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In 2023, insurers and pension funds adapted to the new interest-rate environment

Following the rise in interest rates that began in 2022 and continued through the first three quarters of 2023, French insurers and pension funds invested more in interest rate products in 2023, through money market and bond collective investment undertakings (CIUs), and certain categories of debt securities.

Insurers endeavoured to guarantee a high level of asset liquidity while smoothing out market fluctuations. Thus, the revaluation rate paid to policyholders on euro-denominated life insurance policies increased significantly through the use of the provision for profit-sharing, and the rise in redemptions by policy-holders observed in 2023 was halted from the first half of 2024.

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G22

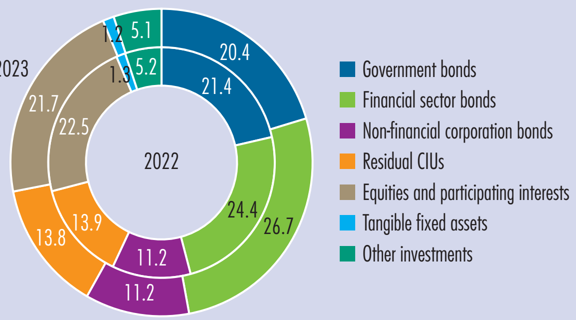
End 2023

EUR **2,848** billion
value of investments by French insurers and pension funds

58,2%
share of bonds in the investments of French insurers and pension funds

EUR **373** billion
value of "responsible" assets held

Investment structure of French insurers and pension funds, end 2022 and 2023
(as % of total investments)



Source: *Autorité de contrôle prudentiel et de résolution* (ACPR), Banque de France.
Note: CIU, collective investment undertaking.

BANQUE DE FRANCE
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1 Insurers and pension funds reinvested in fixed-income products in 2023

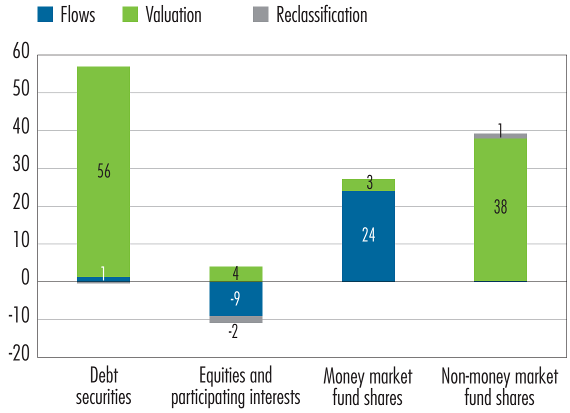
In 2023, the investments of insurers and pension funds regained a third of the value lost in 2022

At the end of 2023, the value of French insurers' and pension funds' investments totalled EUR 2,848 billion, with life insurers accounting for 78.0% of this amount and non-life insurers[1] 15.6%. Despite the approval of a new fund in 2023, the share of pension funds remained limited at 6.4% in 2023, after 6.3% in 2022.

Investment outstandings were up by 4.8% (i.e. EUR 132 billion) on 2022. This can essentially be explained – for EUR 100 billion – by positive valuation effects on all categories of portfolio instruments, which offset around 30% of the sharp devaluations observed in 2022[2] (EUR 342 billion). The bond portfolio increased by 4.3% (i.e. EUR 56 billion), thanks to the fall in interest rates at the end of the year, which enabled the 10-year OAT rate to end the year 55 basis points below the level recorded at the end of 2022.[3] Non-money market CIU shares/units also posted a year-on-year rise, climbing by 5% (i.e. EUR 38 billion), in line with stock market index trends (the CAC 40 rose by 16.5%).

Net investment flows in securities were more mixed. Overall, despite the rise in redemptions of life insurance policies (see section 2 below), insurers and pension funds recorded net acquisitions of EUR 16 billion in 2023. This net amount is the result of different dynamics: while net acquisitions of money market CIU shares/units amounted to EUR 24 billion, net sales of equities and participating interests totalled EUR 9 billion.

C1 Investment stock of French insurers and pension funds in 2023
(EUR billions)



Source: *Autorité de contrôle prudentiel et de résolution* (ACPR), Banque de France.
Note: CIU, collective investment undertaking.

In the new interest rate environment, insurers and pension funds redirected their investments towards interest rate products

As interest rates began to rise in 2022, insurers and pension funds stepped up their investments in interest rate products (debt securities, money market and bond CIUs),[4] and reduced their investments in equity products and financial real estate (equities and non-money market CIUs, except bond CIUs).

1 In this Bulletin article, life insurers include life and composite insurers, and non-life insurers also include reinsurers. See the definition of the study population in Appendix 2 "Methodology".

2 See *Banque de France Bulletin* No. 249/6, November-December: "En 2022, les effets de la hausse de taux maîtrisés grâce aux stratégies d'investissement des assureurs et fonds de pension" (in French only).

3 When interest rates fall, the price of fixed rate bonds rises. This is because a fall in interest rates means that the yield on newly-issued bonds is lower than that on older bonds. For this reason, the value of the latter on financial markets rises. This increase reduces their yield, since the acquisition cost of these securities is greater, while their remuneration and redemption value remain constant. The value continues to rise until the yield for investors equals market interest rates.

