7*	*4.7*
Chemicals	*29.5*	*5.1*	*30.1*	*4.8*
Real estate activities[b]	130.3	22.6	141.0	22.3
Wholesale and retail trade and repairs	41.8	7.3	45.7	7.2
Professional, scientific and technical activities	33.2	5.8	32.4	5.1
Construction	9.7	1.7	20.6	3.3
Information and communication	12.9	2.2	14.9	2.4
Transportation and storage	6.9	1.2	8.5	1.4
Administrative and support service activities	7.2	1.3	7.7	1.2
Electricity, gas, steam and air-conditioning supply	3.5	0.6	3.1	0.5
Accommodation and food service activities	5.4	0.9	5.3	0.8
Human health and social work activities	3.3	0.6	2.9	0.5
Mining and quarrying	1.4	0.2	4.1	0.6
Water supply, sewerage, waste management and remediation	0.3	0.1	0.6	0.1
Other activities	2.5	0.4	2.3	0.4
Amounts not broken down[c]	4.4	0.8	13.1	2.1
Total	576.6	100.0	632.3	100.0

Source: Banque de France – July 2017.
a) Revised data.
b) Includes stocks of foreign direct investment in the real estate sector and real estate property *stricto sensu* located in French territory and owned by non-residents.
c) Since 2011, a share of intercompany lending is taken from extrapolated data and as a result is not broken down by sector.

Foreign direct investment in French equity at end-2015, by enterprise category

(EUR billions)



Source: Banque de France – July 2017.
Note: Enterprise categories as defined in the 2008 Economic Modernisation Act (*loi de modernisation de l'économie* – LME).

Tc Breakdown of foreign direct investment in France (equity investment, excluding real estate)

(share as a %; amount in EUR billions; median in EUR billions)

Stake held	Number of direct investment enterprises	Share	Amount of equity investment	Share	Median equity investment in resident enterprises[a]
Equity investment greater than EUR 5 million					
Equity stakes	285	6.6	90.6	20.2	15.8
≥ 10% and < 20%	73	1.7	28.3	6.3	17.7
≥ 20% and < 50%	212	4.9	62.3	13.9	15.4
Subsidiaries	4,001	93.4	357.8	79.8	15.0
≥ 50% and < 90%	377	8.8	46.0	10.3	14.0
≥ 90%	3,624	84.6	311.8	69.5	15.2
Total[a]	4,286	100.0	448.4	100.0	15.1
Equity investment less than EUR 5 million	*12,878*		*9.9*		*0.4*
Total number of direct investment enterprises	17,164		458.3		0.8

Source: Banque de France – July 2017.
a) Taking into account the size of the equity stake.

Appendix 3
Statistics on French direct investment abroad

Ta Main immediate destination countries for French direct investment abroad
(amount in EUR billions; share as a %)

	31 December 2014[a]		31 December 2015	
	Amount	Share	Amount	Share
European Union (28 members)	**622.3**	**58.4**	**658.0**	**57.1**
Economic and Monetary Union (19 members)	**475.0**	**44.6**	**497.4**	**43.2**
Germany	50.8	4.8	54.6	4.7
Belgium	152.5	14.3	146.9	12.8
Spain	38.8	3.6	42.8	3.7
Ireland	18.9	1.8	23.0	2.0
Italy	45.9	4.3	51.7	4.5
Luxembourg	43.3	4.1	46.7	4.1
Netherlands	114.8	10.8	119.8	10.4
Other EU countries	**147.3**	**13.8**	**160.6**	**13.9**
Poland	14.0	1.3	16.1	1.4
Czech Republic	8.4	0.8	8.9	0.8
Romania	3.9	0.4	4.2	0.4
United Kingdom	109.8	10.3	117.1	10.2
Sweden	3.1	0.3	4.3	0.4
Other industrialised countries	**260.3**	**24.4**	**301.5**	**26.2**
Australia	11.6	1.1	11.6	1.0
Canada	9.1	0.9	8.5	0.7
United States	174.3	16.4	209.4	18.2
Japan	21.4	2.0	25.8	2.2
Switzerland	36.6	3.4	39.1	3.4
Rest of world	**183.4**	**17.2**	**192.5**	**16.7**
Bermuda	3.4	0.3	2.6	0.2
Brazil	25.2	2.4	18.4	1.6
China	21.1	2.0	24.2	2.1
Egypt	3.4	0.3	3.3	0.3
Hong Kong	9.1	0.9	11.2	1.0
India	4.1	0.4	5.3	0.5
Morocco	9.1	0.9	9.6	0.8
Nigeria	8.5	0.8	9.1	0.8
Russia	8.6	0.8	9.3	0.8
Singapore	9.6	0.9	10.8	0.9
Turkey	3.9	0.4	3.9	0.3
Total	**1,066.0**	**100.0**	**1,152.1**	**100.0**

a) Revised data.
Source: Banque de France – July 2017.

Tb Main resident sectors holding investments abroad

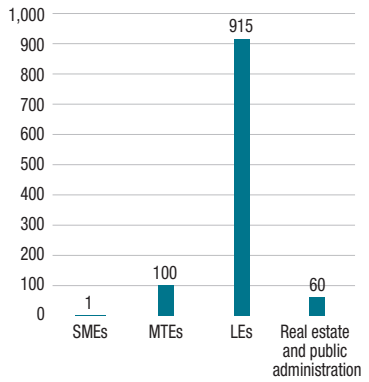
(amount in EUR billions; share as a %)

	31 December 2014[a]		31 December 2015	
	Amount	Share	Amount	Share
Manufacturing	321.1	30.1	342.0	29.7
Pharmaceuticals	*48.6*	*4.6*	*61.0*	*5.3*
Agriculture and manufacture of food	*54.7*	*5.1*	*54.4*	*4.7*
Manufacture of motor vehicles	*36.3*	*3.4*	*41.7*	*3.6*
Financial and insurance activities	265.7	24.9	283.4	24.6
Financial services	*182.6*	*17.1*	*195.2*	*16.9*
Activities of holding companies	*26.9*	*2.5*	*31.1*	*2.7*
Mining and quarrying	77.1	7.2	89.2	7.7
Wholesale and retail trade and repairs	80.6	7.6	83.8	7.3
Electricity, gas, steam and air-conditioning supply	80.5	7.6	80.8	7.0
Information and communication	68.2	6.4	73.8	6.4
Real estate activities	57.3	5.4	70.8	6.1
Professional, scientific and technical activities	41.2	3.9	47.5	4.1
Construction	26.8	2.5	26.4	2.3
Accommodation and food service activities	9.7	0.9	10.4	0.9
Transportation and storage	6.6	0.6	7.4	0.6
Water supply, sewerage, waste management and remediation	3.8	0.4	5.1	0.4
Administrative and support service activities	3.5	0.3	4.9	0.4
Other activities	4.4	0.4	6.0	0.5
Amounts not broken down[b]	21.3	2.0	22.7	2.0
Total	1,066.0	100.0	1,152.1	100.0

Source: Banque de France – July 2017.
a) Revised data.
b) Since 2011, a share of intercompany lending is taken from extrapolated data and as a result is not broken down by sector.

French direct investment in foreign equity at end-2015, by enterprise category

(EUR billions)



Source: Banque de France – July 2017.
Note: Enterprise categories as defined in the 2008 Economic Modernisation Act (*loi de modernisation de l'économie* – LME).

Tc Breakdown of outward direct investment (equity excluding real estate)

(share as a %; amount in EUR billions; median in EUR millions)

Stake held	Number of direct investment enterprises	Share	Amount of equity investment	Share	Median equity investment in non-resident enterprises[a]
Equity investment greater than EUR 5 million					
Equity stakes	611	10.1	103.9	10.1	24.6
≥ 10% and < 20%	191	3.2	38.3	3.7	22.9
≥ 20% and < 50%	420	7.0	65.6	6.4	25.8
Subsidiaries	5,412	89.9	920.5	89.9	21.1
≥ 50% and < 90%	790	13.1	133.3	13.0	22.1
≥ 90%	4,622	76.7	787.1	76.8	20.9
Total[a]	6,023	100.0	1,024.4	100.0	21.4
Equity investment less than EUR 5 million	*1,713*		*3.1*		*2.0*
Total number of direct investment enterprises	7,736		1,027.5		13.6

Source: Banque de France – July 2017.
a) Taking into account the size of the equity stake.

Appendix 4
Methodology

Definition of direct investment

The purpose of **France's international investment position** is to present a statement at the end of the accounting period of residents' claims and liabilities via-à-vis non-residents. It gives an indication of the amounts and structure of residents' net holdings of foreign financial assets and non-residents' net holdings of French financial assets (i.e. direct investments, portfolio investments, financial derivatives, other investments and reserve assets).

France's net direct investment position consists of stocks of French residents' direct investments abroad, less stocks of foreign direct investment in France.

French direct investment abroad and foreign direct investment in France consist of:

- equity stakes that are equal to or greater than 10% of voting rights;
- loans and deposits granted to these recipient enterprises by direct investors;
- investments in real estate.

In line with the recommendations of the Sixth Edition of the IMF *Balance of Payments and International Investment Position Manual*, **statistics on direct investment abroad** cover cases where an investor that is resident in the reporting economy directly holds equity that entitles it to 10% or more of the voting power in an enterprise resident in another economy (the direct investment enterprise). Once a direct investment relationship has been established, all cross-border financial relationships between the direct investor, the companies it controls, the direct investment enterprise and the companies it in turn controls (lending, borrowing, trade credit, equity investments, reinvested earnings) are also considered to be direct investments and are recorded as such. Direct investment stocks therefore include all capital held by non-resident direct investment enterprises (including real estate investments and earnings reinvested by resident direct investors), in proportion to the size of resident investors' equity stakes in those companies, plus all loans and deposits granted by resident investors to non-resident affiliates, including, since 2011, all trade credit between affiliates. Lending by non-resident subsidiaries to resident parent companies and by non-resident companies to resident fellow enterprises where the ultimate controlling parent is a resident company are deducted from French direct investment abroad in accordance with the directional principle.

