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A growing share of investment funds in the financial investments of insurers established in France in 2017

At end-2017, investments by French insurers amounted to EUR 2,628 billion, up 3.3% compared to 2016. The allocation of their assets is fairly stable from one year to the next, both from a geographical and a sectoral perspective. The share of investments aimed at the financing of non-financial corporations stood at 24%, i.e. EUR 618 billion, and 13.5%, i.e. EUR 355 billion, if we consider only companies established in France, after taking into account investments made indirectly by investment funds. Equity contributions to non-financial corporations established in France represented 5% of total investments, i.e. EUR 132 billion. While the financing provided to companies was significant in terms of amount, it continues to occupy a secondary position in relation to the overall investment capacity of the insurance sector.

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G22

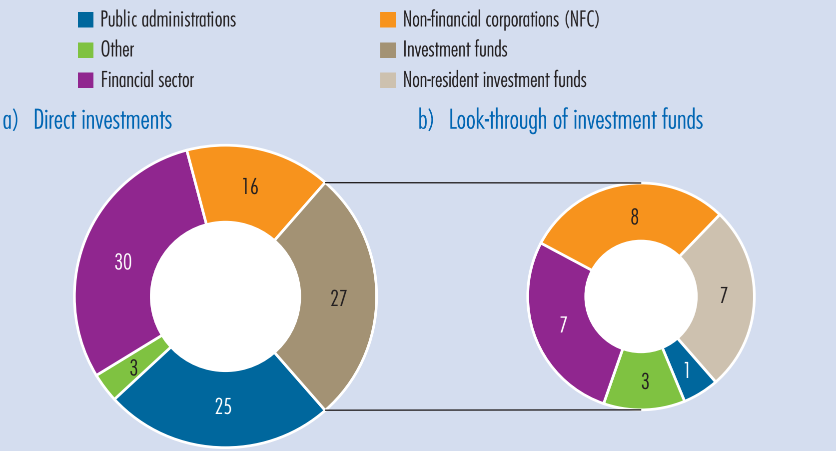
35%
share of French insurers in the investments of euro area insurers

€ 618 billion
direct and indirect financing provided by insurers to NFCs

€ 250 billion
amount invested in sectors that are sensitive to the risk of energy transition

€ 56 billion
net acquisitions of investment fund shares by insurers in 2017

Sectoral breakdown of insurers' investments at end-2017
(%)



Sources: ACPR, Banque de France; Solvency II 2017 annual submissions.
Note: Before applying the look-through approach, investment fund shares are isolated. The look-through approach is only applied to resident investment funds for lack of data on the portfolios of foreign investment funds.

1 Direct holdings of French insurers at end-2017

Investments are mainly focused on interest rate products, with an increasing share of investment funds

At end-2017, insurers established in France and subject to Solvency II, whose investments at market value amounted to EUR 2,628 billion, held 35% of the assets managed by euro area insurers. France is thus the largest market in the euro area. Life insurance predominates: 91% of assets are held by life and mixed insurers.

While the amount of investments was up 3.3% in 2017, the overall portfolio structure of French insurers subject to Solvency II has remained fairly stable over time. Bonds still account for the lion's share (60%) of insurers' assets, in particular those of life and mixed insurers.

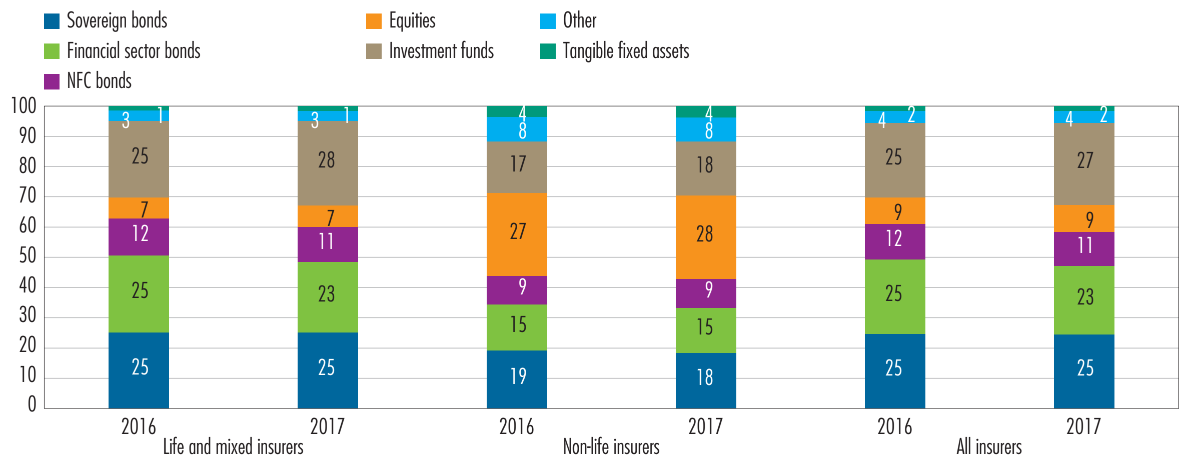
In 2017, however, life and mixed insurers invested an increasing share of their assets in investment fund shares (up 2.7 points in 2017), at the expense of interest rate products (down 2.8 points in 2017). They maintained the overall breakdown of their assets between the public, financial and non-financial sectors. However, the relative share of financial and non-financial corporate bonds decreased slightly between 2016 and 2017.

