Fundación MAPFRE

SAVINGS AND INSURANCE INDUSTRY INVESTMENTS: AN UPDATE

MAPFRE Economics

Savings and Insurance Industry Investments: an Update

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Presentation

This report updates the global savings outlook, highlighting the fact that in 2023, the context was marked by a monetary and fiscal transition, with relatively lax financial conditions despite interest rates that remained high. There are evident regional differences in savings, with high- and lower-middle-income countries facing structural deficits. Although the anticipated adjustments have failed to materialize, significant changes are expected in 2024, especially in lower-income nations, where savings potential could increase in the future.

The report also offers an overview of the distribution and risk profile by asset type in the investment portfolios of insurance companies across a selection of the main markets of the world's biggest regions (Eurozone, United States, Japan, United Kingdom, Spain, Brazil, and Mexico). Likewise, as in previous versions, the report includes an analysis of the investment portfolios of a selection of large European insurance groups.

As highlighted in other reports prepared by MAPFRE Economics, the insurance industry is known for being one of the main managers of savings and institutional investors worldwide. Unlike other financial institutions, the insurance business model calls for the implementation of liability-driven investment strategies, with the objective of achieving an adequate match in terms of maturity, currencies, and interest rates between the liabilities assumed and the investment instruments behind them. Thus, the insurance industry contributes to the consolidation of capital through a steady inflow of resources for the long-term financing of projects that promote economic growth, and also supports the stability of the financial system by providing a mechanism that reduces procyclicality at times of crisis.

MAPFRE Economics

Executive summary

Global savings

The analysis of the global savings situation in 2023 has been marked by a context of transition in relation to monetary and fiscal policy. Despite high interest rates and the expectation of future cuts, financial conditions have remained relatively flexible. The expected fiscal reforms have not happened, while industrial policies and defense spending have been consolidated, as has the use of public savings to address the energy crisis. The 2022 outlook in relation to a possible end to the transfer of public to private savings has failed to materialize, suggesting that the dynamics seen in 2022 have persisted. This year, these trends have continued, with the most significant changes left for the future, anticipating both monetary and fiscal adjustments in 2024.

At a global level, total savings have remained stable, with the public sector playing a notable countervailing role. This stability reflects an intermediate state of savings, where regional differences are evident: middle-to-high income countries, especially in emerging Asia, contrast with high- and low-to-middle income regions, where savings are lower. The comparison of gross savings to necessary savings, according to Modigliani's life cycle theory, reveals that the structural deficit has remained since 2020, with the biggest brunt borne by high-income countries (which face large savings gaps) and underprivileged countries. This deficit is particularly worrying in contexts of restricted economic activity. Thus, the structure of global savings is dominated by countries that have exceeded their demographic dividend, where private savings are limited and reliance on public savings is high. In contrast, developing countries, with young populations, have a greater savings capacity, which could change over time as they mature demographically.

In summary, although the adjustments expected in 2023 failed to materialize, they are expected in 2024, with a bigger impact in lower-income countries. In the long term, deficits are expected to increase in several regions, while there is hope that countries with young populations can become future providers of savings.

Insurance industry investments

The global economy has generally proven resilient to rising interest rates in many regions, despite concerns about stagflation and a potential global economic recession. Economic growth has been supported by a drop in global inflation, higher public spending, and household consumption driven by accumulated savings. The outlook for the next two years is based on the hypothesis that central banks will have managed to bring inflation under control without a recession actually occurring. This hypothesis, at the time of writing, is not guaranteed, given what appear to be significant slowdowns in the manufacturing sector (especially automotive and construction), while services remain strong.

Some central banks have already started to cut interest rates, with the consequent impact on the reweighting of fixed income portfolios, causing interest rate curves to "disinvest." It should be noted that, historically, the

point at which yield curves recover a positive slope (long yields are again higher than short yields) is when it can usually be seen whether a recession is really going to occur. However, in this case, Western central banks are confident that they have time to avoid this scenario. Meanwhile, the fiscal support measures activated to counterbalance monetary tightening have resulted in fiscal deficits and debt accumulation lengthening over time.

Regarding the structure of investment portfolios, it is worth noting that the reweighting of insurance companies' portfolios between different types of assets tends to be marginal due to the need to match terms, rates, and currencies with their liabilities, and given the consumption of capital. As a result, the changes between asset categories tend to be small scale. However, underlying this stability between asset classes, within the fixed income category, there are reweightings, particularly in duration (mitigation of interest rate risk), in anticipation of changes in market rates and central banks (caused by inflation), and also, reweightings in relation to credit ratings (mitigation of issuer credit risk).

Notwithstanding the foregoing, in the medium-term analysis included in the 2023 update contained in this report,[1] it can be seen that there were some significant reweightings in both the Eurozone and United States between 2019 and 2023, with fixed income losing relative weight in the Eurozone (still majority) by 8.2 percentage points (pp) and an increase in variable fixed income of 5.5 pp during that period. There was also a 4.6-pp drop in the weight of fixed income in the United States, with an increase in cash and deposits of 1.6 pp (which saw significant increases in their profitability with the Fed's aggressive rate hikes in 2022 and 2023) and, to a lesser extent, in equities, which stood at 1.2 pp. These shifts may have been influenced by drops in the ratings of longer duration fixed income portfolios, as a result of the sharp increase in interest rates over the past two years on both sides of the Atlantic.

Table S-1
Selected markets: investments managed by the insurance industry, 2023
(millions of euros)

Market	Investments	GDP	% of GDP
United Kingdom	2,662,322	2,962,174	89.9%
Japan	2,669,187	3,731,070	71.5%
Eurozone	7,615,065	14,369,221	53.0%
United States	9,365,704	24,228,655	38.7%
Spain	284,452	1,461,889	19.5%
Brazil	302,345	1,925,048	15.7%
Mexico	97,513	1,584,284	6.2%

Source: MAPFRE Economics (with data from EIOPA, ICEA, BoE, NAIC, SUSEP, CNSF, LIAJ, and IMF)

Against this backdrop, this report provides a comparative view of the distribution and evolution of insurance company investments, by types of assets, in a selection of markets, including both developed markets (Japan, the Eurozone, the United States, the United Kingdom, and Spain) and emerging markets (Brazil and Mexico). As shown in Table S-1, this is a set of markets that offer a different level of relative development. It focuses on the cases of the United Kingdom and Japan, in which the weight of investments managed is higher in relation to their respective GDP, together with the Eurozone and United States markets, which have the highest volume of investments managed in absolute values.

It is worth noting that, where possible, information on investments in these markets is presented by distinguishing between the traditional investment portfolio (in which the investment risk is retained in the balance sheet of insurance companies) and the portfolio that supports products in which the policyholder is responsible for the investment risk, which we have called the unit-linked business portfolio (which includes both strict unit-linked products and other variable annuity products, where there is also an assumption of investment risk by the policyholder; they are managed in separate accounts and investments are realized in mutual fund units).