Equity stakes in non-resident subsidiaries, capital allocations to foreign branches, and lending to non-financial affiliates are all included under direct investment by non-resident financial intermediaries. However, loans and advances by resident financial intermediaries to non-resident financial intermediaries are included under "other investment" instead of direct investment.

Similarly, **foreign direct investment in France** is where a non-resident enterprise directly holds equity entitling it to 10% or more of the voting power in an enterprise that is resident in the reporting country. All cross-border financial relationships between the two are then classified as direct investment: the resident enterprise's capital, included reinvested earnings, real estate investments and loans and deposits granted by non-residents and their resident affiliates, including, since 2011, trade credit between affiliates.

Borrowing by foreign parent companies from resident subsidiaries and by non-resident companies from a resident fellow enterprise where the ultimate

controlling parent is a non-resident are deducted from stocks of foreign direct investment in France in accordance with the directional principle. Lastly, loans and advances from non-resident financial intermediaries to resident financial intermediaries that are part of the same group are included under "other investment" and not under direct investment.

Sources

The stock of direct investment abroad held by resident enterprises, industrial and wholesale and retail trade companies, insurance companies and financial intermediaries is determined by means of three surveys conducted by the Banque de France. The first, carried out annually, gathers information on equity investments (excluding real estate investments); the second, which comprises a quarterly section and an annual section, compiles data on intercompany lending, excluding trade credit; and the third, which is also made up of two parts, covers trade credit between affiliates. Real estate investment stocks are calculated by adding together flows of acquisitions and sales.

The stock of foreign direct investment in French equity (i.e. excluding real estate investment) is calculated by identifying non-resident stakes in the equity capital of resident enterprises. Except in certain cases, only holdings of at least 10% of voting rights are counted as foreign direct investments in France.

Statistics are also compiled using the accounting documents of enterprises identified as having foreign direct investors.

Valuation of investment stocks

Stocks are expressed in mixed value, which means that equity in unlisted companies is recorded at book value, and equity in listed companies at market value. This mixed value provides an approximation of the market value of direct investment stocks.

Lending and borrowing between affiliates is expressed at nominal value. Real estate investments are recorded at historic cost, as they are calculated by adding together flows of acquisitions and sales, with no revaluation.

Population taken into account for equity investments

French direct investors include industrial, and wholesale and retail trade companies, financial intermediaries and insurance companies, and, less frequently, public administrations and households, whose headquarters are located in metropolitan France, in the overseas departments, in the overseas collectivity of Saint Pierre and Miquelon or in Monaco, regardless of the nationality of the shareholders or associates that have ultimate ownership or control. Thus, a resident enterprise that owns foreign subsidiaries and is controlled by a foreign group will be included in the calculation of French direct investment abroad. All non-resident subsidiaries in which a resident holds a stake of more than EUR 5 million must be declared in the annual Banque de France survey. An overall estimate is made for smaller investments.

In the 2015 survey, 1,832 resident legal entities declared they had direct equity investments abroad. Like most central banks, the Banque de France publishes statistics on direct investment stocks some 18 months after the close of the financial year, due to the time needed to collect and process accounting data.

French enterprises receiving foreign direct investment are industrial, and wholesale and retail trade companies, financial intermediaries and insurance companies whose headquarters are located in metropolitan France, in an overseas department or in Monaco, regardless of the nationality of the shareholders or associates that have ultimate ownership or control. Thus, a resident enterprise owned by a foreign holding

company that is itself part of a French group will be included in the calculation of foreign direct investment in France. Establishments and branches that are geographically separate production units but legally dependent on a foreign parent company, are also included under foreign direct investment in France if they keep separate accounts from the foreign parent.

In the 2015 survey on foreign direct investment in France, data were collected on 17,164 resident legal entities.

Geographical breakdown

The non-resident enterprises included in the survey are enterprises in which French resident investors hold at least 10% of the voting power, and which are located in a country other than metropolitan France, the French overseas departments, the overseas collectivity of Saint Pierre and Miquelon, and the Principality of Monaco. The survey conducted at end-2015 identified 7,736 such enterprises.

According to the Sixth Edition of the IMF *Balance of Payments and International Investment Position Manual*, direct investment positions by partner economy should be reported according to the immediate counterparty. Therefore, if a French company invests in China via a subsidiary based in another country or territory (e.g. in Hong Kong), only the immediate investing economy will be taken into account in the direct investment statistics, and not China, which is the final recipient of the investment.

Investments are also broken down by country of residence of the ultimate investor, defined as being the entity at the head of the chain of financial links (ownership of more than 50%) that makes up a group. The ultimate investor (or head of the group) is identified in order to have better knowledge of the ultimate controlling parent of the resident enterprise that made the outward investment.

Breakdown by sector

Investments are broken down according to the sector of activity attributed to each resident enterprise in the companies register compiled by the national statistics institute Insee. Sectors are defined in accordance with NACE Rev. 2. However, due to the tendency of large international groups to group together their subsidiaries and capital stakes in holding companies, the traditional sector breakdown had become less relevant. As a result, holdings are classified according to the economic sector of the parent company, where the latter is listed. To produce a breakdown similar to that of the stock market indices, holding companies are reclassified using the Industry Classification Benchmark (ICB), developed by Dow Jones and FTSE. The system classifies listed companies by economic sector, and is used by several stock exchanges, including Paris, New York and London, which together account for roughly two-thirds of the world's stock market capitalisation. The ICB is used to compile the sector indices proposed by the main global exchanges.

Enterprise categories

Enterprise categories defined by the decree enacting the 2008 LME (*https://www.insee.fr/fr/metadonnees/definition/c1057*):

- small and medium-sized enterprises (SMEs): companies with up to 250 employees and annual turnover not exceeding EUR 50 million or a balance sheet total not exceeding EUR 43 million;

- mid-tier enterprises (MTEs): companies with between 250 and 5,000 employees and annual turnover not exceeding EUR 1,500 million or a balance sheet total not exceeding EUR 2,000 million;

- large enterprises (LEs): all other firms.

A portion of direct investment concerns entities that cannot be classified under any of the above categories: mainly real estate and public administration.

Growing inequalities in the American model

François Haas
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Economic inequalities have become a major focus of academic research as well as policy makers' deliberations. In the United States, while some of the renewed interest in this subject can be attributed to questions surrounding the election of Donald Trump, it is not the only factor: even before the election, the work of Thomas Piketty on the growth in inequalities had already fuelled considerable controversy and had been commented on in numerous research papers. Deliberations on globalisation and openness to trade have also raised questions as to their impact on economic inequalities. As the United States is a society that was founded on the promotion of access to opportunities for all, i.e. on equity and equality of opportunity rather than equality itself, the question as to the balance between inequalities and opportunities (do inequalities foster opportunities or rather do they hinder them?) often arises.

This question is particularly pertinent today. Certain commentators have come to the bleak conclusion that the "American dream" has been appropriated by the wealthiest members of society or by a small fraction of the middle class and that the United States is gradually becoming a class-based society.

Keywords: inequalities, globalisation, redistribution, education, income

JEL codes: D31, E25, E62, H20, I32

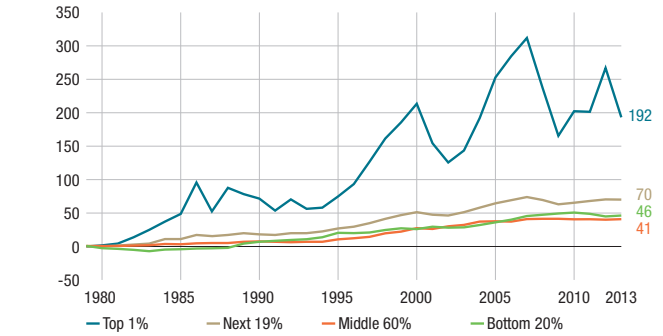
Key figures

From 92% to 50%
the decline in absolute income mobility between 1940 and 1985

31% and 54%
the share of pre-tax income received and wealth possessed of the richest 3% of the population in 2013

Change in real net income since 1979 in the United States

(% change in after-tax real income)



Source: Congressional Budget Office – CBO.

The United States is a society founded more on the promotion of equal opportunities and access to those opportunities for all, rather than equal conditions. Therefore, the question as to the balance between inequalities and opportunities (do inequalities foster opportunities or rather do they hinder them?) often arises. The widening economic inequalities in the United States over recent decades, and more recently research attempting to rationalise the election of Donald Trump, have understandably fuelled debate and analyses in academic and policy-maker circles. The explanations that have been put forward are numerous and wide-ranging – from critiques of economic globalisation to denunciations of the lack of public policies designed to offer support to those affected by it, or from the effects of financialisation to reprovals of certain aspects of the educational model – and are complementary rather than exclusive. Does this appropriation of the American dream by society's privileged few that is decried by certain commentators herald a more radical transformation of the American model?

1. The economic effects of globalisation and their social and political consequences

Denunciations of globalisation fuel populist phenomena

In his recent paper entitled *Populism and the Economics of Globalization*, Dani Rodrik argues that while the surge in populism in response to globalisation is hardly surprising, the forms that it has taken (that no longer conform to the standard template of opposition, often with authoritarian leanings, to the elite and economic liberalism) vary and should be considered in light of the different ways in which countries have been affected by globalisation shocks.

The first signs of this type of movement, spurred on by the decline in agricultural prices under deflationary pressure from the Gold Standard, can be seen at the end of the 19th century: the reimposition of trade barriers on agricultural products and the introduction of anti-immigration policies such as the Chinese Exclusion Act of 1882 and similar measures to restrict Japanese immigration in 1907. Economic globalisation and the development of migration flows (which ultimately Rodrik considers in scant detail despite it being one of the key factors in his conclusions on the form taken by populist movements) are phenomena that can generate significant political and social cleavages due to their strong redistributive implications (widening inequalities in one country while narrowing them in another). For example, the Stolper-Samuelson theorem on openness to trade states that opening up borders to trade between two countries will result in widening inequalities in the country with a comparative advantage in technology-intensive tradable goods production (and manufactured by the most highly skilled workforce), and narrowing inequalities in the country with a comparative advantage in low-technology tradable goods production. As borders open, the low-skilled workers in the first country will find themselves competing with the low-skilled, and far more numerous, workers in the second. Wage inequalities will increase in the first country (absolute losses for low-skilled workers) but will tend to decrease in the second country (absolute losses for skilled workers).