The share of bonds was lower in the portfolios of non-life insurers (42%, compared with 60% for life and mixed insurers). Since most of the non-life insurance business consists of short-term commitments (annual renewal contracts and quick-compensation guarantees, except for casualty insurance and some niche activities), asset allocation is more diversified, more focused on investment fund shares, equities and tangible fixed assets. In particular, the share of equities is four times higher for non-life insurers than for life and mixed insurers.

Unit-linked contracts are heavily invested in equities

Life and mixed insurers make different investments depending on the nature of the policies. For example, the assets backed by unit-linked policies, in which policyholders bear the market risk, are more widely invested in investment funds and are more exposed, via

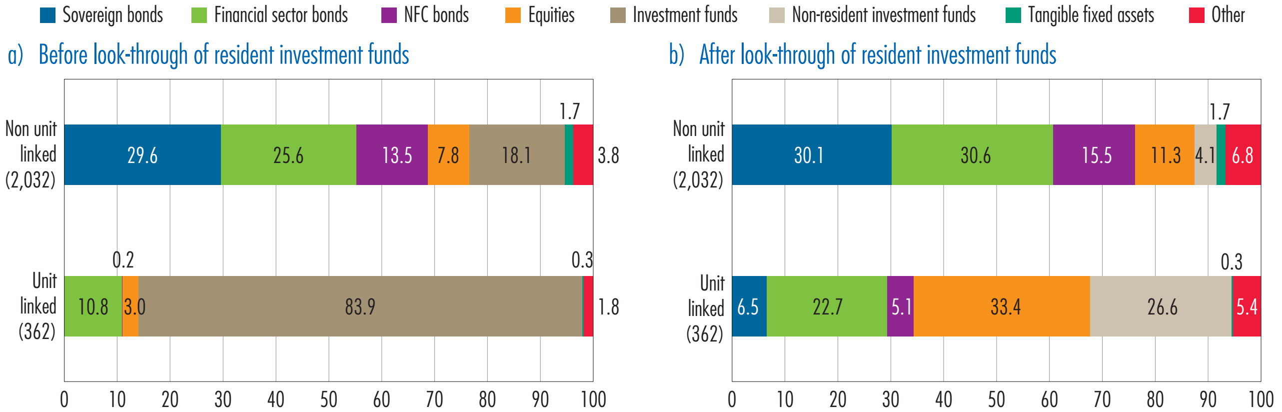
C1 Breakdown of insurers' investments by type of activity and by nature of securities, at end-2016 and end-2017, at market value
(%)



Sources: ACPR, Banque de France; Solvency II 2017 annual submissions.
Scope: Before look-through of resident investment funds.
Note: The breakdown of insurers by type of activity (life/mixed or non-life) results from the reported authorisation in the Solvency II submissions. Reinsurers are classified either under life and mixed insurers or under non-life insurers, depending on their activity. Of reinsurers' total investments, 13% correspond to non-life insurance, the rest to life and mixed insurance.

C2 Breakdown of life and mixed insurers' investments at end-2017
Distinction made between unit-linked and non-unit linked

(%; in brackets: amounts in EUR billions)



Sources: ACPR, Banque de France; Solvency II 2017 annual submissions, to which the look-through approach has been applied on the basis of the Banque de France's "investment fund" collection.
Note: After application of the look-through approach, the remaining assets of resident investment funds to which the look-through approach could not be applied are placed in the "Other" category. In the article published in the Banque de France Bulletin at end-2017, these assets had been placed in the "non-resident investment funds" category, making it impossible to assess the share of foreign investment funds stricto sensu in the balance sheet of insurers.