Table S-2
Selected markets: structure of investment portfolios broken down by type of insurance business, 2023
(%)

Type of business	Eurozone	United States	United Kingdom	Spain
Traditional business portfolio	79.2%	74.3%	43.4%	87.2%
Unit-linked business portfolio	20.8%	25.7%	56.6%	12.8%

Source: MAPFRE Economics (with data from EIOPA, BoE, and NAIC)

This distinction in the markets is shown in Table S-2. Except in the United Kingdom, investments that back investment Life insurance in which policyholders assume the financial risk of the portfolios assigned to their policies represent a substantially lower percentage than traditional business. However, over the past decade, they have become more commonplace in both the Eurozone (and particularly in Spain) and the United States, where products known as "variable annuities" are common, with the policyholder assuming financial risks in the accumulation phase, to a greater or lesser extent, depending on the guarantees included.[2] In the United Kingdom, in turn, the percentage of "unit-linked" products has increased again, and this is the only market where these products are predominant.

In investment Life insurance portfolios of the "unit-linked" or similar type (including "variable annuities" products), the risk and investment decisions do not fall on the insurance company, but are affected by the decisions that insurance policyholders make. Thus, once the traditional investment portfolio has been defined, the proportions corresponding to each category of assets are then calculated. This method of presenting the information is based on the idea that in traditional (i.e. not unit-linked or variable annuity) portfolios, it is appropriate to distinguish between investment types, with a view to defining the nature of the risk taken on by insurance companies.

In this sense, the highest level of breakdown of the portfolios for comparative purposes (with a breakdown of corporate fixed-income investments) was achieved for the markets in Japan, the Eurozone, the United States, the United Kingdom, and Spain (see Table S-3). This information focuses on the United States insurance market, due to the predominant weight of investments in corporate fixed income, which are well above the other insurance markets of developed economies, although at the end of 2023 (46.5%), they represented a somewhat lower weight than at the end of the previous fiscal year (47.5%). To this end, it is worth noting that the depth and breadth of the capital market in this country

Table S-3
Selected markets: a structural breakdown of traditional business investment portfolios, 2022–2023
(%)

Asset type	Eurozone		United States		Japan		United Kingdom		Spain	
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Corporate fixed income	23.5%	23.5%	47.5%	46.5%	6.5%	6.2%	32.9%	32.0%	21.2%	21.2%
Sovereign fixed income	25.6%	25.7%	14.8%	14.4%	43.7%	41.3%	16.6%	20.9%	51.2%	51.6%
Equities	18.6%	18.6%	13.6%	14.3%	5.9%	6.9%	5.9%	4.5%	7.4%	7.2%
Loans	5.1%	5.3%	10.5%	10.7%	7.4%	6.4%	10.0%	10.8%	0.7%	1.1%
Cash and deposits	1.9%	2.0%	4.6%	5.5%	3.0%	3.4%	10.2%	10.0%	5.1%	5.1%
Real estate	1.7%	1.5%	0.5%	0.5%	1.6%	1.5%	2.0%	0.3%	4.0%	3.6%
Mutual funds	20.5%	20.5%	-	-	2.4%	2.5%	22.3%	17.3%	12.6%	12.1%
Other investments	3.1%	2.8%	8.5%	8.1%	29.5%	31.8%	0.1%	4.2%	-2.2%	-2.1%

Source: MAPFRE Economics (with data from EIOPA, ICEA, BoE, NAIC, and LIAJ)

offers more opportunities to find this type of issuing to invest in, with a wide variety in terms of duration and credit quality levels.

The Japanese insurance market, in turn, continues to see a high percentage of investments in foreign currency, included in the category of other investments and accounting for 31.8% of its total portfolio. Insurance companies in Japan have traditionally been an important source of investment for Japanese sovereign bonds and, in particular, for "super-long-term government bonds" (JGBs). However, despite the recent rate hikes, the interest rate environment remains low, making it very difficult to maintain the return on investment while aligning the duration of assets and liabilities, bearing in mind that old portfolios with high guaranteed rates still remain. The reaction from insurance companies in this environment has been to increase their investments overseas, mainly in U.S. bonds, in search of higher yields to meet their guaranteed interest obligations. This has caused insurers to be more exposed to international markets and to the risk of exchange rate fluctuations (as was the case in the carry trade volatility event of last August).

Among the developed markets considered in this analysis, the Spanish insurance market represents the highest proportion of fixed income in its investment portfolio and, at the same time, a higher concentration in sovereign fixed income. However, if the Brazilian and Mexican markets are considered, they have even higher percentages of investments in fixed income securities than the Spanish market. Thus it is observed that in insurance markets with a lower relative level of development (measured by the asset volume of their investment portfolios), the percentage of investments in fixed income securities tends to be higher.

In addition, Table S-4 provides a breakdown by asset type of the investment portfolio structure for all the markets analyzed. The high level of concentration of fixed income investment (both corporate and sovereign) throughout the sample comprising the analysis stands out. As indicated previously, this predominance can be explained to a large extent by the fact that the insurance business model involves the need to implement liability-driven investment strategies in order to achieve an appropriate match in terms of maturity and interest rates between recognized liabilities and the investment instruments that back them up.

On the other hand, in a medium-term analysis encompassing the 2019–2023 period, the

Table S-4
Selected markets: overview of the structure of investment portfolios broken down by asset type, 2022–2023
(%)

Asset type	Eurozone		United States		Japan		United Kingdom		Spain		Brazil		Mexico	
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Fixed income	49.1%	49.2%	62.3%	60.9%	50.3%	47.4%	49.5%	52.9%	72.5%	72.8%	9.3%	8.9%	78.7%	79.6%
Equities	18.6%	18.6%	13.6%	14.3%	5.9%	6.9%	5.9%	4.5%	7.4%	7.2%	3.6%	3.7%	17.2%	17.1%
Loans	5.1%	5.3%	10.5%	10.7%	7.4%	6.4%	10.0%	10.8%	0.7%	1.1%	-	-	1.8%	1.4%
Cash and deposits	1.9%	2.0%	4.6%	5.5%	3.0%	3.4%	10.2%	10.0%	5.1%	5.1%	0.3%	0.2%	0.9%	0.5%
Real estate	1.7%	1.5%	0.5%	0.5%	1.6%	1.5%	2.0%	0.3%	4.0%	3.6%	0.0%	0.0%	1.3%	1.3%
Mutual funds	20.5%	20.5%	0.0%	0.0%	2.4%	2.5%	22.3%	17.3%	12.6%	12.1%	86.7%	87.0%	0.0%	0.0%
Other investments	3.1%	2.8%	8.5%	8.1%	29.5%	31.8%	0.1%	4.2%	-2.2%	-2.1%	0.1%	0.1%	0.1%	0.1%