In Rodrik's opinion, while net gains from opening up borders tend to decline as trade barriers diminish, the redistributive effects on the other hand tend to increase, and soon swamp the gains.

In addition, the gains from opening up borders are redistributed within society, or not, depending on the country, in such a way as to cushion the losses of those most directly affected in the economy. In continental Europe, openness to trade was thus made more acceptable by the social model of the welfare state, in contrast to the United States, which incidentally opened up later to international trade, where this redistributive mechanism that cushions the impact of cross-border trade is not in place.

If globalisation has turned out to be a facile catalyst for discontent (even more than other sources of economic shocks such as technological change for example), in Rodrik's opinion it is because it can be more easily interpreted (and condemned) based on national standards of economic and/or social equity (absence of social protection or environmental standards), and not inequality.

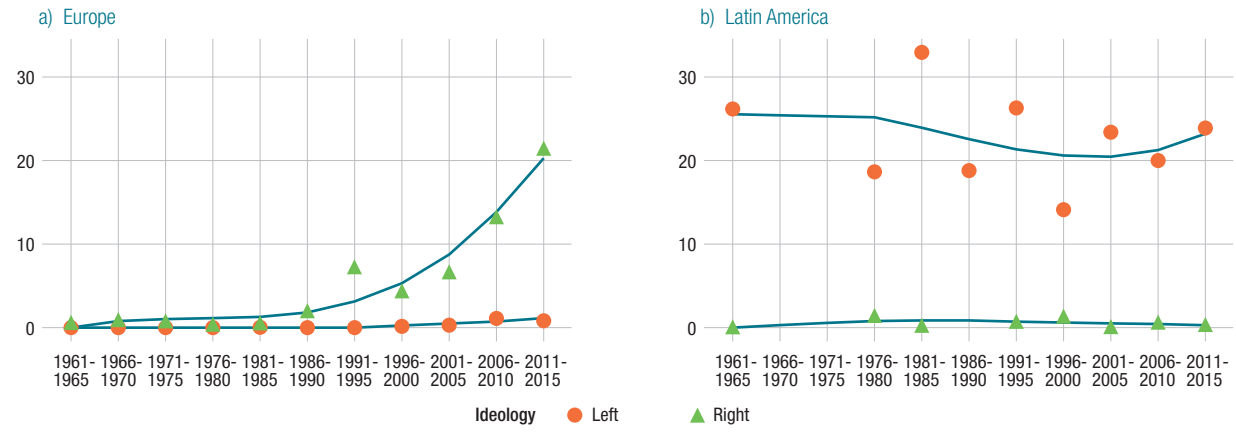
The same perspective can be applied to financial globalisation and is coupled with a far more ambivalent attitude from economists with regard to its actual benefits. Although this debate initially focused on the situation in emerging countries and the impact of short-term capital flows, since the financial crisis it has also become relevant to advanced economies: financial globalisation is now perceived as not only having a hand in amplifying crises, but also in widening inequalities.

From one country to another, and from one continent to another, populist backlashes to these developments take different forms, fostering movements with varying political stances and platforms. When this mobilisation – a protectionist movement – crystallises around issues of immigration or refugees, political programmes form along ethnic and cultural lines, as is the case in northern Europe. By contrast, when financial concerns and issues of economic and trade equity predominate, political programmes focus on the decline in economic and social status, as occurred in southern Europe and Latin America (see Chart 1). The United States and the United Kingdom (as well as France) are noteworthy in that both these forms of populism developed simultaneously.

The consequences of globalisation on US employment are amplified by public policies

The public policies implemented to deal with the globalisation shock are central to the work of Josh Bivens (2017). In his report, he looks back over the US authorities' handling of globalisation, and particularly international trade agreements. Taking the redistributive impacts inherent in openness to international trade as its starting point, the report then sets out the amplifying effects on employment of

C1 Divergent forms of populism in Europe and Latin America
(x-axis: five-year intervals; y-axis: share of vote)



Source: Rodrik (D.) (2017).

the public policies (or lack thereof) pursued by the United States:

• the appropriation or "capture" of the international trade agreement negotiating processes by major corporations and the priority given to protecting the mobility of capital over labour, which is less mobile (by, for example, weakening collective bargaining rights);

• the laissez faire attitude to exchange rates – the growing dollar currency misalignments that weigh directly on domestic industrial employment (mirroring the central argument upheld by Gagnon and Bergsten of the Peterson Institute) – that is considered the main, if not the only, factor in the haemorrhaging of jobs in the manufacturing sector.

While opening up to international trade may be a "win-win" strategy at the macroeconomic level for the countries involved, it is not the case for the different groups affected within each of the economies. Taking the example of a country like the United States, the burgeoning specialisation in technology-intensive goods leads to dwindling demand for low-skilled workers. And the impact of this reduced demand is not limited to those workers and economic agents that are directly concerned; it also has repercussions on all workers and agents, including in protected sectors, due to the overall downward pressure exerted on wages.

As the reality of these extensive redistributive effects went unrecognised and the impacts of trade agreements were believed to be small and concentrated in the economic sectors that were directly affected by international competition, no public policies to counter these redistributive effects were implemented aside from inadequate measures such as Trade Adjustment Assistance (TAA).[1] In any case, such policies would be difficult to introduce bearing in mind that, according to the author, international trade redistributes about five to six times more income than it creates.

Changes in international trade agreements in recent decades have amplified their "usual" negative effects on employment: the proliferation of clauses such as the Investor-State Dispute Settlement (ISDS) or Investment Court System (ICS) provisions, which enhance the protection of investments abroad, promote the mobility of capital and encourage those investing corporations to relocate to overseas manufacturing facilities that will ultimately replace the original domestic production.[2]

In the face of such an assessment, Josh Bivens' proposed solutions – the suspension of all new negotiations on multilateral trade agreements and the renegotiation of existing agreements to remove troublesome ISDS-type provisions and incorporate environmental and social criteria, international coordination to realign exchange rates, international coordination to combat tax evasion, and the implementation of a financial transaction tax (FTT) – appear to be largely inadequate for the issues identified, and sometimes naive and rarely articulated.

2. Questioning the American economic and social model

Academic research has rapidly expanded beyond the analysis of globalisation's effects, in its narrow sense, in weakening the US economic and social fabric, to address the wider subject of growing inequalities in the United States and their manifestations and causes. This is not a new subject but has acquired renewed relevance, first with the publication of the work of Thomas Piketty,[3] and more importantly, following the election of Donald Trump.

The conclusion that economic inequalities in US society are widening is sometimes challenged

The finding itself is subject to intense – and highly ideologically motivated – debate within

1 Trade Adjustment Assistance (TAA) is a federal programme designed to compensate the sectors and workers that are the direct "victims" of international trade agreements, through relocation allowances or retraining programmes, for example. The measures put in place within the framework of the TAA are generally considered to be inadequate and fairly ineffective.

2 Curiously, the question of the collective benefits that can be derived from the development of common standards on these subjects, and more broadly the implementation of a rule of international law, is not discussed.

3 *http://piketty.blog.lemonde.fr/2016/03/06/inequality-in-america/*. In fact, the debates that we see developing on the subject of inequalities are very often an organised response to the work of Thomas Piketty, and frequently take on the appearance of a face-off between Piketty's supporters and opponents.

think tanks and universities. In this context, Michael D. Tanner, in his Cato Institute study of September 2016, set out what he considered to be methodological flaws in Thomas Piketty's book *Capital in the Twenty-First Century*, and then sought to demonstrate the following, often by significantly manipulating the data.

• The US system is highly redistributive in nature (through federal taxes and transfers); according to the Congressional Budget Office (CBO), measures of income inequalities would be reduced by 18% if taxation and transfer payments were taken into account (2013 data). In the author's opinion, this effect is far more significant (26%) if all federal and local transfers, particularly public programmes to address poverty and "in-kind" transfers, are taken into consideration.

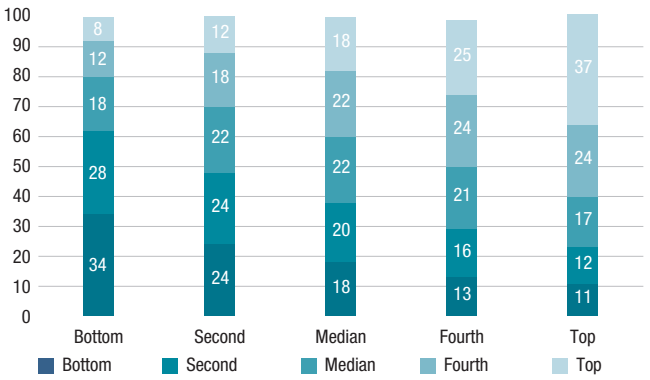
• The richest households have earned, rather than inherited, their wealth. Furthermore, wealth transfers actually have an "equalising" effect, because "as a proportion of their current wealth holdings, wealth transfers are actually greater for poorer households" (and this is particularly true for minority households).

• Above all, the social ladder is working effectively since 20% of children born in the bottom income bracket of the population will reach one of the top two income brackets later in life (see Chart 2). Besides, widening inequalities, if they were proven, would not necessarily mean more poverty (see Chart 3).

• There are disadvantages associated with government intervention, which can contribute to amplifying inequalities by favouring vested interests in the business environment, restricting competition (particularly through excessive regulation) in favour of established companies and to the detriment of new entrants, and ultimately undermining economic dynamism and social mobility.

C2 Relative economic mobility of children according to parental income

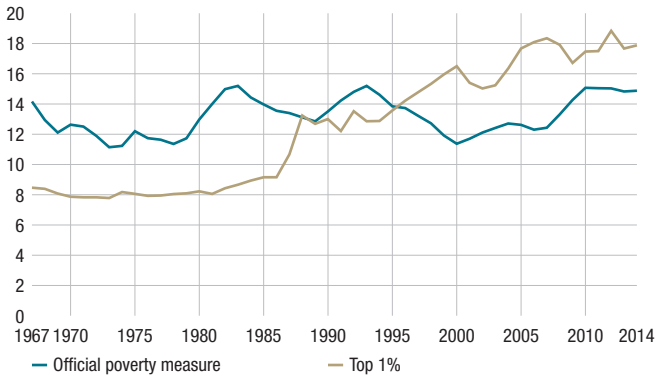
(x-axis: quintile of parent family income, %; y-axis: % of adult children in each family income quintile)



Source: Chetty et al. (2014).