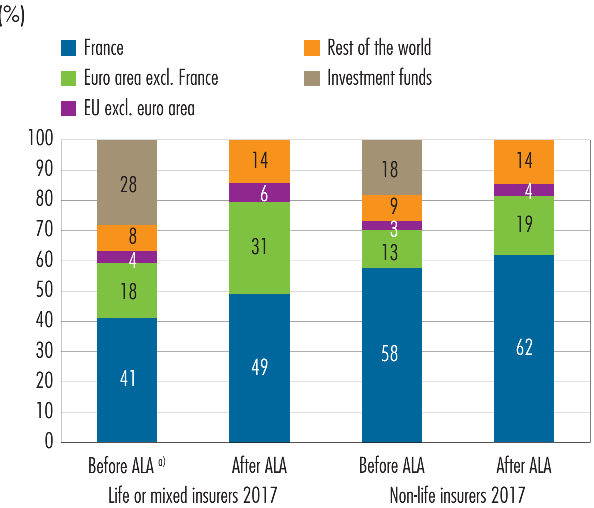
these investment funds, to equity risk (see Chart 2). Conversely, given the capital guarantee attached to euro-denominated contracts, insurers select investments that are redeemable and have less volatile valuations for their general funds, with bonds making up 76% of the total. In 2017, the (non-unit linked) general fund slightly increased its share invested in equities (up 0.6 percentage point) and in sovereign bonds (up 0.3 point) to the detriment of financial sector bonds (down 0.9 percentage point) and those of non-financial corporations (down 0.2 point). The unit-linked funds saw a decline in the share of foreign funds held in the portfolio (down 4.5 points) in favour of French funds (up 3.4 points).

Investments are mainly focused on France and the euro area

Like the nature of investments, the geographical distribution of insurers' portfolio was very stable in 2017: French insurers invested mainly in France and the euro area. This was particularly the case for non-life insurers, with 81% of their assets invested in France and the euro area, taking into account securities held through investment funds. In 2017, the trend was nevertheless towards greater international diversification: investments (excluding securities held through investment funds) made outside the European Union increased from EUR 190 to EUR 223 billion. This observation is amplified by taking into account investments made through investment funds, after applying the look-through approach (see appendix).

C3 Breakdown of insurers' investments according to their activity by issuing area, before and after application of the look-through approach to resident investment funds, at end-2017

(%)



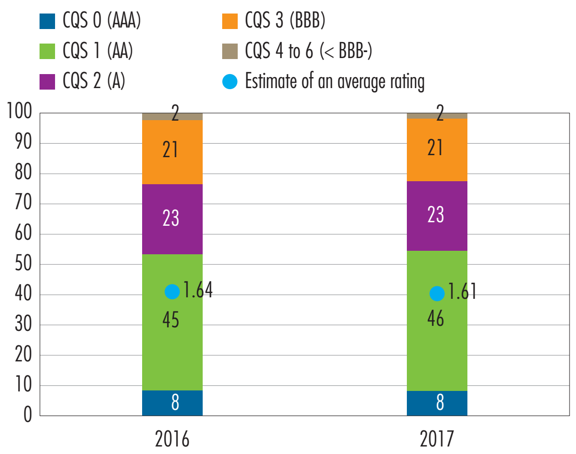
Sources: ACPR, Banque de France; Solvency II 2017 annual submissions.
a) Application of the look-through approach.

High-quality redeemable securities

As French insurers mostly invest in securities considered as safe, with a rating of AA or above, the distribution showed no significant change between 2016 and 2017.

C4 Bond ratings at end-2016 and end-2017

(%)



Sources: ACPR, Banque de France; Solvency II 2017 annual submissions.
Note: The absolute value of the average rating calculated for each year has no intrinsic meaning and must be interpreted in terms of its variation. After assigning an arbitrary value to each Credit Quality Step (CQS, from 0 to 3 up to CQS3 and 4 from CQS4 to CQS6), the indicator is calculated as the average rating weighted by the amounts invested by insurers.