Source: MAPFRE Economics (with data from EIOPA, ICEA, BoE, LIAJ, NAIC, SUSEP, and CNSF)

Table S-5
Selected markets: asset reassignment, 2019–2023
(percentage point change)

Asset type	United Kingdom	Japan	Eurozone	United States	Spain	Brazil	Mexico
Fixed income	1.1	-0.9	-8.2	-4.3	-2.6	0.4	-0.3
Equities	-4.5	2.1	5.5	1.2	1.6	1.0	1.4
Loans	0.9	-1.3	0.8	0.1	0.4	-	-0.7
Cash and deposits	1.3	0.2	0.0	1.6	-1.3	0.0	-0.3
Real estate	-1.5	-0.1	0.0	-0.1	0.1	0.0	-0.1
Mutual funds	-1.3	0.7	1.7	-	3.0	-1.4	-
Other investments	4.2	-0.8	0.1	1.4	-1.1	0.0	0.0

Source: MAPFRE Economics (with data from EIOPA, ICEA, BoE, LIAJ, NAIC, SUSEP, and CNSF)

reduction in the proportion of fixed income in the Eurozone (-8.2 pp) and the increase in equities (+5.5 pp) during that period (see Table S-5) are worth particular mention. In particular, the U.S. market has seen a drop in the weight of fixed income of 4.3 pp, with a 1.6-pp increase in cash and deposits (seeing significant increases in their profitability, with the Fed's aggressive rate hikes in 2022 and 2023) and, to a lesser extent, the 1.2-pp increase in equities.

Finally, to round off this information, Table S-6 provides details in the changes in the weight of fixed income broken down between sovereign and corporate fixed income between 2019 and 2023, for markets where this is possible. In addition, the third section of this report includes an analysis of investment portfolios from a selection of international insurance groups, with the information taken from their consolidated accounts referring to the close of 2023. This analysis also offers comparative information about the rating of fixed-income assets and the changes compared to the previous year, in order to provide a more in-depth view when comparing their risk profiles.

Table S-6
Selected markets: fixed-income reassignment, 2019–2023
(percentage point change)

Asset type	United Kingdom	Japan	Eurozone	United States	Spain
Corporate fixed income	-1.6	-1.1	-3.3	-4.6	1.4
Sovereign fixed income	2.7	0.2	-4.9	1.1	-4.0

Source: MAPFRE Economics (with data from EIOPA, ICEA, BoE, LIAJ, and NAIC)

1. An update of the valuation in relation to global savings

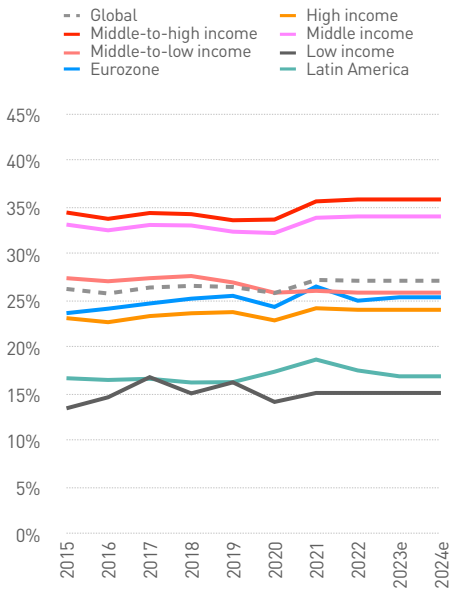
1.1 Global savings trend

This analysis looks at the global savings situation in a year marked by monetary and fiscal policy transition. In 2023, monetary policy interest rates remained high, although imminent decreases were expected, meaning the strong performance of the rest of the monetary variables maintained relatively lax financial conditions. On the other hand, although it was obvious that fiscal policy adjustments were on the horizon, based on the previous year's expectations, these failed to materialize. In contrast, the new global industrial policy, defense spending and the use of public savings to mitigate the effects of the energy crisis (such as subsidies and controlled prices) remained throughout 2023 and at the start of 2024.

In view of the above, the prediction made in 2022 in relation to 2023, as regards the end of the shift from public to private savings, giving rise to an adjustment to total savings, has yet to materialize. Thus, 2023 represented a continuation of the dynamics seen in 2022 (see Chart 1.1-a). That said, the monetary and fiscal adjustment will have to come in 2024; with this in mind, it is expected that our next report will reflect the dynamics that we anticipated at the time. For the time being, this report reviews and elaborates on the dynamics that began in 2022 and continued during 2023, and bases the changes in this trend on what we might expect to see in 2024.

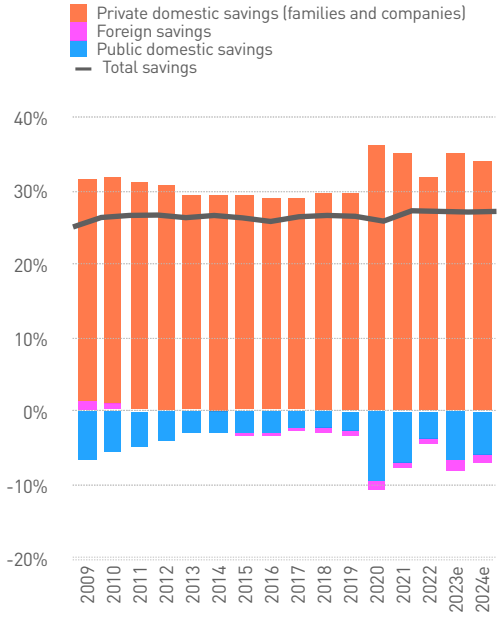
As illustrated in Chart 1.1-a, total gross savings remain, in global terms, practically unchanged, coming to around 28% of global

Chart 1.1-a
Global: total gross savings by income level
(% GDP)



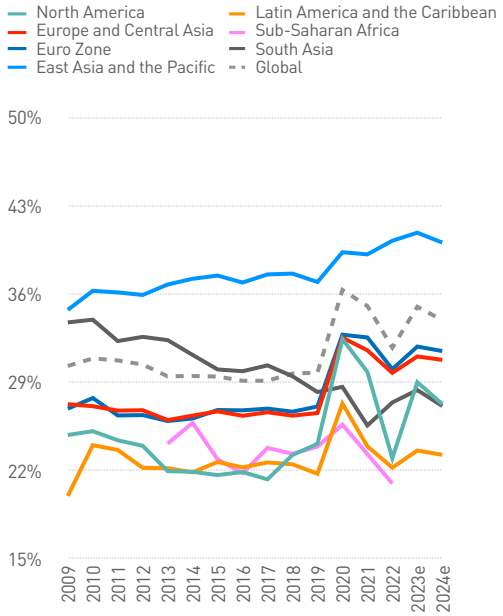
Source: MAPFRE Economics (with data from the World Bank and the UN)
(e) Estimated