4 "Interest rate products" are financial instruments whose remuneration is linked to interest payments in exchange for capital lent. These include not only directly held debt securities, but also money market and bond CIUs, through which insurers and pension funds hold these securities indirectly.

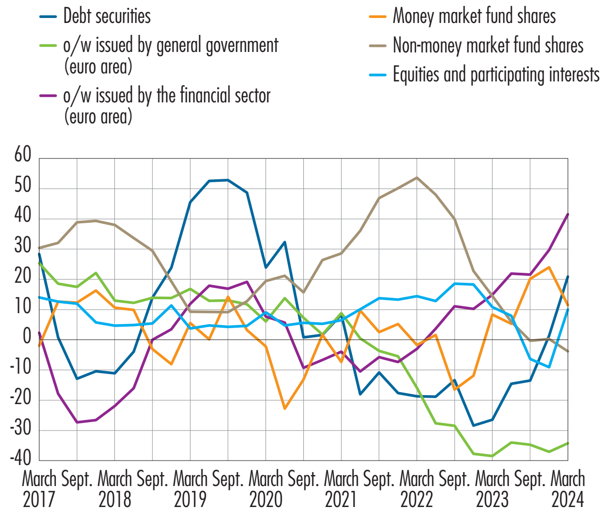
As regards interest rate products, 2023 was marked by a sharp upturn in investments in money market CIUs. While insurers and pension funds had recorded net sales[5] of such securities to the tune of EUR 12 billion in 2022, they recorded net purchases of EUR 24 billion in 2023 and EUR 11 billion year-to-date in the first quarter of 2024. Investments in bond CIUs also rose, from EUR 1 billion in 2022 to EUR 5 billion in 2023, and EUR 8 billion year-to-date in early 2024. Net flows of investments in debt securities held "directly" (as opposed to "indirectly" via CIUs) rose from –EUR 28 billion in 2022 to +EUR 1 billion in 2023, and +EUR 21 billion in the first quarter of 2024 (year-to-date). However, trends differed widely from one issuer category to another.

On the one hand, net investments in debt securities issued by the euro area's financial sector were very strong, reaching EUR 30 billion in 2023 and even EUR 42 billion in early 2024. On the other, insurers and pension funds continued to disinvest from euro area government debt securities, with net sales reaching EUR 37 billion in 2023 (including EUR 34 billion worth of French government debt securities). These disinvestments are particularly notable given that 2023 was characterised by a sharp increase in government debt securities in circulation, under the combined effect of general government issuance and the end of Eurosystem purchase programmes. But, these securities were mainly purchased by non-resident investors and banks.[6] As regards insurers, their disinvestments can be explained in particular by the dynamics of their commitments to policyholders. Indeed, households favoured unit-linked insurance products, whose "investment universe" is not highly intensive in government bonds (see Chart 4 below). Euro-denominated products, on the other hand, recorded a net outflow, which naturally led to negative flows in government debt securities, given the weight they represent in "non-unit linked" investments. In addition to these determinants on the liabilities side, another explanatory factor is the search for liquidity conducive to money market investments.

As regards investments in equity products, 2023 was marked by net sales in equities and participating interests to the tune of EUR 9 billion, but a recovery seemed to be underway in the first quarter of 2024 (with net purchases of EUR 10 billion on a year-to-date basis). In the case of investments in non-money market CIUs, net flows were almost zero in 2023 (and slightly negative on a year-to-date basis at the start of 2024), compared with EUR 23 billion in 2022 and EUR 50 billion in 2021. Equity and composite funds have been the most affected by the decline in investments since 2022. In 2023, they recorded net sales of EUR 7 billion and EUR 12 billion respectively. Net investments in real estate CIUs also slowed, dropping from EUR 6 billion to EUR 3 billion; net sales of EUR 1 billion were even recorded in the first quarter of 2024 (year-to-date).

C2 Investment flows of French insurers and pension funds

(EUR billions, total over four rolling quarters)



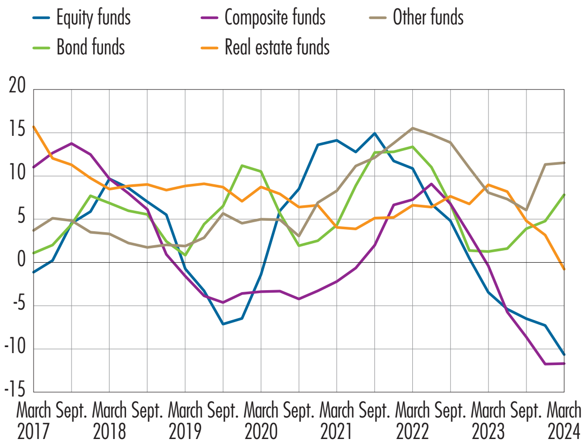
Source: *Autorité de contrôle prudentiel et de résolution* (ACPR), Banque de France.
Note: CIU, collective investment undertaking.

5 Sales include redemptions of securities that have reached maturity.

6 See Banque de France (2024), *La balance des paiements et la position extérieure de la France. Rapport annuel 2023* (in French only), in particular the section "Des niveaux records d'achats de titres de dette français par les non-résidents en 2023".