Unrealised capital gains amount to 15% of investments

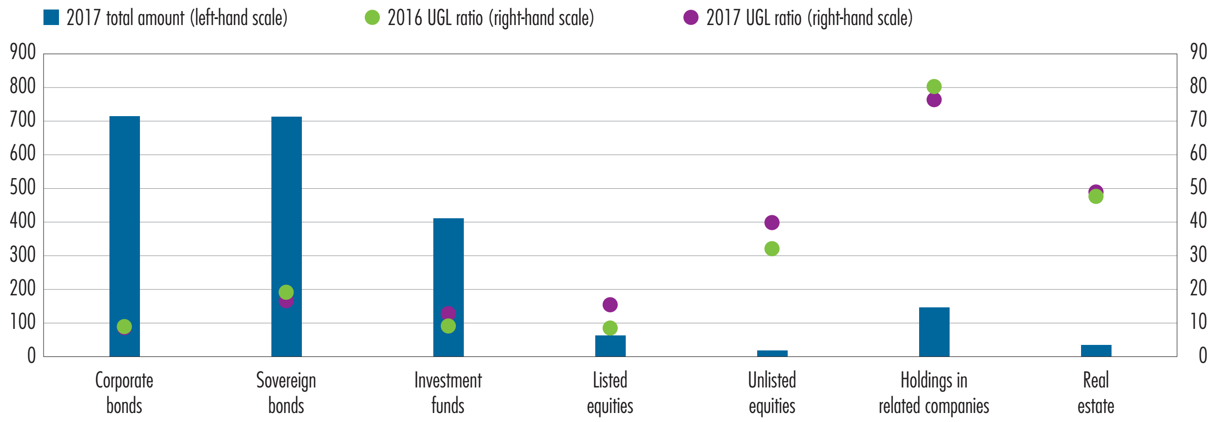
In a context of very low interest rates since 2014 and improved stock market indices since the 2008 and 2011 crises, the ratio of unrealised gains has been at a very high level since 2008, at about 15% for all investments. However, the ratio of unrealised gains from bond holdings fell between 2016 and 2017, in particular for sovereign bonds (down 2.6 points).

The decrease in unrealised gains on bonds is due to the combination of several factors. Firstly, year-on-year rates picked up slightly, with the French government's 10-year bond rate rising from 0.682% to 0.785%. Secondly, insurers reinvested the proceeds of old bonds maturing in 2017 into new bonds with much lower coupon yields. Finally, the maturity of the remaining bonds with high coupon yields declined.

Conversely, while equities made up only 9% of insurers' portfolio, unrealised gains on this asset class rose sharply in 2017 (up 20%, compared to 13% in 2016). This increase is attributable to the good performance of stock markets in 2017, with the main indices climbing over the year (up 9.26% for the CAC 40, up 19.90% for the S&P 500 US and up 6.60% for the EuroStoxx 50).

C5 Amount of main investments at end-2017 and ratio of unrealised gains and losses (UGL) at end-2016 and end-2017

(amounts in EUR billions and rates in %)



Sources: ACPR, Banque de France; Solvency II 2017 annual submissions.

2 Trends observed in insurers' asset portfolios

Investment funds represent a growing share of insurers' investments

Investment flows in investment fund shares totalled EUR 56 billion in 2017, well above the medium-term average (i.e. an annual average of EUR 16 billion since 2009). The growth in outstandings linked to the valuation effect amounted to EUR 26 billion. The proportion of investment fund shares in French insurers' investments increased from 25% to 27% over the year.

This flow analysis shows that insurers use investment funds to diversify their investments beyond government securities. Indeed, insurers mostly directly hold (see Chart 7a) securities issued by the financial sector (30%), investment funds (27%), public administrations (25%) and non-financial corporations (16%).

Applying the look-through approach (see Chart 7b) to investments held through investment funds increases the predominance of the financial sector in the final exposure of French insurers, because investments held through investment funds are concentrated in non-financial corporations (29%) and the financial sector (27%). Conversely, they focus very little on public administrations (5%). In addition, the 26% of non-resident investment funds cannot be broken down.

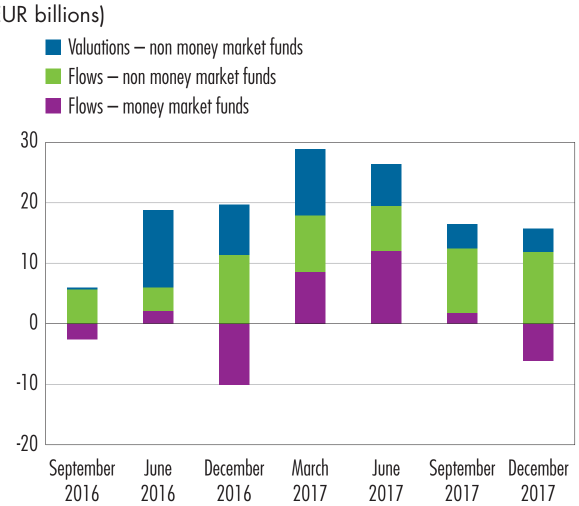
While they reduce their direct holdings of financial sector debt securities and, to a lesser extent, those of non-financial corporations, insurers continue to be net purchasers of bond and mixed funds. Thus, in 2017, the negative net flow of financial sector bonds (EUR – 27 billion) were accompanied by a net purchases flow of government bonds (EUR + 22 billion) and bond and mixed fund shares (mostly French, EUR + 20 billion). In addition to the diversification strategy noted above, investment flows in bond and mixed fund shares could suggest that asset management is gradually being outsourced (see Chart 8 below).