Chart 1.1-b
Global: total savings breakdown
(% GDP)



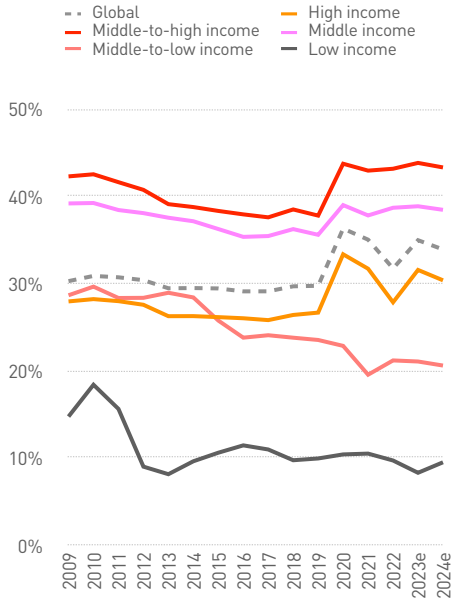
Source: MAPFRE Economics (based on data from the World Bank)
(e) Estimated

Chart 1.1-c
Global: private savings by economic region (% GDP)



Source: MAPFRE Economics (based on data from the World Bank)
(e) Estimated

Chart 1.1-d
Global: private savings by income level (% GDP)



Source: MAPFRE Economics (own estimates of "Modigliani Savings" and data from the World Bank)
(e) Estimated

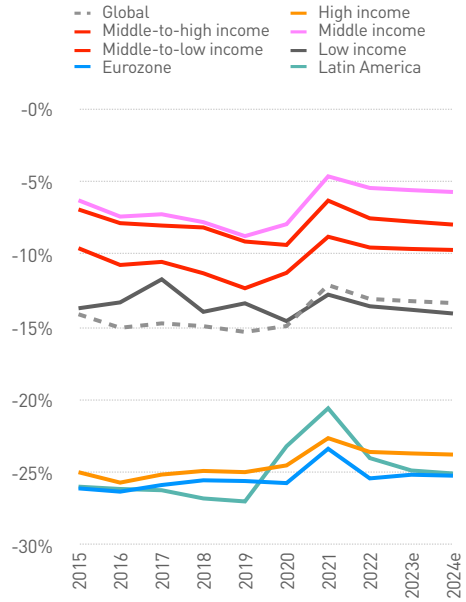
GDP in 2023, as a result of private savings that stand at around 35% and dissaving in the public sector of 7%, which is reflected in transfers to maintain agents' income. It is worth noting that, as reflected in Chart 1.1-b, this is the fourth consecutive year in which a similar figure has been recorded, explaining the strong compensatory role at an aggregate and global level seen in public sector transfers to maintain the savings buffer.

Based on the information contained in Chart 1.1-a, we can see how global savings are once again in an interim state, between strong total savings (>35% of GDP) in middle-to-high income countries (emerging Asian countries) and very high-income regions (such as the Eurozone) or low-to-middle income regions with total savings accounting for less than 30% of GDP. Analyzing the role played by the savings generated by the private sector (see Chart 1.1-c), it can be seen that generation capacity increases with level of income, and that this feature has also been exacerbated at a global level in 2023, and in particular in the United States and Eurozone. Considering this dynamic, it can be seen that Latin America has experienced a very slight upward adjustment in terms of domestic private savings; however, they have failed to return to 2020 levels. At the opposite end of the spectrum, emerging Asia has maintained incessant growth in its private savings, coming to 40% of GDP in 2023, comfortably above the financing needs of its capital stock, and therefore excelling in its capacity to export savings to the world (see Chart 1.1-d).

1.2 The savings gap

When comparing the gross savings of each region to what, in theory (according to Modigliani's life cycle), they would need based on their population structure, it can also be seen that the continuity mentioned in last year's report remains. As illustrated in Chart 1.2, using the structural savings measurement for each economic region (*Modigliani savings*, in our analyses), total

Chart 1.2
Global: total savings gap by income level
(% GDP)



Source: MAPFRE Economics (own estimates of "Modigliani Savings" and data from the World Bank)
(e) Estimated

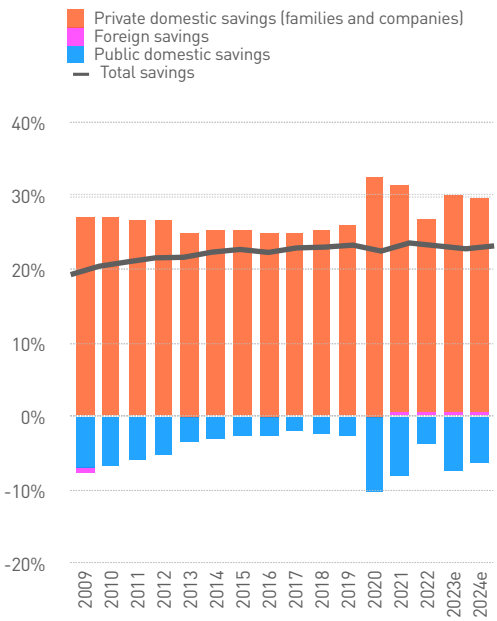
savings are subtracted to obtain the *gross total savings gap*. In this way, it can be seen that the structural savings deficit has remained practically unchanged since 2020; this can be interpreted in two ways. The first: that there was an improvement as a result of COVID-19, to the extent that regions with higher incomes received more funds to increase their savings, while the figures for older groups dropped during the pandemic; at the same time, their public sectors had the capacity to cope with the shock and provide substitute public savings that, as previously indicated, have yet to be corrected. And, the second: that the structural savings deficit remains globally higher than 10% and, given the fiscal framework and correction in global activity expected over the next two years, it is most likely that this will increase marginally, to a greater extent in lower-income countries. The most extreme cases underline these last statements: the savings gap in the highest-income countries is very high (close to 25%), almost double what they currently have to sustain their investment and public accounts, given the age structure of their populations.

1.3 Global savings structure

As seen when comparing Chart 1.1-b and Chart 1.3-a, the global savings structure seems to be dominated by the savings structure of countries that have already transcended their demographic dividend. In these countries, private savings account for less than 30% of GDP, while public savings supplement it with approximately 6%. This means that, on average, these countries are neutral in their financial relationship with the rest of the world (they are neither financed nor do they finance). What's more, these countries have the largest structural savings deficit, as previously noted.