C3 Investment flows into non-money market funds by French insurers and pension funds

(EUR billions, year-to-date rolling total, before applying the look-through approach to CIUs)

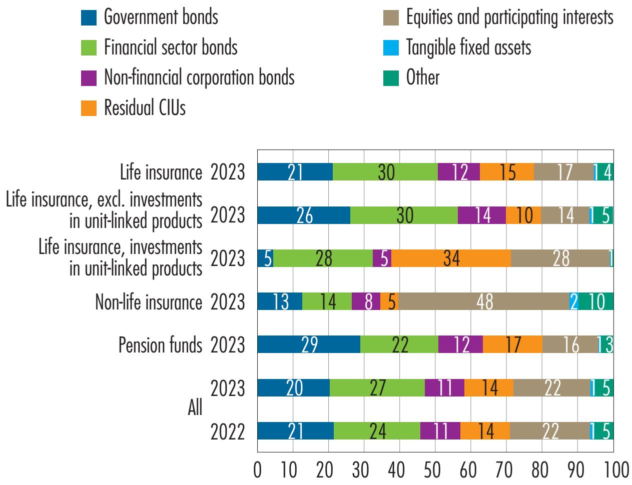


Source: *Autorité de contrôle prudentiel et de résolution* (ACPR), Banque de France.
Note: CIU, collective investment undertaking.

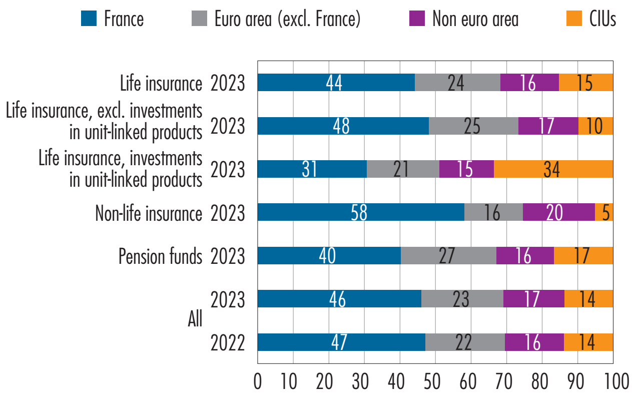
C4 Investment structure of French insurers and pension funds, end 2023

(%, after applying the look-through approach to CIUs)

a) By product



b) By geographical area



Source: *Autorité de contrôle prudentiel et de résolution* (ACPR), Banque de France.
Notes: Applying the look-through approach consists in replacing the CIU shares/units with the underlying assets held in the CIUs. This process makes it possible to identify the final beneficiaries of the investments made by the CIUs (see Appendix 2).
CIU, collective investment undertaking.

The share of bonds in investments after application of the look-through approach rose slightly

Thanks to positive valuations and investment flows in interest rate products, the share of bonds in insurers' and pension funds' investments after application of the look-through approach[7] rose slightly in 2023. It stood at 58.2% at year-end, compared with 57.1% at the start of the year.

Bonds feature prominently in insurers' investments. First, insurers guarantee the capital of their euro-denominated funds through high-quality bonds held to maturity. Second, although several tax provisions encourage policyholders to keep their life insurance policies over the long term, a proportion of life insurance policies may be redeemed at any time. Insurers must therefore be able to mobilise their liquidity, or sell assets rapidly without incurring major losses. High-quality bonds with a deep market, such as government bonds, meet this need. Nevertheless, the rapid rise in interest rates in 2022 caused part of insurers' bond portfolios to become unrealised losses. This prompted insurers to raise the share of their cash holdings (see "Strong liquidity against a backdrop of a contained increase in redemptions" below).

7 See the definition of the look-through approach in Appendix 2 "Methodology".

Equities represent a significant share of investments in unit-linked policies (28%), for which the financial risk is borne by the policyholder. It should be noted that, in addition to the direct financing of companies through bonds and equities, insurers also contribute indirectly to their financing via bonds issued by financial corporations, which ultimately help finance companies.

Like many investors, insurers and pension funds favour investments in securities issued by residents or within the euro area: securities issued by residents account for almost half (46%) of investments, and those issued within the euro area as a whole close to 70%. Unit-linked products have a smaller domestic bias (31%).

BOX

The share of responsible and diversified investments was up in 2023

Investments labelled "responsible" by insurers and pension funds continued to grow

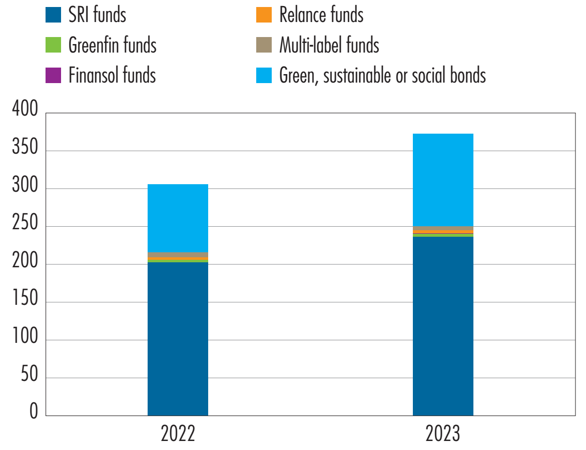
The "responsible"[1] investments by French insurers and pension funds amounted to EUR 373 billion at the end of 2023, up EUR 67 billion on 2022. The bulk of these investments were in the form of funds labelled "socially responsible investment" (SRI, EUR 237 billion) or green, sustainable or social bonds (EUR 122 billion, of which EUR 81 in green bonds).