C3 Poverty and the top 1%

(%)



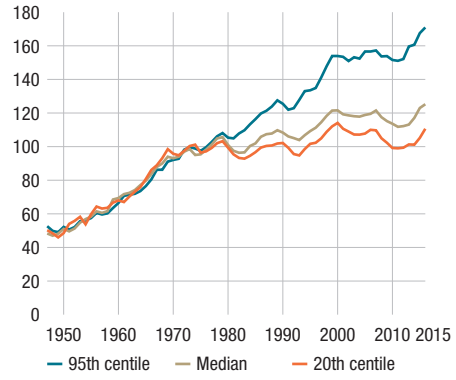
Sources: Studies by Alvaredo (F.) (2013), Atkinson (T.) (2011), Piketty (T.) (2001, 2005), Saez (E.) (2003) and Zucman (G.) (2013, 2014), using the World Wealth and Income Database (WID); US Census Bureau, "Historical poverty tables: people", *https://www.census.gov/ hhes/www/poverty/data/historical/people.html*
Note: The "official poverty measure" represents the percentage of the population below the poverty threshold. The "top 1%" corresponds to the share of after-tax income received by the wealthiest 1% of the population.

Nevertheless inequalities are real and have been growing since the 1970s

Shared prosperity until the 1970s gave way to widening disparities in income growth (see Chart 4).[4]

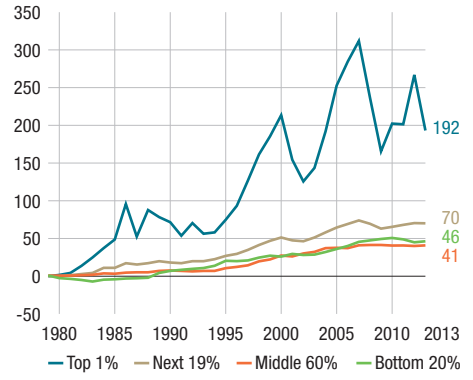
4 Statistical data on inequality trends are difficult to compile and very often their use is somewhat biased. For the purposes of this article, we have tried to draw from objective presentations. Data has been taken from "A guide to statistics on historical trends in income inequality" CBPP, November 2016.

C4 Change in real family income from 1947 to 2015
(% of 1973 level)



Source: US Census Bureau; Center on Budget and Policy Priorities (CBPP) calculations.
Notes: In 2014, the US Census Bureau separated its sample into two groups of people in order to test the newly overhauled survey of income. In 2015 (responses relating to 2014 incomes using the new survey format), the US Census Bureau published two estimates for 2013 incomes, with one based on the old survey and the second based on the new format. The Chart shows an estimate based on the old survey, made by the Center on Budget and Policy Priorities (CBPP), which is likely to be more precise for 2013 in part due to the size of the sample.

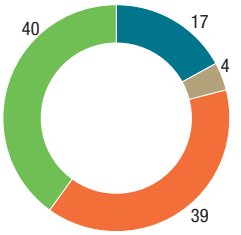
C5 Change in real net income since 1979 in the United States
(% change in after-tax real income)



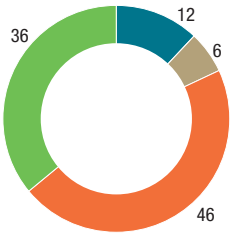
Source: Congressional Budget Office – CBO.

C6 Income distribution in 2013
(%)

a) Before federal taxes and transfers



b) After federal taxes and transfers



Source: Congressional Budget Office – CBO; Center on Budget and Policy Priorities (CBPP) calculations.

This phenomenon peaked just before the financial crisis and has since been corrected to a certain extent by the progressive aspects of the US federal transfer system (see Charts 5 and 6).

On the same subject, using data going back to the 1940s, Chetty et al.[5] find that absolute income mobility declined from 92% for children born in 1940 to 50% for children born in 1984 (see Chart 7).[6]

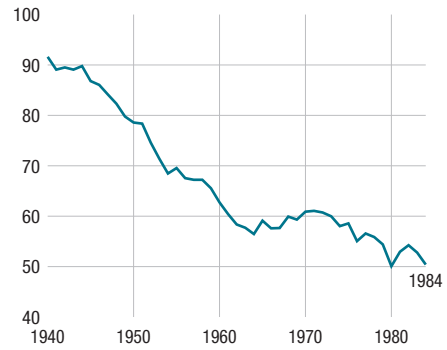
Essentially, this decline in absolute income mobility stems from an increasingly unequal distribution of economic growth, rather than from a slowdown in economic growth rates. The study also finds that the stagnation in median earnings is in large part due to contracting access to a better education: on average, children born at the beginning of the 1940s received two years more education than their parents. This advantage contracted to 0.75 year of additional education for the generation born in the early 1980s and has become increasingly concentrated among children from the upper end of the income distribution.

5 See Chetty et al. (2016).

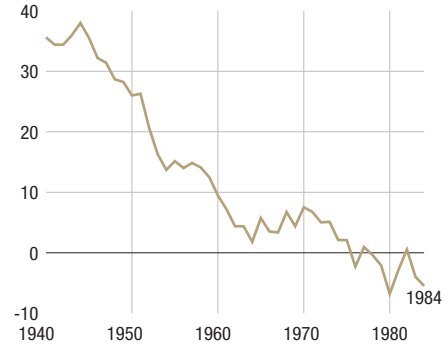
6 Absolute Income Mobility is defined as the proportion of individuals in a cohort, which at a given age – 30 and 40 years old – earned more than their parents at the same age (or the median income of their parents' generation).

C7 Mobility and infant-parent income gap
Relationship over time

a) Absolute mobility
(%)



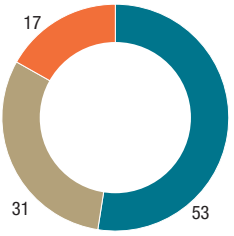
b) Real median income
(USD thousands)



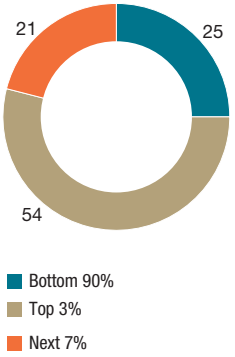
Sources: Katz (L. F.) and Krueger (A. B.) (2017) calculations, based on data from Chetty (R.) et al. (2016).

C8 Distribution of income and wealth in 2013
(%)

a) Distribution of pre-tax income



b) Distribution of wealth



Source: US Federal Reserve System, *2014 Survey of Consumer Finance*.

The observed inequalities are also a consequence of greater concentration in the distribution of wealth than in the distribution of income, as shown by data from the *2014 Survey of Consumer Finance* conducted by the US Federal Reserve System (the Fed) (see Chart 8).

The finding of widening income inequality since the 1970s is notably upheld in the recent work (2016) of Lansing (Federal Reserve Bank of San Francisco) and Markiewicz (Erasmus University of Rotterdam), who also demonstrate the role played by federal transfers in cushioning the effects of this widening inequality, and show that they are more effective than progressive taxation. Saez and Zucman (2016) also highlight the influence of the top 0.1% of richest households – which are increasing their concentration of wealth – in distorting the distribution of wealth in recent decades.

3. Numerous and partial causes of widening inequalities in the United States

Recognising that inequalities are widening inevitably leads to an examination of the causes

and why the phenomenon instantly results in wage stagnation or reductions.

In purely economic terms, the globalisation phenomenon, or more precisely the inadequacy of the public policies intended to absorb this type of shock and handle the effects, could have contributed to the development of this situation. This conclusion also applies to technological transformations if they are not complemented by adequate training provision to the workers or economic actors involved – the role of training and education is crucial.

The transformations underway in the American economic model are also frequently singled out, and primarily crystallise around two perspectives.

• The "shareholder revolution" and transformations in corporate financing, which is considered during recent decades to have resulted in companies favouring rapid value creation to enrich their shareholders over investment in production capacity – the massive buy-back programmes or borrowing to fund dividend payments are just the most recent, extreme examples.[7]

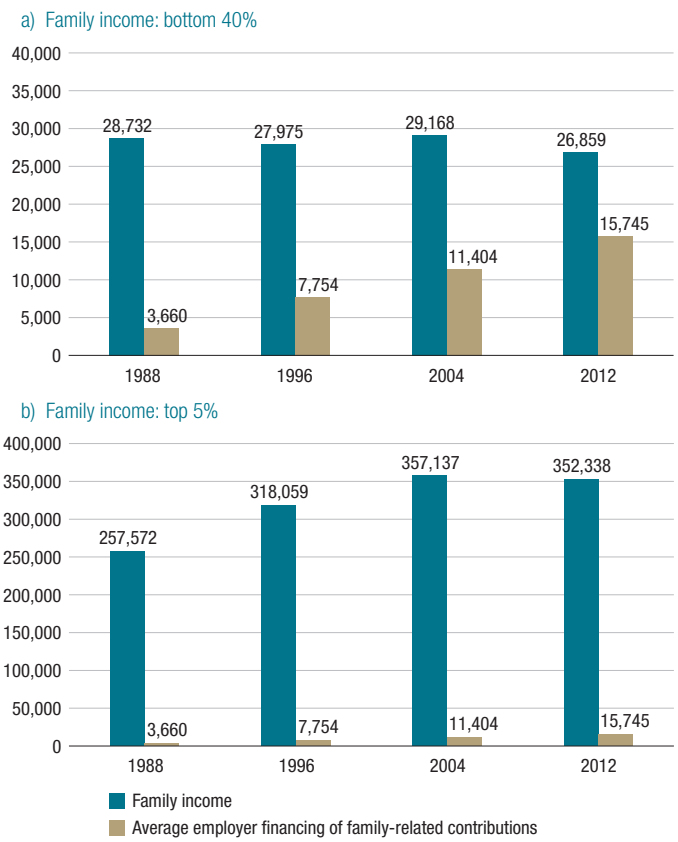
• The "partnership" that developed between government authorities and major corporations and the "capture" of the former by the latter, which is considered to have facilitated the creation of the conditions that led to the shareholder revolution (and the rise of "rentier" corporations).[8] These analyses follow a similar (and indeed complementary) reasoning to that presented in the study of the rise of the upper middle class (see Chart 9, which shows that increases in health insurance contributions disproportionately affect workers earning modest wages).