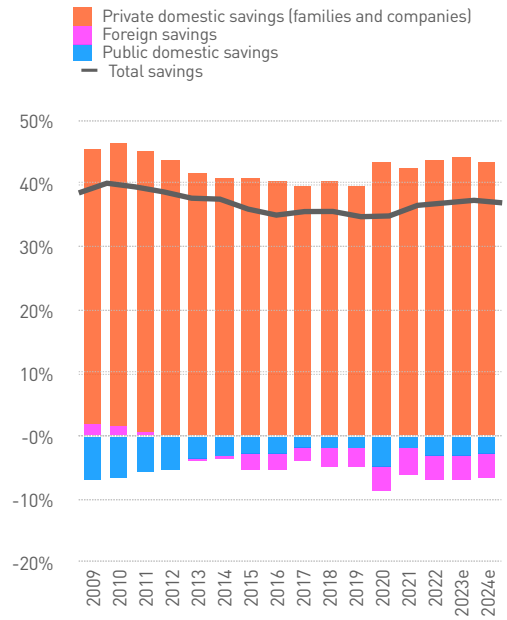
In other words, the image of global savings is occupied by higher-income countries, with aging populations and high old-age dependency ratios. The contribution made by other regions with different demographic condi-

Chart 1.3-a
Global: total savings breakdown, countries post demographic dividend
(% GDP)



Source: MAPFRE Economics (based on data from the World Bank)
(e) Estimated

Chart 1.3-b
Global: total savings breakdown, countries advanced in demographic dividend (% GDP)

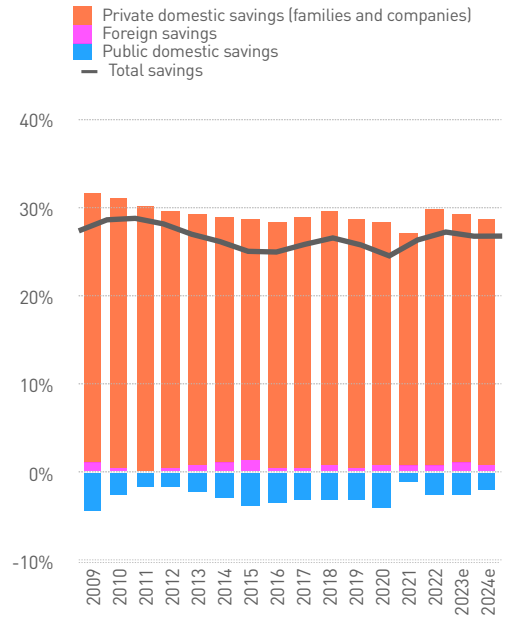


Source: MAPFRE Economics (based on data from the World Bank)
(e) Estimated

tions is smaller, but also relevant. For example, Chart 1.3-b shows total savings (private, public, and external) of the countries at an advanced stage in their demographic dividend. These countries are growing rapidly as they are investing significantly, thanks to the fact that they achieve high levels of savings. Most of them are emerging Asian countries. Private savings in these countries remain above 45%, and they export savings to the world equivalent to 3% and 4% of their GDP. This picture, however, will gradually change over time, as their populations mature and their level of income increases.

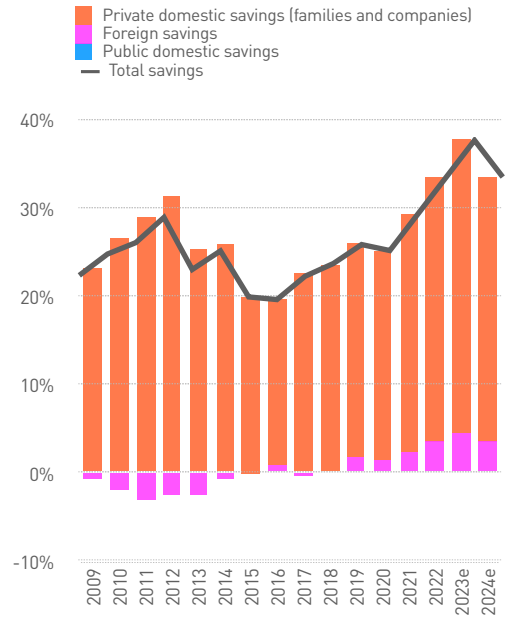
Finally, there are countries that are not yet fully enjoying their demographic dividend. As reflected in Charts 1.3-c and 1.3-d, these countries have young and fertile populations, with low adult dependency rates, but with high youth dependency; this is likely to be corrected over time and, under the right development conditions, turn them into providers of savings in the future.

Chart 1.3-c
Global: total savings breakdown, countries in initial phase of demographic dividend (% GDP)



Source: MAPFRE Economics (based on data from the World Bank)
(e) Estimated

Chart 1.3-d
Global: total savings breakdown, countries pre-demographic dividend (% GDP)



Source: MAPFRE Economics (based on data from the World Bank)
(e) Estimated

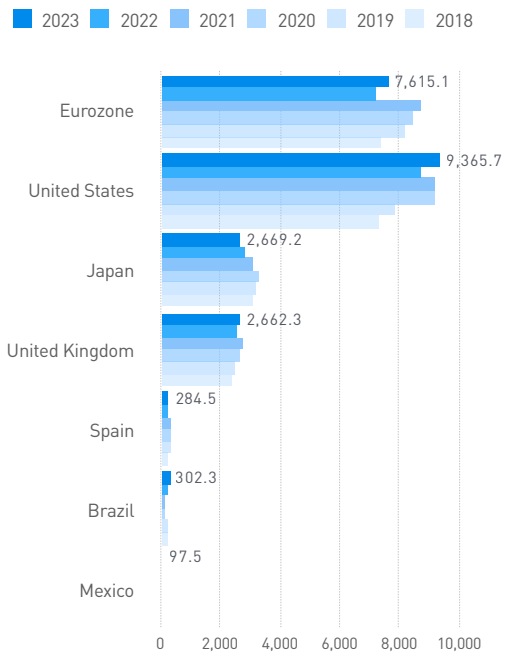
In short, the correction anticipated for 2023, which would have implied a reduction in global savings due to changes in activity, monetary and fiscal policy, has not yet materialized, but is expected to happen in 2024. The effect of this will be bigger in countries with the lowest incomes. There is currently a significant yet stable savings gap, which has been the case since 2020, when it was adjusted downwards. It is foreseeable that, starting in 2024, this gap will deteriorate again, especially among countries whose demographic dividend is worst. In the long term, many regions will see a widening of their deficits and even the current global savings champions (the emerging Asian countries) will lose strength when it comes to generating savings. There remains, however, the hope that the group of even more fertile countries will achieve a demographic dividend and manage to replace part of the savings that will be lost under the circumstances indicated above.