As regards SRI-labelled funds,[2] the EUR 35 billion increase in investments was primarily due to a EUR 26 billion rise in investments on a like-for-like basis. However, scope effects – i.e. the net effect of funds acquiring or losing the label between 2022 and 2023 – were significant: they amounted to EUR 9 billion in 2023.

The weight of real estate in investments declined, mainly due to lower valuations.

"Responsible" investments by French insurers and pension funds

(EUR billions, before applying the look-through approach to CIUs)



Source: *Autorité de contrôle prudentiel et de résolution* (ACPR), Banque de France.
Notes: SRI, socially responsible investment; CIU, collective investment undertaking.
For the definition of the look-through approach, see Chart 4 and Appendix 2.

Investments in diversification assets (see definition in Appendix 1) rose from EUR 468 billion to EUR 484 billion, mainly thanks to structured financing (up by EUR 23 billion) and infrastructure-related investments (up by EUR 8 billion).

1 A responsible investment is defined as "*an investment that aims to reconcile economic performance with social and environmental impact by financing companies that contribute to sustainable development in all sectors of activity*" (Association française de la gestion financière and Forum pour l'investissement responsable, 2013). In this article, these investments are measured by the amounts invested in labelled funds and in green, social or sustainable development bonds.

2 There are five labels: SRI, Greenfin, Relance, Finansol and CIES. The reference framework for the labelled CIUs used for this article is that published exclusively for information purposes by the Banque de France under this link, with the precautions for use indicated on the page: *https://www.banque-france.fr/en/statistics/investment-funds*

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Conversely, real estate assets fell by 8% at the end of 2023, mainly on account of "financial" real estate, i.e. real estate equities and real estate CIUs. This decline is due in particular to negative valuation effects linked to falling real estate prices.

Annual outstandings in diversification assets of French insurers and pension funds

(outstandings in EUR billions, share in %; before applying the look-through approach to CIUs)

	Insurers		Pension funds		Insurers and pension funds	
	2022	2023	2022	2023	2022	2023
Total investments	2,546.0	2,665.4	170.1	182.4	2,716.2	2,847.8
Total diversification assets	443.1	458.7	24.8	25.3	467.9	484.1
Infrastructure	**50.4**	**57.6**	**3.6**	**4.2**	**54.0**	**61.7**
Structured financing	**105.7**	**128.0**	**3.7**	**4.3**	**109.3**	**132.4**
Securitisation	4.6%	5.6%	8.1%	6.7%	4.7%	5.7%
Other structured securities	95.4%	94.4%	91.9%	93.3%	95.3%	94.3%
Real estate	**214.9**	**197.1**	**12.2**	**11.2**	**227.1**	**208.3**
Directly held commercial real estate	12.5%	12.7%	8.9%	10.5%	12.3%	12.7%
Directly held residential real estate	3.4%	3 .8%	2.7%	2.8%	3.3%	3.7%
Equities (incl. participating interests)	38.8%	36.0%	52.4%	50.1%	39.5%	36.7%
Real estate CIUs	45.1%	47.3%	35.8%	36.5%	44.6%	46.7%
Other real estate	0.3%	0.3%	0.2%	0.2%	0.3%	0.3%
Other diversification assets	**64.8**	**67.9**	**4.8**	**5.0**	**69.6**	**72.9**
Alternative funds and private equity funds	73.1%	73.8%	54.1%	62.0%	71.8%	73.0%
Convertible and hybrid bonds	26.9%	26.2%	45.9%	38.0%	28.2%	27.0%
Loans to non-financial corporations	**7.4**	**8.2**	**0.5**	**0.6**	**7.9**	**8.8**

Source: *Autorité de contrôle prudentiel et de résolution* (ACPR), Banque de France.
Notes: Outstandings at 31 December; CIU, collective investment undertaking.
For the definition of the look-through approach, see Chart 4 and Appendix 2.

2 Lower unrealised bond losses and higher rates of portfolio renewal

Unrealised bond losses were lower than in 2022

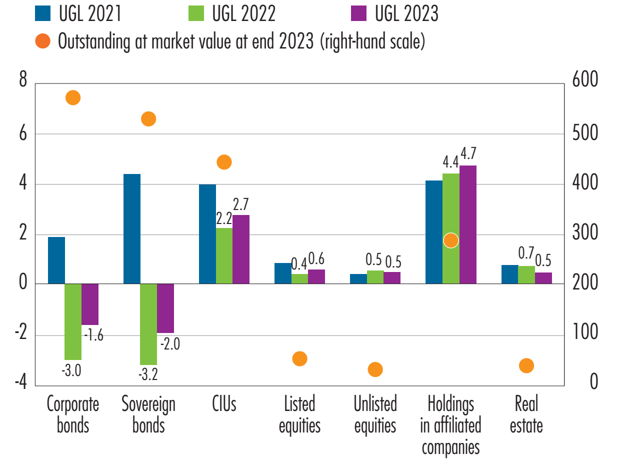
The rate on bonds held by insurers and pension funds is fixed in the vast majority of cases, while floating-rate and index-linked bonds account for just 14% of insurers' bond portfolios and 12% of those of pension funds.