A rise in equity investments

Net direct equity investment flows (shares and other equity) amounted to EUR 16 billion over two years, of which EUR 18 billion in unlisted securities (EUR 12 billion in unlisted equities and EUR 6 billion in other equity) and EUR - 2 billion in listed equities.

C6 Flows and valuation effects associated with investment fund shares held by insurers

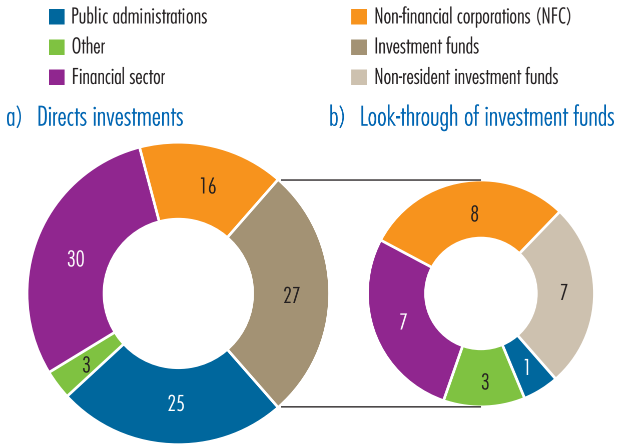
(EUR billions)



Sources: ACPR, Banque de France; Solvency II 2017 annual submissions.
Note: The valuation effects of money market funds (negligible) and reclassifications are not shown.

C7 Sectoral breakdown of insurers' investments at end-2017

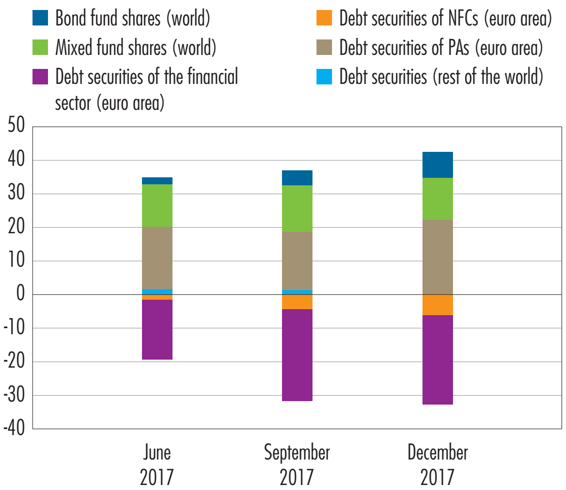
(%)



Sources: ACPR, Banque de France; Solvency II 2017 annual submissions.
Note: Before applying the look-through approach, investment fund shares are isolated. The look-through approach is only applied to resident investment funds for lack of data on the portfolios of foreign investment funds.

C8 Annual rolling flows of bond holdings and investment fund shares (with a bond component) held by insurers

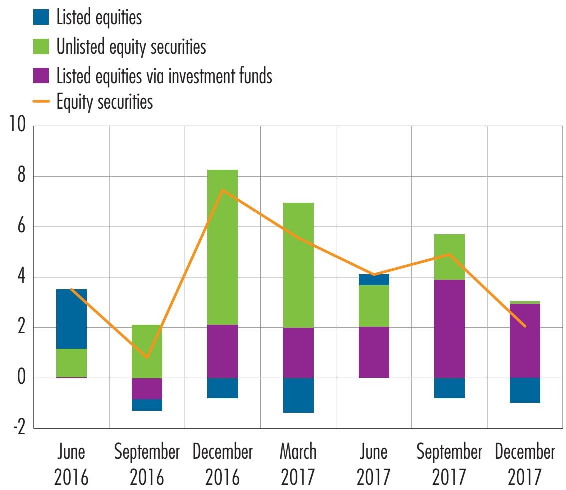
(EUR billions)



Sources: ACPR, Banque de France; Solvency II 2017 annual submissions.
Note: NFC for non-financial corporations and PA for public administrations.

C9 Breakdown of insurers' quarterly net equity investment flows

(EUR billions)



Sources: ACPR, Banque de France; Solvency II 2017 annual submissions.

However, in 2017, net flows to listed equities via equity and mixed funds were estimated at EUR 11 billion, i.e. more than the decline in direct holding flows. At end-2017, 26% of outstanding amounts of resident investment funds were invested in equities after application of the look-through approach. This share amounts to 36% for investments funds backed by unit-linked contracts and would represent approximately 50% of investments backed by unit-linked contracts, by applying to non-resident investment funds the breakdown of assets observed for resident investment funds.