2. Structure of insurance industry investment portfolios in selected markets

As illustrated in Chart 2-a, investments by the insurance markets taken into account for the analysis in this report represented, on aggregate, a total amount of 23 trillion euros in 2023. Furthermore, it is worth noting that, in 2022 and 2023, the proportion of investments relative to GDP stabilized following the anomaly seen in 2020 due to the drop in GDP caused by the economic shutdowns on account of COVID-19 (see Chart 2-b).

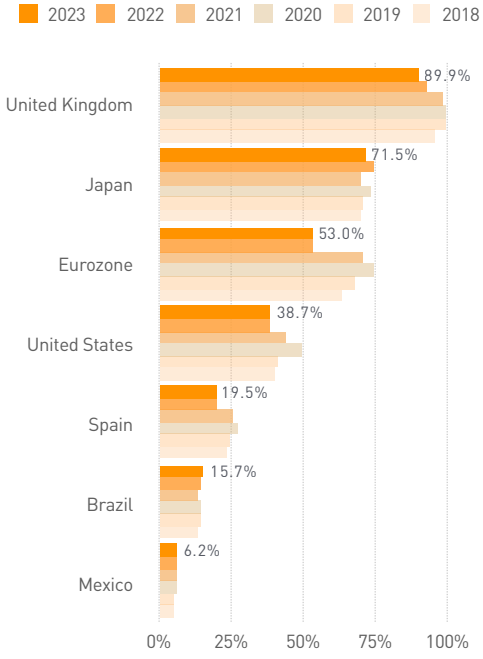
The information that was used as a basis for the analysis was provided directly by the relevant national or regional supervisory agencies. In case of the information for the Eurozone market, the source was the European Insurance and Occupational Pensions Authority (EIOPA); for the United Kingdom, the information comes from the Bank of England (BoE), and in Spain, information obtained from the ICEA has also been used to analyze the evolution of the aggregate portfolio structure between 2010 and 2023. In the case of the United States insurance market, the information was taken from that published by the National Association of Insurance Commissioners (NAIC). In Latin America, in the case of Brazil, the source of the data was the Superintendency of Private Insurance (SUSEP), and for the Mexican market, the National Commission for Insurance and Securities (CNSF). Finally, in Japan, information from Life insurance associations (The Life Insurance Association of Japan, LIAJ) and

Chart 2-a
Selected markets: investments managed by the insurance industry, 2018–2023
(billions of euros)



Source: MAPFRE Economics (with data from EIOPA, ICEA, BoE, NAIC, LIAJ, SUSEP and CNSF)

Chart 2-b
Selected markets: investments managed by the insurance industry compared with GDP, 2018–2023
(% of GDP)



Source: MAPFRE Economics (with data from EIOPA, ICEA, BoE, NAIC, LIAJ, SUSEP, CNSF, and IMF)

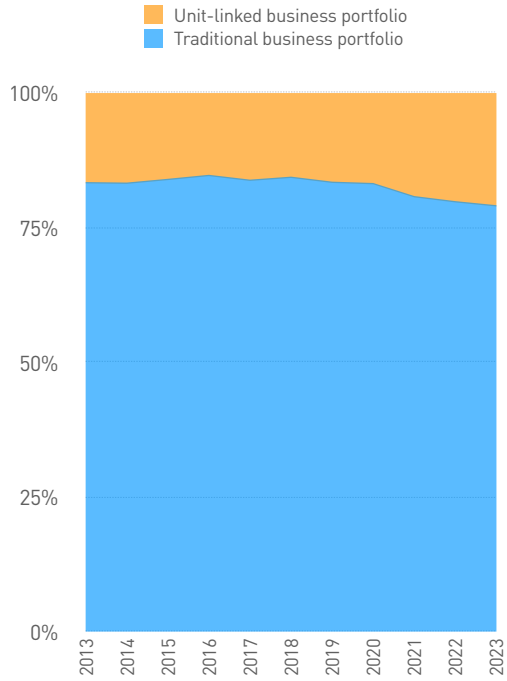
Non-Life insurers (The General Insurance Association of Japan, GIAJ) has been combined.

Based on this data, the following sections provide a description of the evolution of investment portfolios in the insurance markets in the Eurozone, the United States, Japan, the United Kingdom, Spain, Brazil, and Mexico, with regard to the last decade. In particular, in the case of the Eurozone, United Kingdom, and Spanish markets, they also show a breakdown of the evolution of investment portfolios in terms of both traditional and unit-linked insurance business over the same period.

2.1 Eurozone

For the totality of the insurance markets included in the Eurozone (Austria, Belgium, Cyprus, Croatia, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia, and Spain), Table 2.1-a and Chart 2.1-a show the evolution of investment portfolios broken down by type of insurance business (distinguishing between traditional and unit-linked business) between 2013 and 2023. As can be seen from this information, throughout the 2013–2023 period, the unit-linked insurance portfolio increased compared to 2013, from 16.5% to 20.8%. The new low interest rate environment in the Eurozone, together with the good performance of equity markets in recent years, have increased the demand for products in which the policyholder assumes the investment risk. However, this business faces competition in the market from investment products issued by other financial institutions, such as banks or mutual fund and pension fund managers.

Chart 2.1-a
Eurozone: structure of investment portfolios broken down by type of insurance business, 2013–2023
(%)



Source: MAPFRE Economics (with data from EIOPA)

Meanwhile, regarding the change in the structure of the traditional investment portfolio by asset type, the recovery of the proportion of investments in equities is worth particular mention, from the low point of 12.2% in 2017, to 18.6% in 2023, an increase of 6.4 percentage points (pp). In any case, it should be noted that in the Eurozone (and in all the insurance markets), fixed income investments continue to maintain a preeminent po-

Table 2.1-a
Eurozone: structure of investment portfolios broken down by type of insurance business, 2013–2023
(%)

Type of business	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Traditional business portfolio	83.5%	83.4%	84.1%	84.8%	83.9%	84.5%	83.6%	83.3%	80.9%	79.9%	79.2%
Unit-linked business portfolio	16.5%	16.6%	15.9%	15.2%	16.1%	15.5%	16.4%	16.7%	19.1%	20.1%	20.8%

Source: MAPFRE Economics (with data from EIOPA)