The period of low interest rates and the sharp rise in interest rates in 2022 led first to a sharp increase, then to a significant drop in the fair value[8] of bonds held in the portfolio. As a result of the slight fall in interest rates in the fourth quarter of 2023, unrealised bond losses represented only –3.6% of the total net book value of assets on average, compared with –6.2% at the end of 2022. Unrealised gains were still recorded on other types of assets, despite the decline in those on real estate in line with falling property prices (see Chart 5 below).

8 Fair value is defined as the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction.

C5 Unrealised gains and losses (UGL) for French insurers and pension funds since 2021, and principal investment outstandings at end 2023

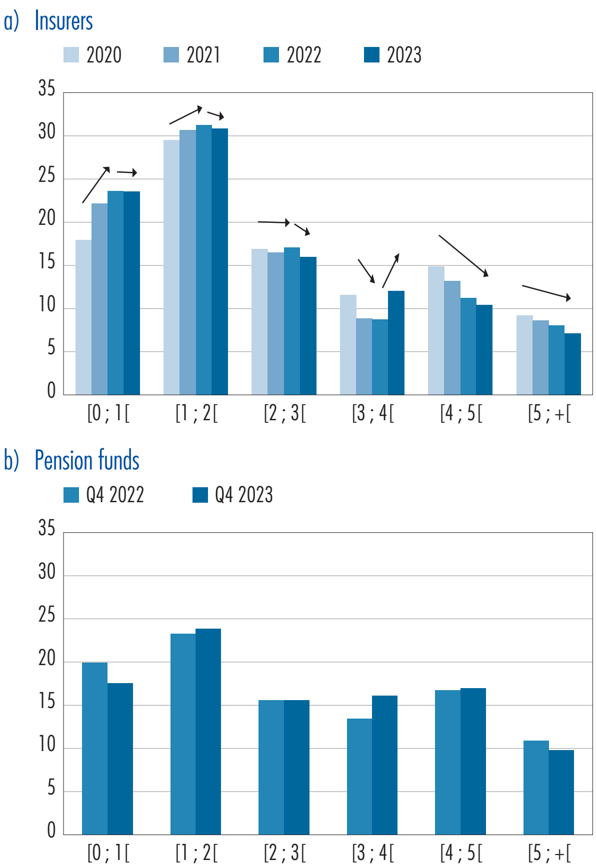
(before applying the look-through approach to CIUs excl. unit-linked products; as a % of total net book value of assets held, outstandings in EUR billions)



Source: *Autorité de contrôle prudentiel et de résolution* (ACPR), Banque de France.
Notes: CIU, collective investment undertaking.
For the definition of the look-through approach, see Chart 4 and Appendix 2.

C6 Breakdown of French insurers' and pension funds' bonds by coupon rate between end 2020 and end 2023

(%)



Source: *Autorité de contrôle prudentiel et de résolution* (ACPR), Banque de France

Bond portfolios were renewed to achieve higher yields

In 2023, rising interest rates also enabled insurers to reinvest the nominal value of maturing bonds in securities offering higher yields than during the low-rate period, but lower yields than during the previous period. Thus, in 2023, the share of bonds with a coupon rate above 3% reached 30%, compared with 28% in 2022. This 2-point increase mainly concerned bonds with a coupon rate between 3% and 4%. In 2023, the share of lower-yielding bonds also declined, whereas this share had risen sharply up until 2021 (see Chart 6). Overall, the average yield on bonds held by market organisations stood at 2.21% at the end of 2023 (2.17% for insurers and 2.60% for pension funds).

However, the yields on insurers' assets improved very gradually, depending on the rate at which securities acquired during the period of low interest rates were renewed. This is because insurers and pension funds are long-term investors, and usually hold bond securities to maturity. Nevertheless, insurers and pension funds have a capitalisation reserve that they can draw on to smooth the results realised on bond sales by offsetting the capital losses incurred on the sale of bonds sold before maturity against the capital gains achieved earlier. In this way, they are able to speed up the renewal of their bond holdings by selling low-yielding bonds with capital losses, and buying higher-yielding bonds, without recording any losses by drawing on the capitalisation reserve. This mechanism enables them to maintain a good match between their assets and liabilities over the long term. This reserve amounted to around 1.5% of life insurers' investments in 2023, indicating that insurers sold a very small share of their bond portfolios before maturity. This proportion has hardly changed, but has nevertheless tended to fall over the past two years, after rising during the low-rate period, from 1.2% of outstandings in 2014 to 1.6% in 2021. With the rise in interest rates, and despite capital losses incurred, insurers have continued to sell part of their bond portfolios, in order to switch to higher-yielding bonds.