After applying the look-through approach to French funds, equity contributions to French non-financial corporations amounted to EUR 132 billion, i.e. 5% of total investments. While in terms of amount the financing provided by the insurance sector to companies is significant, it still occupies a secondary position in relation to its overall investment capacity.

Infrastructure investments are still limited

Given their long-term commitments, insurers can be a particularly suitable source of financing for infrastructure investments, whose return on investment usually takes several years. In order to promote the development of these projects, an appropriate prudential treatment (in terms of the shock applied for the determination of the solvency capital requirement) is set out in Solvency II for eligible infrastructure investments, i.e. those that meet strict criteria (financial soundness of the project initiator, financial guarantee granted to the lenders, predictability of the cash flows generated by the project, etc.).

With EUR 46 billion invested at end-2017, France is one of the five European countries where insurers invest massively in infrastructure projects: these insurers account for more than 90% of total European investments in infrastructure.[1]

These investments represent less than 2% of French insurers' asset portfolio, of which only 13% are considered as eligible (i.e. EUR 6 billion), compared to 87% of non-eligible infrastructures (EUR 40 billion). At end-2017, these investments focused primarily on equity capital (36%), debt securities (31%) and investment fund shares (25%).

1 *EIOPA Financial Stability Report – June 2018 - https://eiopa.europa.eu/Publications/Reports/Financial_Stability_Report_Spring2018.pdf.*

3 Taking climate risk into account

Insurers' investments and transition risk

The Banque de France and the Autorité de contrôle prudentiel et de résolution (ACPR) are involved in national and international discussions on climate change. In 2018, they launched the Network for Greening the Financial System, whose objectives are to promote the exchange of experiences, to identify best practices, to contribute to the development of environmental and climate risk management in the financial sector and to mobilise mainstream finance in order to support the transition to a low-carbon economy. This international initiative also echoes the Act of 17 August 2015 on environmental transition and green growth. Pursuant to Article 173, insurers are required to disclose information on the manner in which they take into account the risks related to climate change. In view of this requirement, it is possible to conduct an analysis based on the identification of the level of exposure of insurers' investment portfolios to these risks.

For the insurance sector, there is now a consensus on the multiple dimensions of climate risk. This risk is likely to affect insurers via the insurance risks that they bear but also via the valuation of their financial investments:

• physical risks, resulting from damages to insured property directly caused by weather and climate phenomena;

• transition risks, resulting from sudden or insufficiently anticipated adjustments to the valuation of investments made in the wake of a political transition towards a low-carbon economy.

As regards transition risk, Battiston et al. (2017)[2] identified the sectors that are specifically vulnerable to transition risks: the fossil fuel, electricity, gas and water producing sectors (utilities) and the energy consuming sectors (housing, energy, energy intensive sectors, transport). This list was drawn up from a variety of sources, in particular Eurostat to identify the sectors that produce the most greenhouse gases and the European Commission (2014)[3] to identify those most affected by the introduction of carbon pricing.

By applying this methodology to French insurers' investments based on their NACE[4] codes, it is possible to assess their exposure to transition risk:[5] in 2017, EUR 250 billion were invested in sectors defined as sensitive to transition risk, i.e. 10% of the total portfolio. This amount is roughly equal to that measured in 2016 (up 0.87% year-on-year). However, given the increase in insurers' assets in 2017, the share of these exposures was slightly down, both before and after application of the look-through approach (see Chart 10). The differences are thus not significant enough to conclude that insurers' investment strategies in terms of energy transition have changed.

Among the sectors identified as sensitive to transition risk, French insurers are primarily exposed to real estate (33% of total exposures): all tangible fixed assets (EUR 43 billion) and bonds issued for real estate activities fall into this category.

Insurers are also heavily exposed to high energy intensive sectors (excluding transport, 33% in 2017, compared to 29% in 2016), via equities and equivalent securities (58% of exposures to energy intensive sectors in 2017) and non-financial corporate bonds (29%).

Exposures to the electricity, gas and water supply sectors (14% of total exposures) mainly consist of bonds issued by public agencies involved in activities with a climate risk. Fossil fuels and transport account for respectively 12% and 9% of exposures to energy transition risk, mainly via non-financial corporate bonds for the latter.

2 Battiston, Mandel., Monasterolo, Schütze and Visentin (2017), "A climate stress test of the financial system", *Nature Climate Change*, Vol. 7(4).