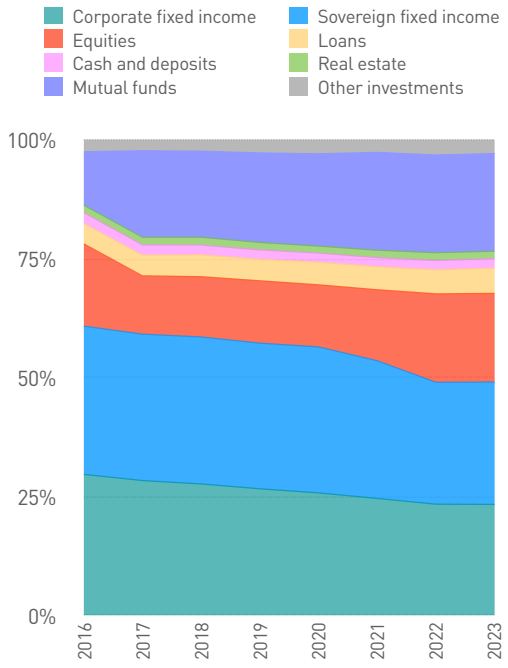
Table 2.1-b
Eurozone: structure of traditional business investment portfolio broken down by asset type, 2016–2023
(%)

Asset type	2016	2017	2018	2019	2020	2021	2022	2023
Fixed income	60.9%	59.2%	58.7%	57.4%	56.6%	53.6%	49.1%	49.2%
Corporate fixed income	*29.8%*	*28.5%*	*27.8%*	*26.7%*	*25.9%*	*24.7%*	*23.5%*	*23.5%*
Sovereign fixed income	*31.2%*	*30.8%*	*30.9%*	*30.6%*	*30.7%*	*28.9%*	*25.6%*	*25.7%*
Equities	17.3%	12.2%	12.7%	13.1%	13.0%	14.9%	18.6%	18.6%
Loans	4.3%	4.4%	4.6%	4.5%	4.8%	4.9%	5.1%	5.3%
Cash and deposits	2.3%	2.1%	2.1%	2.0%	1.9%	1.9%	1.9%	2.0%
Real estate	1.6%	1.6%	1.7%	1.6%	1.5%	1.6%	1.7%	1.5%
Mutual funds	11.2%	18.2%	18.1%	18.8%	19.4%	20.5%	20.5%	20.5%
Other investments	2.4%	2.2%	2.3%	2.7%	2.9%	2.6%	3.1%	2.8%

Source: MAPFRE Economics (with data from EIOPA)

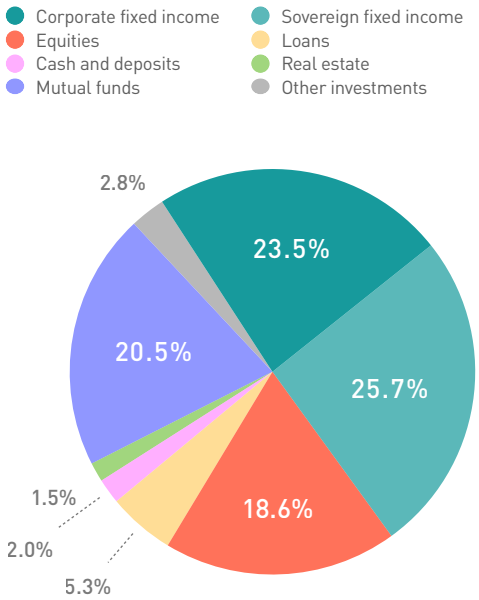
sition, to the extent that the insurance business model entails the need to implement liability-driven investment strategies, in order to achieve an adequate match in terms of maturity and interest rates between the liabilities assumed and the investment instruments that support them. The entry into force of the Solvency II regulatory framework (2016) and the capital charges associated with the different types of assets under this framework have reaffirmed this idea, rewarding insurance companies that achieve a better match with lower capital charges. It can also be seen that, in 2017, there was a signif-

Chart 2.1-b
Eurozone: structure of traditional business investment portfolio broken down by asset type, 2016–2023
(%)



Source: MAPFRE Economics (with data from EIOPA)

Chart 2.1-c
Eurozone: structural breakdown of traditional business investment portfolios by asset type, 2023
(%)



Source: MAPFRE Economics (with data from EIOPA)

Table 2.1-c
Eurozone: heat map of the evolution of the credit quality of the bond portfolio

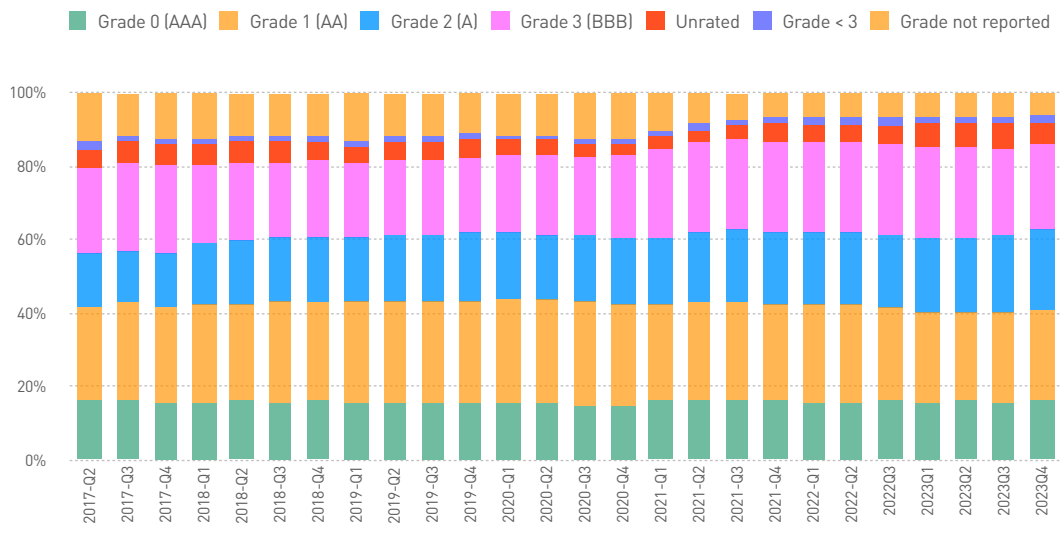
Period	Grade 0 (AAA)	Grade 1 (AA)	Grade 2 (A)	Grade 3 (BBB)	No rating	Unrated Grade < 3	Grade not reported
2017-Q2	16.4%	25.4%	14.1%	23.3%	5.7%	2.0%	13.2%
2017-Q3	16.1%	26.9%	14.2%	23.9%	5.2%	1.9%	11.7%
2017-Q4	15.7%	25.9%	14.4%	24.0%	5.7%	1.7%	12.6%
2018-Q1	15.6%	26.7%	16.5%	21.5%	5.8%	1.6%	12.3%
2018-Q2	15.9%	26.8%	17.2%	20.7%	6.0%	1.6%	11.9%
2018-Q3	15.7%	27.1%	17.6%	20.5%	5.5%	1.6%	11.9%
2018-Q4	16.0%	27.2%	17.3%	20.9%	5.2%	1.4%	12.0%
2019-Q1	15.7%	27.3%	17.6%	19.9%	5.0%	1.4%	13.1%
2019-Q2	15.6%	27.3%	18,1%	20.7%	5.3%	1.2%	11.8%
2019-Q3	15.5%	27.4%	18.0%	20.9%	5.1%	1.2%	11.8%
2019-Q4	15.8%	27.5%	18.6%	20.8%	4.5%	1.4%	11.5%
2020-Q1	15.9%	28.1%	17.9%	21.0%	4.2%	1.2%	11.8%
2020-Q2	15.4%	28.2%	18.1%	21.2%	4.3%	1.3%	11.6%
2020-Q3	15.1%	27.8%	18.2%	21.4%	3.5%	1.4%	12.5%
2020-Q4	15.1%	27.3%	18.1%	22.3%	3.3%	1.4%	12.6%
2021-Q1	16.1%	26.1%	18.5%	24.0%	3.6%	1.6%	10.1%
2021-Q2	16.5%	26.4%	19.0%	24.6%	3.4%	1.6%	8.5%
2021-Q3	16.5%	26.6%	19.4%	24.6%	3.9%	1.7%	7.3%
2021-Q4	16.3%	26.2%	19.5%	24.4%	5.3%	1.7%	6.6%
2022-Q1	15.5%	27.1%	19.3%	25.0%	4.4%	1.6%	7.1%
2022-Q2	15.5%	26.7%	19.8%	24.7%	4.4%	1.8%	7.1%
2022-Q3	16.1%	25.6%	19.7%	24.8%	5,0%	1.9%	6.9%
2023-Q1	15.9%	24.3%	20.2%	24.7%	6.4%	1.8%	6.6%
2023-Q2	16.5%	24.0%	20.3%	24.2%	6.4%	1.9%	6.7%
2023-Q3	15.6%	24.6%	20.8%	23.7%	6.8%	1.8%	6.7%
2023-Q4	16.2%	25.0%	21.5%	23.3%	6.0%	1.6%	6.3%
2017 Q4 - 2023 Q4 (var p.p)	0.5	-0.9	7.1	-0.7	0.3	-0.1	-6.2