Strong liquidity against a backdrop of a contained increase in redemptions

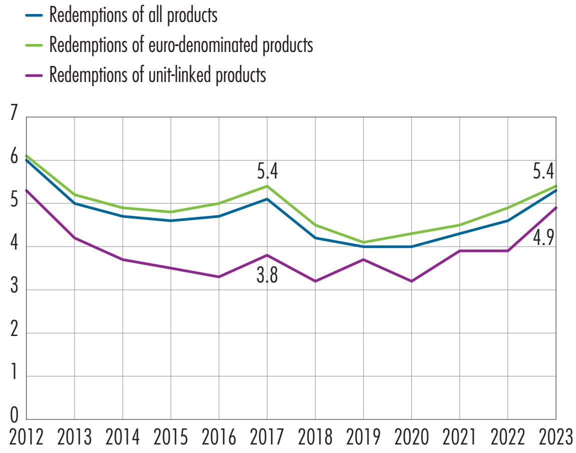
In times of rising interest rates, insurers face the risk of investors in search of higher yields redeeming their euro-fund life insurance policies. As a result, they are exposed to the risk of having to sell assets that have lost value to offset the payment of liquidity to policyholders.[9] In 2023, as with other financial investments, savings flows into life insurance and retirement savings contracted. In particular, life insurance recorded slightly negative net inflows of –EUR 2.3 billion, despite significant payments (EUR 126.9 billion in 2023, the second-highest inflow year after 2021), due to a sharp increase in redemptions (EUR 84.1 billion). Net inflows varied from one product to another: they remained negative (–EUR 33.4 billion) for euro-denominated products, but positive (+EUR 31.1 billion) for unit-linked products.

The redemption rate[10] thus rose slightly on euro-denominated products to stand at 5.4% in 2023, after 4.9% in 2022. This rate also climbed on unit-linked products (to 4.9%, see Chart 7). Due to inflation and rising interest rates, redemptions remained at a high level in the first quarter of 2024. Although they were down compared to the same period in 2023, they have ranked among the three highest levels since 2011. However, this increase in redemption rates remains contained compared to that of the 2011-12 euro area sovereign debt crisis, and the high level of payments confirms households' interest in life insurance.

Among the factors explaining the rise in redemptions, inflation, rising interest rates and the cost of financing real estate investments may have encouraged households

C7 Redemption rates for life insurance policies in France

(%)



Source: *Autorité de contrôle prudentiel et de résolution* (ACPR), weekly collection of life insurance flows; Banque de France.

to draw on their life insurance investments to finance current consumption or real estate purchases. In addition, the higher interest rates paid on bank term deposits, in particular, have attracted some household savings. However, there is less of a discrepancy between the revaluation rate on euro-denominated life insurance policies and the interest rates paid on bank products, in particular the Livret A passbook savings account, which has been capped at 3% since January 2023 and is used as a benchmark. Indeed, in 2024, the average revaluation rate on euro-denominated products in France was around 2.6% for 2023, i.e. 0.7 point higher than for 2022. This increase was largely financed by a reversal of the provision for profit-sharing, which dropped from 5.4% to 4.9% of outstandings over the same period. Return on assets (ROA) rose slightly, from 2.0% to 2.2%, including 0.4 point in realised capital gains.

In 2023, French insurers and pension funds generally held a large proportion of securities that could be easily and immediately converted into cash, in order to cope with liquidity risk. By contrast, at the end of 2023, the share of high-risk – so-called "high-yield" – investments in the bond portfolios of insurers and pension funds was

9 For more details on the life insurance market, see M. Carreira, J.-L. Coron and S. Jarrijon (2024). Pension funds are hardly concerned by this issue, due to the provisions of Article L.224-4 of the French Monetary and Financial Code.

10 Redemptions as a ratio of outstanding euro-denominated and unit-linked liabilities.

still marginal (2.2%, compared with 2.4% in 2022), and highly-rated issuers (above AA-, i.e. at least equivalent to French government debt – see Chart 8) accounted for 45% of investments.

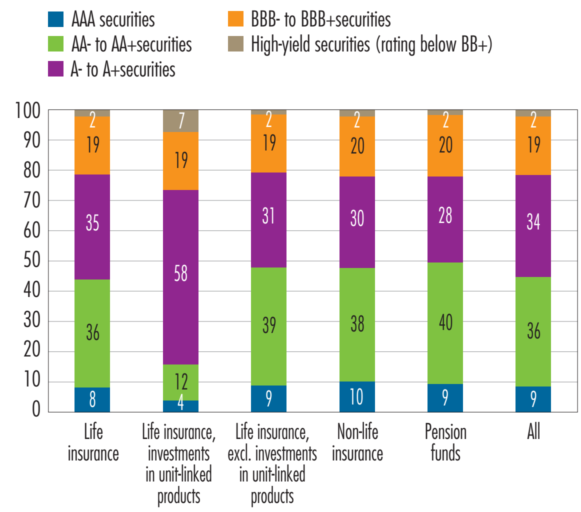
The average liquidity ratio of assets held by French life insurers and pension funds was thus around 50% (according to the methodology used for banking supervision – see Chart 9 and Appendix 2).

In order to cope with the rapid need for liquidity that would result from a sharp increase in redemptions of life insurance policies, insurers made sure they had bonds with short residual maturities. At the end of 2023, almost 20% of bond portfolios had a residual maturity of less than two years, a proportion that varies little due to the high inertia of the investment portfolios. Compared with the end of 2022, the share of cash holdings climbed from 1.6% to 2.4% (see Chart 10). This is due in particular to an increase in cash holdings for the 25% best-endowed insurers. Some insurers, for example, resorted to cash pooling at group level. This means that some group entities were able to raise their level of liquidity, while others maintained a minimum level of liquidity, knowing that they could mobilise intra-group liquidity if necessary.