The health insurance system is often singled out as one of the sources of widening inequality in that increases in healthcare costs disproportionately affect low and moderate wage earners, both directly through rising health insurance premiums, and indirectly through increased health insurance deductibles, which go so far as to offset wage increases.

Another study presented by Richard Reeves of the Brookings Institute, gives centre place to education, in its broadest sense. Reeves champions the quite provocative notion that the United States' problem now is not so much the concentration of wealth

C9 Relationship between employer family-related insurance contributions and family income

(US dollars)



Sources: US Census Bureau for family incomes – "money income" only, excluding benefits-in-kind; Kaiser Family Foundation/Health Research and Educational Trust, *Employer Health Benefits Survey*, 2004 and 2012, for average employer-sponsored family health insurance contributions; *KPMG Survey of Employer-Sponsored Health Benefits*, 1996; Health Insurance Association of America, 1988.
Notes: All figures are adjusted for inflation (2012, US dollars; US Bureau of Labor Statistics' Consumer Price Index for All Urban Consumers).

among the top 1% of richest households, but the growing gap that has been created between the top 20% (households with an annual income of over USD 200,000) and the rest of the population. By succeeding in preserving its advantages and passing them on to the next generation, the upper middle class now monopolises the "American dream", drastically reducing social mobility and economic dynamism and ultimately transforming the United States into a class-based society similar to the British model.

This appropriation of the American dream, that is, of a "genuine" meritocracy, can be seen in the hoarding of opportunities, which creates a glass ceiling (and effectively a glass floor protecting the wealthiest 20%). This hoarding takes many forms, but they all revolve around the question of access to education.[9] Examples of this phenomenon can be seen in:

• the system of legacy admissions that gives preferential access to universities – and generally the most prestigious universities – to children of alumni;

• exclusionary zoning practices in the property markets that end up reducing social mobility and diversity and directly affecting the quality of the education provided because the funding available for the education system depends on local taxes (and the financial "firepower" of the parent associations). These situations in turn contribute to maintaining property prices and the exclusivity of residential zones. This phenomenon is exacerbated not only by tax deductions on mortgage interest (the untouchable "Mortgage Interest Deductibility") but also local property tax deductions;

• 529 college savings plans, which are investment vehicles that are not subject to taxation at federal level (nor, to a large extent, at state level), and whose tax advantages in 90% of cases benefit middle upper class households.

US society has never been egalitarian, and has never claimed to be. In fact, for a long time the existence of inequalities within society was, and to a certain extent for certain groups still is, synonymous with opportunities to be seized by the people most affected by those inequalities. As long as the system is equitable, it can be inegalitarian.

What appears to have changed over the last few decades is precisely the fact that those opportunities, and the social and economic mobility that goes with them, are decreasing. The magnitude of the academic research devoted to the subject, its prevalence in public debate and the election of Donald Trump (paradoxically, despite the policies he proposed) illustrate this radical change but also the difficulties encountered in providing appropriate responses. Should the United States transform into a rigid, class-based society, the appropriate response cannot be purely quantitative, in the form of higher growth rates; that growth must also be combined with pro-active policies in education, health, taxation and so on.

Lastly, it is important to note that the Fed actively contributes to the debate on changing inequalities, its causes and its consequences, and has done so for many years now. Its responsibilities in implementing the Community Reinvestment Act and conducting the *Survey of Consumer Finances*, and its standing in the field of economic research give the Fed the means to carry out in-depth analyses. Furthermore, the change in inequalities and the forms they take, and the consequences they have for the dynamism of the US economy clearly have implications for the "quality" of monetary policy implementation and warrant the involvement of the Fed in these issues. During a conference organised in autumn 2014 by the Federal Reserve Bank of Boston, Janet Yellen therefore encouraged the academic community (and the Fed's own economists) to delve more deeply into the question of inequalities and its implications for monetary

policy. In addition, many speeches given by both the Chair and the Vice Chair demonstrate this tradition of involvement in public debate – an involvement that is warranted given the institution's moral stature and expertise – even when it sometimes means fuelling controversy: *"The extent of and continuing increase in inequality in the United States greatly concern me. […] By some estimates, income and wealth inequality are near their highest levels in the past hundred years, much higher than the average during that time span and probably higher than for much of American history before then. It is no secret that the past few decades of widening inequality can be summed up as significant income and wealth gains for those at the very top and stagnant living standards for the majority. I think it is appropriate to ask whether this trend is compatible with values rooted in our nation's history, among them the high value Americans have traditionally placed on equality of opportunity.*

Some degree of inequality in income and wealth, of course, would occur even with completely equal opportunity because variations in effort, skill, and luck will produce variations in outcomes. Indeed, some variation in outcomes arguably contributes to economic growth because it creates incentives to work hard, get an education, save, invest, and undertake risk. However, to the extent that opportunity itself is enhanced by access to economic resources, inequality of outcomes can exacerbate inequality of opportunity, thereby perpetuating a trend of increasing inequality. Such a link is suggested by the "Great Gatsby Curve", the finding that, among advanced economies, greater income inequality is associated with diminished intergenerational mobility."

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The debt of major French groups: changes and financing choices

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The financial crisis has generated renewed interest in the question of companies' financing choices, and especially those of the largest firms which have greater latitude in this regard. In order to assess the debt of the major groups it is necessary to analyse (i) the relative share of equity and financial debt in financing the groups' economic assets, (ii) their debt repayment ability and (iii) the relationship between debt and investment, as the latter allows for future income growth.

We have observed an improvement in the solvency of major groups after they shored up their equity. However, they are struggling to generate a greater increase in their operating cash flow than that of their net debt. As a result, we analyse the extent to which the new debt of French groups can be used to finance investments that would boost future income. In 2016, new financial debt was used more to finance investment in acquisitions than investment in tangible and intangible assets.

Key words: financial debt, cash, equity, goodwill, repayment ability, investment

JEL codes: G31, G32

Key figures in 2016

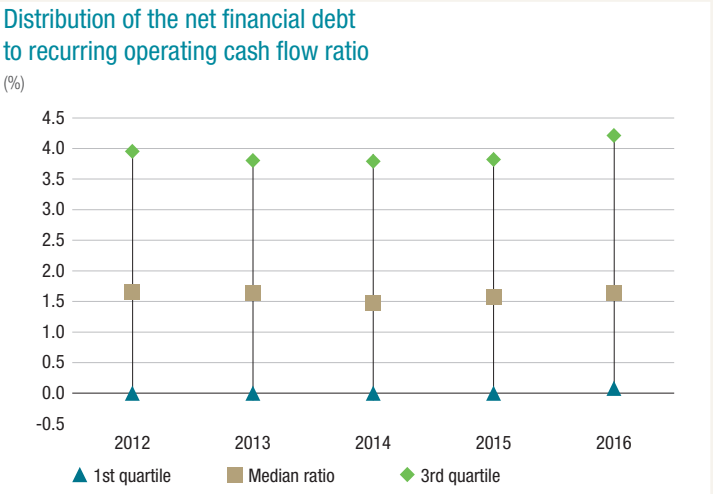
4.2%
rise in the net financial debt of all groups under review

2.6%
increase in the operating cash flow of all groups under review

55.1%
net leverage ratio (net debt to equity ratio) of all groups under review

303
the number of groups in the sample, of which seventeen CAC 40 groups and major groups not listed on the CAC 40 (Auchan, Saint Gobain, Dassault Aviation, Lagardère, Seb, Korian, etc.)

Distribution of the net financial debt to recurring operating cash flow ratio



Sources: Banque de France – FIBEN database – Consolidated financial statements collected up to August 2017.
Scope: See Box 1.

1. The leverage ratios of the major groups have decreased since 2012, thanks to strong equity growth

The groups use two main long-term sources to finance investment: equity and financial debt.[1] The latter can be broken down into market financing[2] and bank debt. In the sample, the relative share of bank debt (short-term borrowings, overdrafts, and finance leases) in total financial debt fell from 40.6% in 2012 to 34.6% in 2016.

From the shareholder's perspective, the leverage ratio (financial debt to equity) measures the risk that debt poses to equity beyond a certain threshold. From the lender's perspective, debt can be seen as an advance on the future cash flows generated by investments made. Group equity, which can be used to assess shareholders' commitment to financing group assets, acts as a signal for creditors. Therefore, the leverage ratio can be an indication of the quality of the guarantee offered by equity.

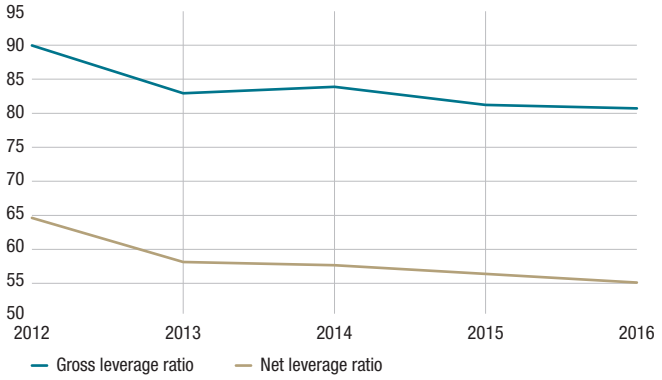
In this study, the gross leverage ratio reflects total gross financial debt (long-term and short-term) to total equity. The numerator of the net leverage ratio is total net financial debt, i.e. gross debt minus cash and readily available cash equivalents. It is useful to analyse the first (gross) ratio in order to assess individual risk, while the second (net) ratio provides complementary information of a more macroeconomic nature. In particular, since the financial crisis of 2007, it has proved particularly important to take into account liquid assets in debt analysis since groups have significantly increased their cash holdings to serve as a precautionary buffer in particular.