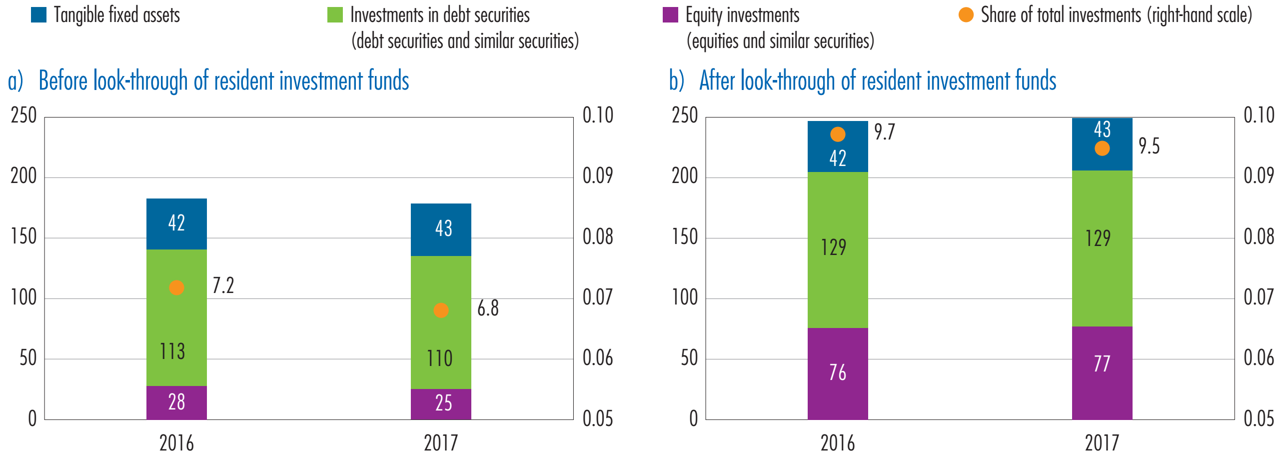
3 2014/746/EU: Commission Decision of 27 October 2014 determining, pursuant to Directive 2003/87/EC of the European Parliament and of the Council, a list of sectors and subsectors.

4 Statistical classification of economic activities in the European Community. The estimates are dependent in particular on the codes assigned to the holding companies of the major groups, which act as issuers in the markets on behalf of subsidiaries.

5 *Analyses et Synthèses* No. 91 entitled "L'exposition des assureurs français au risque de changement climatique: une première approche par les investissements financiers" (The exposure of French insurers to the risk of climate change: a first approach through financial investments) develops a comprehensive analysis of the exposure of French insurers to the risk of energy transition at end-2016 and details the methodology of the study. This document is available on the ACPR's website: *https://acpr.banque-france.fr/sites/default/files/medias/documents/20180628_as_placements_risque_climat_vf1.pdf.*

C10 French insurers' exposure to energy transition risk

(volumes in EUR billions and shares in %)



Sources: ACPR, Banque de France; Solvency II 2017 annual submissions.

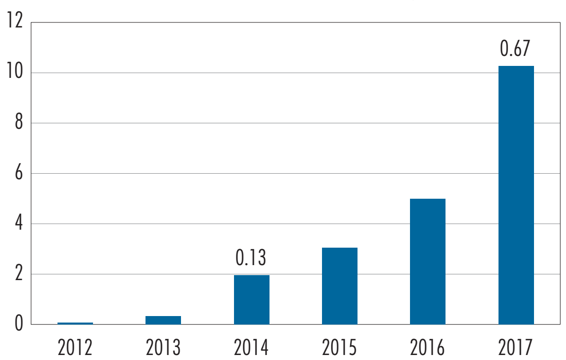
Insurers' investments in green bonds

At end-2017, green bonds[6] amounted to EUR 10.3 billion, i.e. 0.7% of insurers' bond investments. Their share has increased five-fold since 2014. These bonds mainly finance resident issuers (70%). In terms of the issuing sector, non-financial corporations account for half of outstanding amounts, while the French government alone accounts for one quarter of the green bond portfolio held by insurers.

At end-2017, the sectors that appear to have a major impact on energy transition according to the criteria defined by Battiston et al. accounted for one-third of outstanding amounts. However, the energy intensive sectors as defined by Battiston (mainly the manufacturing industry) are not represented in the issues acquired by insurers. At end-2017, 60% of insurance companies holding debt securities owned green bonds (253 out of 431 insurers holding debt securities) in relatively homogeneous proportions (between 0.6% and 0.9%), irrespective of the size of the insurer.