As regards pension funds, they logically hold bonds with longer maturities than insurers (29% of their bond portfolio has a maturity of over 14 years, compared with 16% for insurers). Pension funds' investments, albeit diversified, are less exposed to intermediate-maturity bonds than those of insurers (35% of their portfolio has a maturity of less than six years, compared with 49% for insurers). It should be noted that the pension market is less exposed to liquidity risk than the insurance market, due to the non-redeemable nature of a large proportion of retirement commitments. Thus, the share of pension funds' cash holdings (1.7%), although comparable to that of insurers in 2022, was estimated at 1.0% at the end of 2023.

C8 Bond portfolio structure of French insurers and pension funds, end 2023

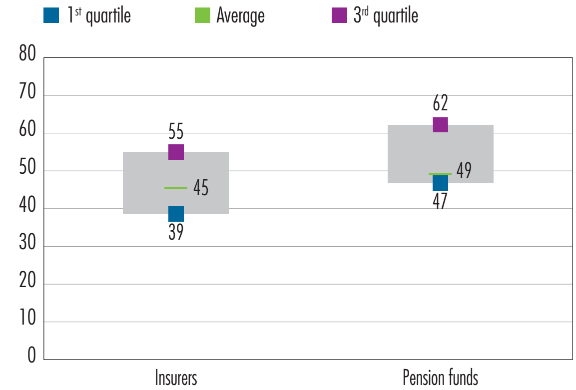
(%, after applying the look-through approach to CIUs)



Source: *Autorité de contrôle prudentiel et de résolution* (ACPR), Banque de France.
Notes: CIU, collective investment undertaking.
For the definition of the look-through approach, see Chart 4 and Appendix 2.

C9 Share of liquid assets in the portfolios of French insurers and pension funds, end 2023

(%)



Source: *Autorité de contrôle prudentiel et de résolution* (ACPR), Banque de France.
Scope: Life and composite insurers subject to quarterly reporting submissions.
Key: At the end of 2023, for insurers, the average liquidity ratio was 45% (pension funds: 49%), 25% of insurers had a ratio below 39% (pension funds: 47%), and 25% had a ratio above 55% (pension funds: 62%).

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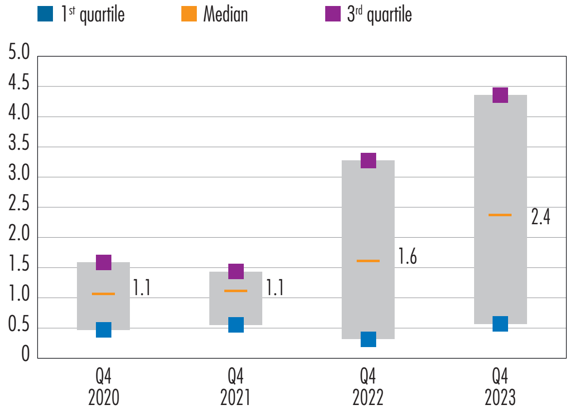
C10 Share of cash and deposits, commercial paper and money-market bonds in French insurers' total investments (excl. unit-linked products)

(%, before applying the look-through approach to CIUs)



Source: *Autorité de contrôle prudentiel et de résolution* (ACPR), Banque de France.
Scope: Insurers subject to quarterly reporting submissions.

⁂

The developments in French insurers' and pension funds' investments in 2023 confirm the trends that began in 2022. In particular, the overall share of their investments in money market and bond CIUs increased as a result of the rise in interest rates.

At the same time, the risks that could result from this tighter monetary environment, i.e. major capital losses or outflows, did not materialise, and were partially mitigated. Even though competition between savings products was still high (regulated savings inflows reached a record level in 2023, after an already exceptional year in 2022),[11] redemption rates were contained, and unrealised losses for insurers and pension funds decreased overall, while asset liquidity remained at a high level.

11 See Banque de France (2024), *L'épargne réglementée. Rapport annuel 2023.*

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Carreira (M.), Coron (J.-L.) and Jarrijon (S.) (2024)
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Appendix 1
Definitions

Diversification assets

Diversification assets (also known as "alternative" assets) are investments that do not fit into the conventional broad categories of financial investments (equities, bonds), or at least whose performance is less correlated to variations in stock market and interest rate indices.

They include:

- infrastructure investments (including infrastructure funds);
- structured securities: hybrid securities that combine a bond component and a derivative component (hedging mechanisms such as credit default swaps (CDS), credit maturity swaps (CMS) and credit default options (CDO)), or securities resulting from securitisation;
- real estate, distinguishing between the tradable segment (listed equities in real estate companies and units in real estate funds) and the non-tradable segment (unlisted equities in real estate companies, units in non-trading real estate companies and buildings);
- other diversification assets (units in alternative funds and private equity funds, as well as convertible and hybrid bonds);
- loans to non-affiliated companies (not belonging to the insurance group).

Green bonds

There is no single internationally recognised definition of green bonds. To obtain this qualification, issuers can refer to the principles laid down by the International Capital Market Association (ICMA), and request that it be validated by a private international body such as the Climate Bond Initiative. The list of green bonds used here corresponds to debt securities where the main purpose of the funds raised is explicitly mentioned in the issue prospectus as a green activity. A European taxonomy of green activities and a European standard for green financial products are currently being drawn up.