The level of risk associated with the gross and net leverage ratios of the groups under review fell in 2016

Based on aggregate sample data, the averages of the gross and net leverage ratios weighted by the relative share of each group in the total equity of the sample as a whole decreased by 10 percentage points, to stand at 55.1% and 80.7% in 2016, against 64.6% and 90.0% in 2012 (see Chart 1).

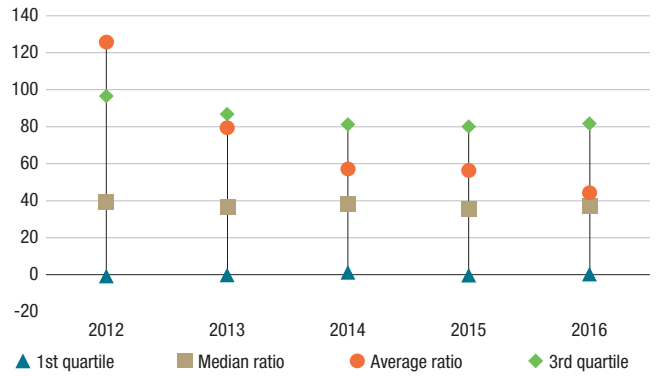
However, this general trend is not homogeneous across the sample since we observe that this decline was concentrated exclusively among the highest net leverage ratios. This reflects the fall in the level of risk associated with the leverage ratios of the major French groups. Looking at Chart 2, we

C1 Groups' gross and net leverage ratios
(%)



Source: Banque de France – FIBEN database (consolidated financial statements collected up to August 2017).
Scope: See Box 1.
Note: Curves represent the average leverage ratios weighted by the relative share of each group in the total equity of the sample as a whole.

C2 Distribution of the net financial debt to total equity ratio
(%)



Source: Banque de France – FIBEN database (consolidated financial statements collected up to August 2017).
Scope: See Box 1.

1 For further information (in French) on firms' financing methods: see Note d'information: October 2015: *https://abc-economie.banque-france.fr/sites/default/files/medias/documents/ni-financement-entreprises.pdf*

2 Bonds (long-term securities), medium-term debt securities, (negotiable European medium-term note - NEU MTN), short-term negotiable debt securities (negotiable European commercial paper – NEU CP).

Box 1

Study methodology

By analysing the consolidated financial statements of the groups, we can avoid the problem of intra-group flows. However, using consolidated financial statements does not rule out the risk of double counting in statistical studies. Indeed, consolidation can be carried out in steps with, for example, the consolidation of the financial statements of a second-tier subsidiary with those of the subsidiary, the consolidated financial statements of the sub-group obtained in this way would then be consolidated with the financial statements of the parent company; items in the financial statements of the sub-group would be double counted with those of the group. To avoid this problem, this study focuses on highest level consolidation data, which account for 93% of the 4,700 or so consolidated financial statements of French non-financial groups collected by the Banque de France.

Here, we consider groups that prepare their financial statements in accordance with International Financial Reporting Standards (IFRS), which allows us, in particular, to take account of how goodwill may affect equity (see Box 2). This criterion results in the selection of the largest groups, which also have the predominant role in investment. For instance, from an initial sample of 650 non-financial groups, in which the State doesn't hold a majority stake, and whose financial statements are prepared in accordance with IFRS and consolidated at the highest level, we narrow it down to a balanced sample from 2012 to 2016 comprising 303 of these groups.

First, the results are presented in the form of aggregate data for the whole sample, in order to obtain an overall indication of the changes. The statistical value obtained is thus the average of the values weighted by the relative share of each group. Second, we provide a more detailed analysis of the sample distributions. We then give: (i) the average, which is influenced by the outliers of the distribution; (ii) the median, which is not affected by the outliers of the distribution and which divides the sample into two: 50% of the groups have a ratio lower than the median, 50% of the groups have a ratio higher than the median; (iii) the first quartile: 25% of the groups have a ratio lower than the first quartile, 75% of the groups have a ratio higher than the first quartile; iv) the third quartile: 75% of the groups have a ratio lower than the third quartile, 25% have a ratio higher than the third quartile.

Our sample includes notably CAC 40 groups such as Total, Vinci, Air Liquide, Orange, Engie, Safran, Unibail-Rodamco, Michelin, Legrand, Capgemini, Carrefour, Valeo, Publicis, Atos, Bouygues, Accorhôtels, Technipfmc; and the non-CAC 40 groups Auchan, Saint-Gobain, Dassault Aviation, Eiffage, Groupe Adeo, Rexel, Icade, Iliad, Lagardère, Seb, Korian, etc.

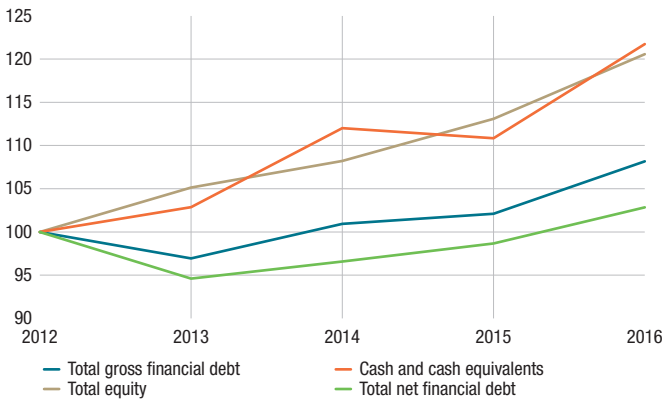
observe that the mean and the median of the net leverage ratio are moving closer in the sample, showing a decrease in outliers. For instance in 2016, the average net leverage ratio dropped to its lowest level since 2012, at 44.3% (compared to a five-year average of 72.6%).

Equity increased faster than debt

The decline in the net leverage ratios observed since 2012 can be attributed to the growth in total equity, which increased by 20.6% over the 2012-16 period for the sample as a whole, against 8.2% for gross financial debt and 2.8% for net debt (see Chart 3).

C3 Total equity, total financial debt and cash

(%, 100 = 2012).



Source: Banque de France – FIBEN database (consolidated financial statements collected up to August 2017).
Scope: See Box 1.
Note: Aggregate data.

Box 2

Impact of goodwill on equity

According to Commission Regulation (EC) No 495/2009 of 3 June 2009 regarding International Financial Reporting Standard (IFRS) 3 amended in 2008, "goodwill is an asset representing the future economic benefits arising from other assets acquired in a business combination that are not individually identified and separately recognised" and "an asset is identifiable if it is separable, i.e. capable of being separated or divided from the entity and sold, transferred, licensed, rented or exchanged, […] or arises from contractual or other legal rights, […]".

According to International Accounting Standard IAS 38 – Intangible Assets, items such as customer lists or brands do not meet the definition of an intangible asset. If these items are acquired as part of a business combination, they form part of the amount attributed to the goodwill recognised at the acquisition date.

When a subsidiary is acquired, the goodwill is measured as the difference between the consideration transferred to acquire the shares in the subsidiary – which is recorded as an asset in the acquirer's pre-consolidation balance sheet – and the fair value of the subsidiary after revaluation of the acquired assets– which is recorded as an asset in the group's post-consolidation balance sheet.

IAS 36 – Impairment of Assets, states that goodwill should be tested for impairment annually. If the carrying amount of a cash-generating unit to which goodwill is allocated exceeds the recoverable amount of the unit, the entity must recognise an impairment loss. This affects consolidated profit or loss and ultimately the group's equity. Moreover, IAS 36 stipulates that an impairment loss for goodwill must not be reversed in future periods. Any recognition of an impairment loss for goodwill therefore results in an irreversible reduction in the group's equity.

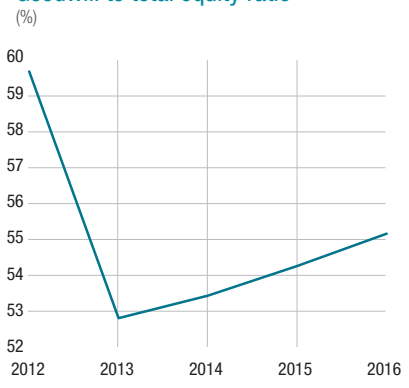
Conversely, according to IAS 36, if the recoverable amount of the unit exceeds the carrying amount of the unit, the unit and the goodwill allocated to that unit should simply be considered as not impaired.

All groups under review saw strong equity growth between 2012 and 2016: indeed, the median total equity growth rate was 28.0% over the period, whereas that of net financial debt was 0.2%.

Moreover, the value of equity does not appear to be significantly impacted by goodwill revaluations (see Box 2).

In aggregate terms, the rise in the goodwill to total equity ratio since 2013 remains moderate: the average goodwill to total equity ratio weighted by the relative share of each group in the total equity of the sample as a whole remains, in 2016, below the level reached in 2012 (55.1% in 2016, against 59.6% in 2012 – see Chart 4).

C4 Goodwill to total equity ratio



Source: Banque de France – FIBEN database (consolidated financial statements collected up to August 2017).
Scope: See Box 1.

In addition, the average goodwill to total equity ratio fell to a five-year low in 2016 to stand at 52.5% (against 64.0% on average since 2012), thus moving closer to the median value that has remained stable at around 42.7% (see Chart 5).

This leads us to assess the factors contributing to equity growth. Does it stem from internal funds or increased shareholder contributions? (See Box 3).

Furthermore, against the backdrop of equity growth, the groups maintained a high ratio of cash and cash equivalents to equity, even though in 2016 the outliers of this ratio declined compared with the peak of this period, reached in 2015. The median ratio is also gradually returning to its 2012 level (see Chart 6).