C11 Insurers' investments in green bonds

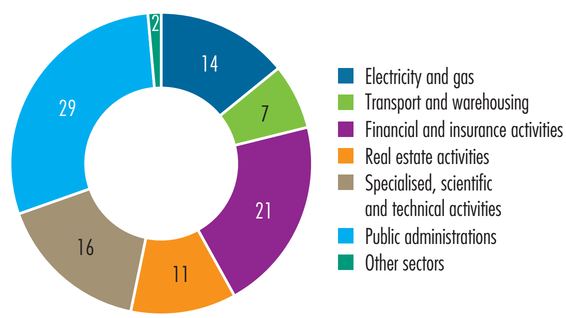
(amounts in EUR billions on left and shares in %)



Sources: ACPR, Banque de France; Solvency I and II 2017 annual submissions.

C12 Breakdown of outstanding amounts by nature of activity

(%)



Sources: ACPR, Banque de France; Solvency II 2017 annual submissions.

6 Green bonds are bonds issued for the purpose of financing environmental projects that contribute to the energy transition (renewable energies, energy efficiency, sustainable waste and water management, sustainable land use, clean transport and adjustments to climate change, etc.). However, there is still no certification that precisely defines the criteria for being referred to as green bonds.

Appendix
Methodology

Legal forms of insurers

Insurers have several legal forms:

• insurance companies and mutual insurance companies governed by the Insurance Code;

• the so-called "mutual 45" insurance companies governed by the Mutuality Code (Book II). They are steered by their members. They mainly insure health risk;

• provident institutions governed by the Social Security Code. Historically, provident institutions, which are joint governance structures, are specialised in group insurance (companies or professional branches).

Mutual insurance companies, "mutual 45" insurance companies and provident institutions are non-profit organisations. "Mutual 45" insurance companies and provident institutions primarily insure people.

Population covered by the study

The sample used in the 2017 study includes the 461 active insurers subject to Solvency II (essentially based on a balance sheet size criterion). At 31 December 2017, these 461 insurers held EUR 2,628 billion worth of investments at market value.

These insurers fall into two broad categories:

• life and mixed insurers that manage most euro-denominated contracts and all unit-linked contracts. Their commitments are essentially long-term;

• Non-life (or property and casualty) insurers that cover property damage, bodily injuries and civil liability. Their commitments are essentially short-term since they generally settle claims in less than two years, with some exceptions such as civil liability, surety and construction insurance.

Data

The reference closing date is 31 December 2017 and, unless otherwise stated, the investment data used are those from the so-called "list of assets" annual statements (S.06.02). The values of the investments are communicated according to the valuation approach required by the directive, i.e. essentially at market value. Quarterly closings are also used.

Look-through approach

The look-through approach is applied to investment fund shares held by insurers by exploiting Banque de France databases (mainly the data collection of investment funds). The final beneficiaries of the investments made can then be identified and the investment fund shares in the insurers' portfolios replaced by the securities in which these investment funds invest.

At the end of this process, over 74% of insurers' investments in investment fund shares were thus broken down between the different categories of underlying financial instruments. The remaining 26% correspond to non-resident investment funds.

Method for calculating flows

Flows, valuations and reclassifications effects are calculated from the data reported by the insurers in the detailed list of the assets (S.06.02) and additional data collected from the investment funds and other available databases (CSDB 1, etc.). The variation in outstanding amounts is broken down into flows (economic transactions), valuation effects (price effects) and reclassifications according to the following formula:

$\text{Outstandings}_t - \text{Outstandings}_{(t-1)} = \text{Flows}_t + \text{Valuations}_t + \text{Reclassifications}_t$

Flows, reclassifications and valuations are calculated for each security and then aggregated. The outliers (in terms of valuation and/or flows) resulting from the calculation are removed.

First, flows and reclassifications are calculated. Then, the valuation is calculated as the variation in the outstanding amount minus the flow and the reclassification.

For equities in euros, the formula for calculating flows is the following:

$\text{Flow}_t = [\text{Quantity}_t - \text{Quantity}_{(t-1)}] \times [\text{Price}_{(t-1)} + \text{Price}_t] / 2$

Where Quantity (t) is the quantity of equities held at time t and Price (t) the unit price at market value of the equity. For debt securities, flows are calculated by neutralising the accrued interest on securities sold, maturing or purchased, and adding interest income for all securities held at the end of the period under review. In addition, a negative flow may not only correspond to sales but also to the non-renewal of securities having reached maturity.

When a characteristic of a security changes (for example, its issuing sector), and in the absence of any corrections to previous outstanding amounts, the break in the series is managed via a reclassification.

Estimation of the flow of listed equities via investment funds

The net flow of investments in listed equities via investment funds is estimated by considering that the flow on equity funds is entirely invested in equities and that the flow on mixed funds is composed of 40% of equities (which corresponds to the result of the look-through approach applied to resident investment funds).

1 Eurosystem's *Centralised Securities DataBase.*

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