Unrealised gains/losses rate

This represents the percentage variation between the market value and the net book value of securities held.

Appendix 2
Methodology

Legal forms of insurers and pension funds

Insurers take several legal forms:

- insurance companies and mutual insurance companies governed by the French Insurance Code (*Code des assurances*);
- mutual societies governed by Book II of the French Mutual Insurance Code (*Code de la mutualité*), which mainly insure health risks;
- provident institutions governed by the French Social Security Code (*Code de la sécurité sociale*).

Historically, provident institutions, which are joint governance structures, have specialised in health and provident risk group insurance (companies or professional branches). Mutual insurance companies, mutual societies and provident institutions are non-profit structures. Mutual societies and provident institutions essentially insure individual

The pension funds mentioned above are companies dedicated primarily to covering retirement commitments. These companies refer to the supplementary occupational pension institutions (ORPS – *organismes de retraite professionnelle supplémentaire*), and may be governed by the French Insurance Code, French Mutual Insurance Code or French Social Security Code. Historically, pension fund portfolios have been created through transfers from insurance companies.

Study population

The sample used in the 2023 study includes the 449 active insurers subject to the Solvency II Directive and its implementing legislation (mainly according to the criterion of balance sheet size) and 23 supplementary occupational pension institutions. These insurers fall into two categories:

- Life and composite insurers, which manage the bulk of euro-denominated contracts and all unit-linked contracts. Their liabilities are essentially long-term.
- Reinsurers are classified as "non-life" insurers. Non-life (or property and casualty) insurers cover property damage, personal injury and civil liability. Their liabilities are essentially short term as generally, with a few exceptions such as civil liability, surety and construction insurance, they settle claims in less than two years.

Study data

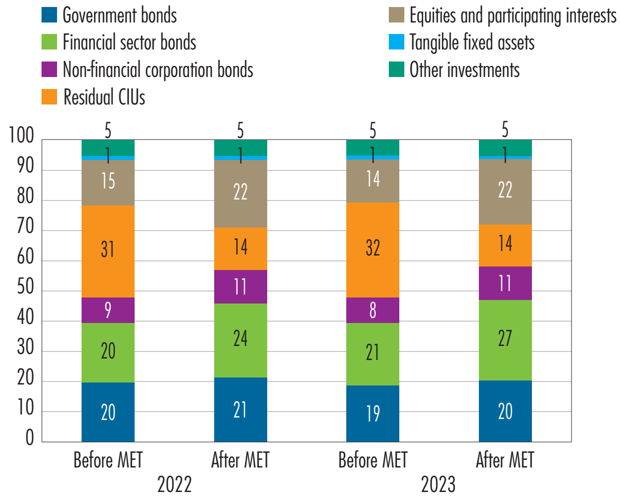
The reference closing date is 31 December 2023 and, unless otherwise stated, the investment data used are those taken from the annual "asset list" reporting templates S.06.02 and PFEF.06.02. Investment values are disclosed at market value. Quarterly reporting is also used.

Application of the look-through approach to collective investment undertakings (CIUs)

The look-through approach is applied to the CIU shares/units held by insurers and pension funds by exploiting Banque de France databases (mainly investment fund data). This process makes it possible to identify the final beneficiaries of investments: the CIU shares/units in insurers' portfolios are replaced by the underlying assets in which the CIUs invest.

Investment structure of French insurers and pension funds, before and after application of the look-through approach

(%)



Source: Banque de France.
Note: CIU, collective investment undertaking.

Method for calculating the share of liquid assets

The calculation is based on the standards developed by the Basel Committee on Banking Supervision, within the framework of Basel III, which introduced a liquidity coverage ratio (LCR) to strengthen bank's short-term resilience to liquidity risk. This calculation, used in particular by the European Insurance and Occupational Pensions Authority (EIOPA), is the ratio of unencumbered high-quality liquid assets (HQLA), easily and immediately convertible into liquidity on the private markets in the event of a liquidity crisis lasting three calendar days, to total investments.

Method for calculating flows

Flows, valuations and reclassifications are calculated from the data reported by the insurers in the detailed "asset list" reporting templates (S.06.02 and PFEF.06.02) and additional data collected from the CIUs 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:

$$Outstandings_t - Outstandings_{t-1} = Flows_t + Valuations_t + Reclassifications_t$$

Flows, reclassifications and valuations are calculated on a security-by-security basis and then aggregated. Outliers (in terms of valuation and/or flows) resulting from the calculation are removed.

Flows and reclassifications are calculated first and valuations are then calculated as the change in outstanding amounts minus flows and reclassifications. For euro-denominated equities, the formula for calculating flows is as follows:

$$Flows_t = (Quantity_t - Quantity_{t-1}) \times (Price_{t-1} + Price_t) / 2$$

Where $Quantity_t$ is the amount of securities held at time t and $Price_t$ is the security's unit price at market value. For debt securities, flows are calculated as the change in the quantity of securities at an average price net of accrued interest ("clean price") plus interest income for all securities held at the end of the period under review. A negative flow may correspond either to the sale of a security or to the non-renewal of a security that has reached maturity.

When a characteristic of a security changes (e.g. its issuing sector), and in the absence of corrective submissions on previous outstanding amounts, the break in series is managed through a reclassification.

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