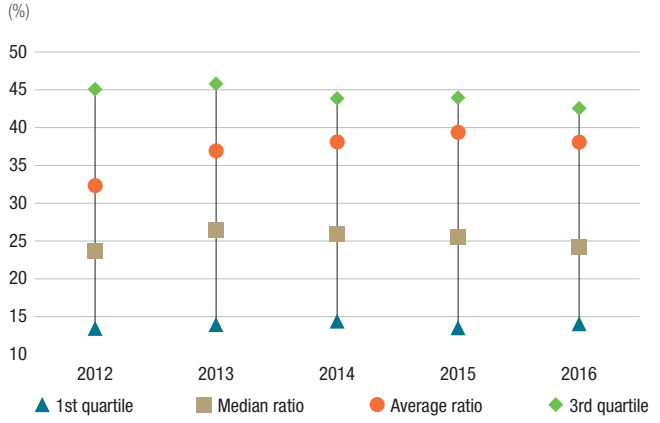
The decrease in the leverage ratios of the major groups can therefore be attributed to the fact that debt grew more slowly than equity. Equity growth is mainly due to ever greater capital increases, and higher earnings in 2014 and 2016. We can thus conclude that the improvement in the solvency of the groups under review was due to their stronger equity position, due to both external (capital increases) and internal (profit or loss) factors. This conclusion may change in the event of goodwill impairment, which would then reduce the level of equity.

Nevertheless, equity is only used to repay debt in the event of bankruptcy, which constitutes an outlier in terms of risk. Debt is therefore not only measured by the debt to equity ratio but above all by the group's ability to repay its debt using the flows it generates. For instance, a group that is heavily indebted vis-à-vis the flows it generates has weaknesses that affect its value. Indeed, such a group may in practice have to scale back its R&D, maintenance, training or marketing activities in order to meet debt repayments, and may encounter difficulties in finding new resources that enable it to finance investment projects, which are vital for maintaining or improving economic profitability. This type of group may also be more exposed to the impact of interest rate hikes.

C5 Distribution of goodwill to total equity ratio

Source: Banque de France – FIBEN database (consolidated financial statements collected up to August 2017).
Scope: See Box 1.

C6 Distribution of cash and cash equivalents to total equity ratio



Source: Banque de France – FIBEN database (consolidated financial statements collected up to August 2017).
Scope: See Box 1.

Box 3

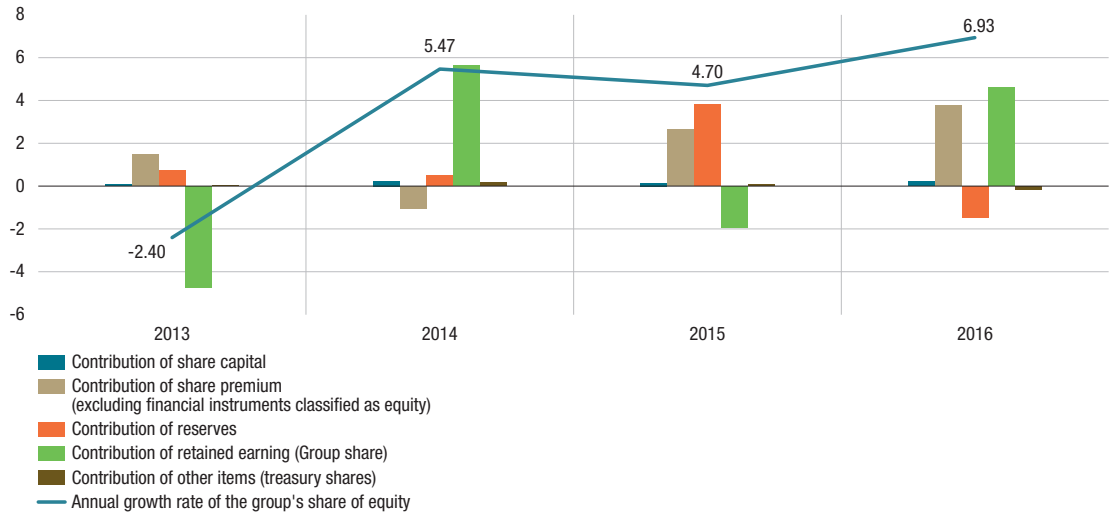
Factors contributing to growth in the group's share of equity

Total group equity aggregates the group's share of equity as the majority shareholder as well as the share held by non-controlling interests. The latter correspond to the sum of share capital,[1] share premium[2] (excluding financial instruments classified as equity), other reserves and retained earnings (Group share) minus treasury shares. The contribution of each of these components to the growth rate of the group's share of equity can be calculated using a smaller sample size than the reference sample due to the granularity of the required data (see Chart).

Results show that the contribution of retained earnings was significant in 2014 and 2016, though uneven. Furthermore, in a low interest rate environment, investors search for yield on equity markets encourages capital increases, which have risen sharply since 2015.

Contribution of share capital, share premium, reserves and retained earnings (Group share) to growth in the group's share of equity

(%)



Source: Banque de France – FIBEN database (Consolidated financial statements collected up to August 2017).
Scope: Balanced sample of 194 groups consolidated at the highest level.
Note: Aggregate data.
Key: In 2016, growth in earnings (Group share) accounted for 4.6% of the 6.9% growth in the group's share of equity, given the share of earnings in the group's share of equity in 2015.

1 Share capital corresponds to group shares measured at par for those issued initially. New shares issued at a later stage are recorded at the par value of the initial shares. The difference between par value and the price they were sold for corresponds to the share premium.

2 Note that new shares are issued either at par value or par value plus a share premium. The share premium (i) covers the expenses associated with the transaction, and (ii) puts the new and old shareholders on equal terms, as the new shareholders acquire rights to the reserves established prior to their investment or to capital gains on assets.

2. Operating cash flow tended to rise more slowly than net debt

The net debt to recurring operating cash flow ratio[3] is used to measure groups' debt repayment ability. It indicates the time (in number of years) necessary to repay net financial debt, assuming that all recurring operating cash flow remains stable and is used for this repayment.

Insufficient growth in operating cash flow impacts groups' repayment ability

The risks associated with groups' insufficient debt repayment ability increased slightly. Indeed, in the sample, outliers showing the number of years necessary to repay net financial debt increased: in the 2015-16 period, the repayment ability of one-quarter of the groups rose from 3.8 to 4.2 years (see Chart 7). The median ratio was almost stable, but has seen a slight increase since 2014.

Over the 2015-16 period, the operating cash flow of all groups under review rose by 2.6%, while net financial debt grew by 4.2% (aggregate sample data). The fact that net debt rose more than operating cash flow means that there was a relative deterioration in the groups' repayment ability.

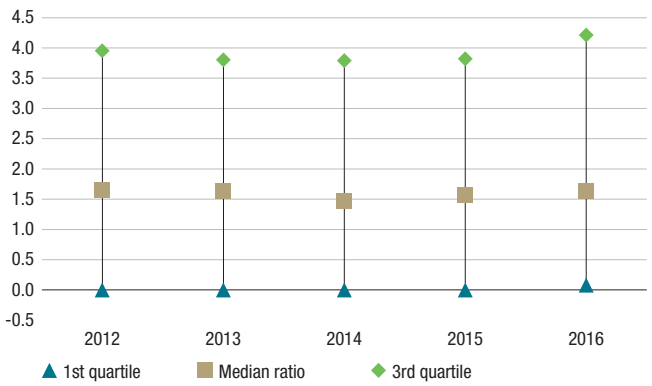
The major groups' debt levels made it difficult for them to increase value added

A net debt level can be considered efficient if it allows a group to finance investments that lead to an increase in future income. One way to measure this efficiency is by using the net financial debt to value added ratio. Moreover, this ratio is similar, at the microeconomic level, to the macroeconomic debt-to-GDP ratio.

We observe a fall in the average ratio of net financial debt to value added from 96.7% in 2015 to 94.1% in 2016, but a rise in the same ratio for a quarter of the groups from 81.7% in 2015 to 87.7% in 2016, which was its highest level since 2012 (see Chart 8). Thus, for the quarter of the groups whose debt appears the most inefficient in terms of value added, this inefficiency was further exacerbated.

C7 Distribution of the net financial debt to recurring operating cash flow ratio

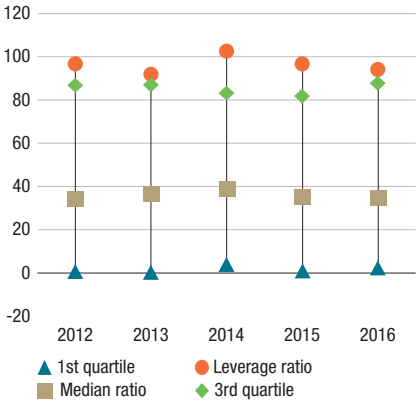
(%)



Source: Banque de France – FIBEN database (consolidated financial statements collected up to August 2017).
Scope: See Box 1.

C8 Distribution of the net financial debt to value added ratio

(%)



Source: Banque de France – FIBEN database (consolidated financial statements collected up to August 2017).
Scope: See Box 1.

3 Recurring operating cash flow aggregates here: (i) two-thirds of profit from ordinary activities before tax or all loss from ordinary activities before tax; (ii) net allocations to impairment and operating provisions; (iii) expenses related to stock options; (iv) the recurring operating cash flow of companies wrongly excluded from the scope and (v) dividends received (according to the analysis).

3. Net financial debt was used more to finance investment in acquisitions than investment in tangible and intangible assets

Investment has risen since 2012

In order to assess the rate of investment, we use the investment to value added ratio, which allows us to compare changes in this ratio with those of the financial debt to value added ratio.

Using aggregate data, the averages of the net financial debt to value added and total investment to value added ratios, weighted by the relative share of each group in the total value added of all groups in the sample, have followed the same trends since 2013, with a variation of around five points in both cases between 2013 and 2016 (see Chart 9).

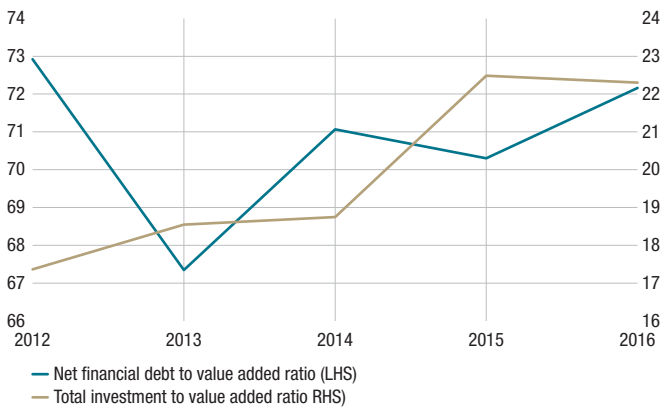
For the purposes of this study, total investment is considered to include tangible and intangible investment, financial investment (unconsolidated securities) and investment leading to a change in scope[4] (investment in acquisitions). In order to assess the contribution of each of these factors to total investment growth, we have to study a sub-sample[5] of the groups in the reference sample, for which the more granular data required here are available.

In 2016, investment in acquisitions rose, financed by long-term debt

Based on aggregate sub-sample data, the relative share of tangible and intangible investment in total investment fell from 99.6% to 79.0% over the review period, whereas over the same period the relative share of investment in acquisitions rose from 2.5% to 9.8%. In 2015, the growth in total investment was therefore mainly due to investment in acquisitions: out of the 24.5% of these groups' total investment growth in 2015, 13.3% can be attributed to investment leading to a change in scope, against 7.1% to tangible and intangible investment. In 2016, only investment

C9 Net financial debt and total investment to value added ratio

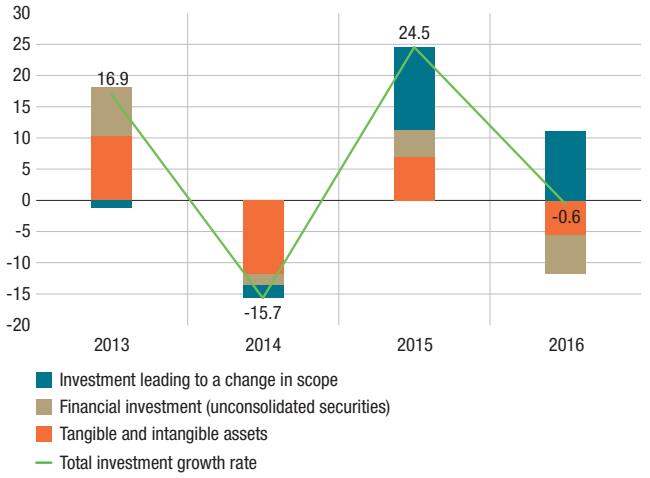
(%)



Source: Banque de France – FIBEN database (consolidated financial statements collected up to August 2017).
Scope: See Box 1.
Note: Curves represent the average net financial debt and net investment to value added ratios, weighted by the relative share of each group in the total value added of all groups in the sample.

C10 Contribution of investment by component to growth

(%)

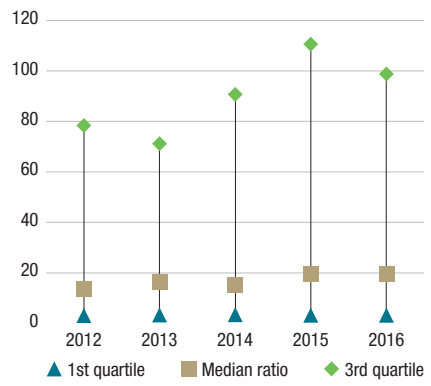


Source: Banque de France – FIBEN database (consolidated financial statements collected up to August 2017).
Scope: Balanced sample of 153 groups that prepare their financial statements in accordance with IFRS including 17 CAC 40 groups.
Note: Aggregate data.

4 Investment leading to a change in scope corresponds to the balance of acquisitions and divestments of companies under majority or sole control, or at least corresponding to a minimum of 40% of the voting rights in the absence of another larger shareholder.

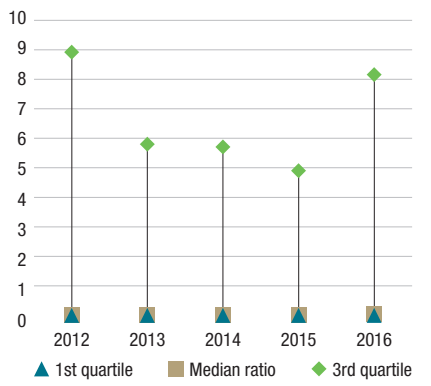
5 Balanced sample from 2012 to 2016 comprising 153 groups (including 17 CAC 40 groups in the reference sample).

C11 Tangible and intangible investment
(EUR millions)



Source: Banque de France – FIBEN database (consolidated financial statements collected up to August 2017).
Scope: Balanced sample of 153 groups that prepare their financial statements in accordance with IFRS including 17 CAC 40 groups.

C12 Investment in acquisitions
(EUR millions)



Source: Banque de France – FIBEN database (consolidated financial statements collected up to August 2017).
Scope: Balanced sample of 153 groups that prepare their financial statements in accordance with IFRS including 17 CAC 40 groups.

in acquisitions made a positive contribution (11.1%), while that of tangible and intangible investment was negative, which resulted in a slight 0.6% decline in total investment (see Chart 10).

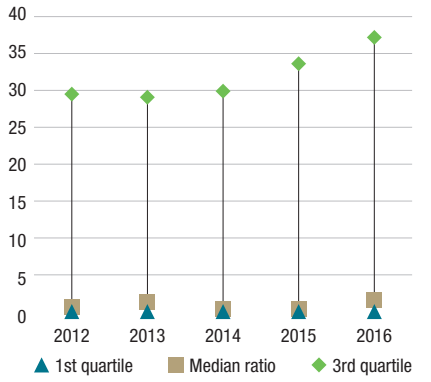
In 2016, tangible and intangible investment fell by 10.7% for the quarter of the groups under review investing the most; this decline was partially offset by the 1.5% increase in median tangible and intangible investment (see Chart 11). Conversely, investment in acquisitions increased by 66.5% year-on-year for the quarter of the groups in the sample that were most active in this area (see Chart 12).

Between 2014 and 2016, the relative share of investment in acquisitions in total investment rose for a quarter of the groups under review, from 29.9% to 37.2% (see Chart 13).

Furthermore, for this sub-sample, tangible and intangible investment does not appear to be strongly related in 2016 to new long-term debt (see Chart 14a). However, it is closely linked to operating cash flow (see Chart 14b).

Conversely, in 2016, investment in acquisitions appears to be fairly closely linked to the increase in new long-term financial debt[6] (see Chart 15a), but hardly at all linked to operating cash flow (see Chart 15b).

C13 Relative share of investment in acquisitions in total investment
(%)

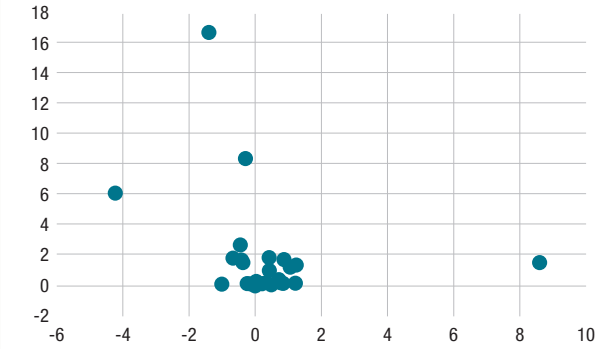


Source: Banque de France – FIBEN database (consolidated financial statements collected up to August 2017).
Scope: Balanced sample of 153 groups that prepare their financial statements in accordance with IFRS including 17 CAC 40 groups.

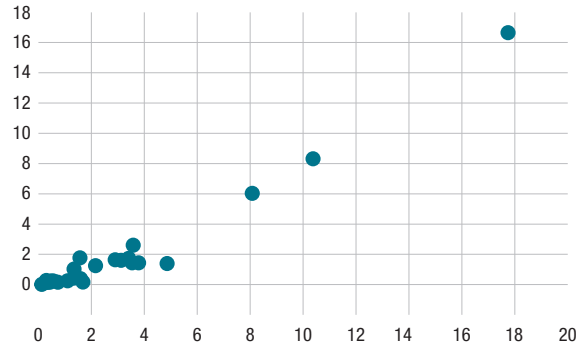
6 New long-term financial debt represents year-on-year changes in long-term financial debt

C14 Tangible and intangible investment and financing
(EUR billions)

a) Link to new long-term financial debt



b) Link to recurring operating cash flow

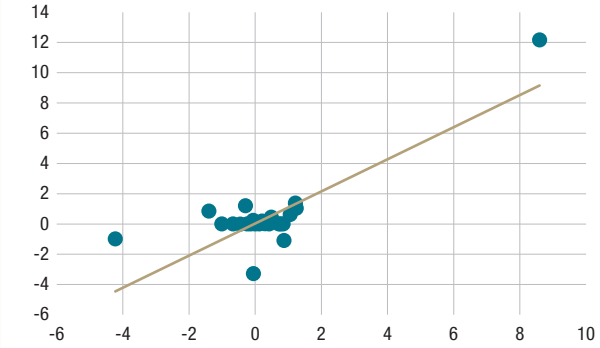


Y-axis: a) new long-term financial debt and b) recurring operating cash flow; X-axis: tangible and intangible investment.

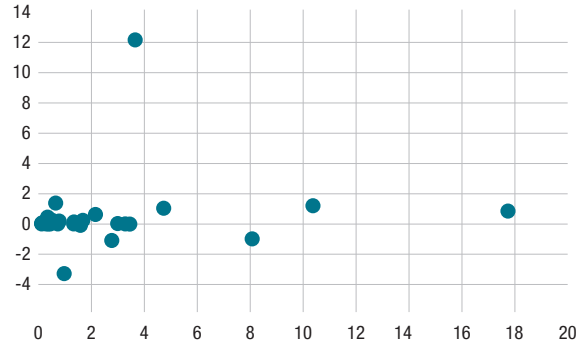
Source: Banque de France – FIBEN database (consolidated financial statements collected up to August 2017).
Scope: Balanced sample of 153 groups that prepare their financial statements in accordance with IFRS including 17 CAC 40 groups.

C15 Investment in acquisitions and financing
(EUR billions)

a) Link to new long-term financial debt



b) Link to recurring operating cash flow



Y-axis: a) new long-term financial debt and b) recurring operating cash flow; X-axis: investment in acquisitions.

Source: Banque de France – FIBEN database (consolidated financial statements collected up to August 2017).
Scope: Balanced sample of 153 groups that prepare their financial statements in accordance with IFRS including 17 CAC 40 groups.

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