Source: MAPFRE Economics (with data from EIOPA)

icant increase in assets managed through mutual funds, which benefited from the application of the so-called "look through approach," which allows their use with capital charges corresponding to the assets managed through the fund (see Table 2.1-b and Chart 2.1-b).

Finally, Chart 2.1-c illustrates the structural breakdown of the traditional business in-

Chart 2.1-d
Eurozone: credit quality of the bond portfolio



Source: MAPFRE Economics (with data from EIOPA)

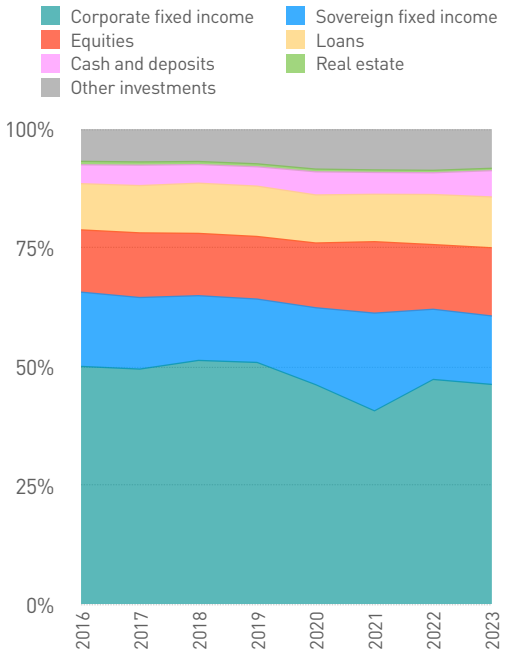
vestment portfolio in the Eurozone by asset type. This information includes a breakdown of fixed income investments, specifying that 23.5% of the total investment portfolio represented corporate fixed income investments, while 25.7% of the total took the form of sovereign fixed income investments.

When it comes to credit quality, as part of a medium-term analysis (2017–2023) of the portfolios of insurance companies in the European Union,[3] it can be seen that credit quality grade 2 bonds (equivalent to A) have experienced the biggest increase in their weight, up by 7.1 percentage points (pp) since the end of the first half of 2017 (see Table 2.1-c and Chart 2.1-d). Also noteworthy is the significant drop in the weight of the fixed income portfolio with no credit rating or with an unreported rating, which dropped by 6.2 pp.

2.2 United States

In terms of the U.S. insurance market, the change in the structure of the traditional business investment portfolio by asset type between 2016 and 2023 is reflected in Table 2.2 and Chart 2.2-a. As can be seen in this information, unlike the trend seen in the Eurozone insurance market, in the case of the U.S. market, fixed income investments dropped by 5.0 percentage points during the period subject to analysis (2016–2023), with corporate fixed income securities bearing the brunt. As illustrated in Chart 2.2-b, using data from 2023, 46.5% of the total portfolio was in corporate fixed income investments, while sovereign fixed income investments represented 14.4% of the total portfolio. In turn, equity accounted for 14.3% of the total portfolio, and the fact that its weight in-

Chart 2.2-a
United States: structure of traditional business investment portfolio broken down by asset type, 2016–2023
(%)



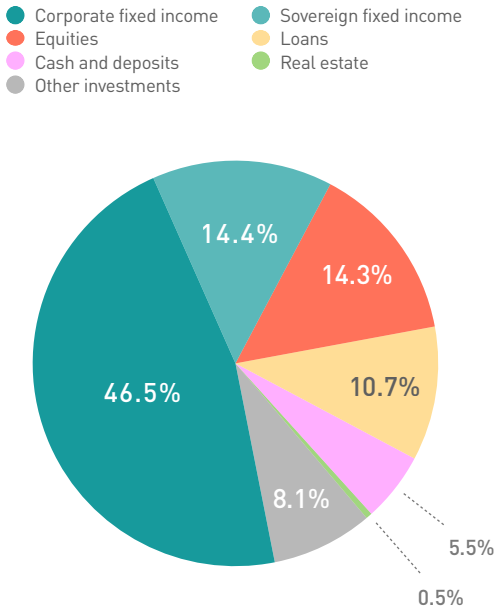
Source: MAPFRE Economics (with data from NAIC)

Table 2.2
United States: structure of traditional business investment portfolio broken down by asset type, 2016–2023
(%)

Asset type	2016	2017	2018	2019	2020	2021	2022	2023
Fixed income	65.9%	64.7%	65.1%	64.4%	62.6%	61.5%	62.3%	60.9%
Corporate fixed income	*50.3%*	*49.7%*	*51.5%*	*51.1%*	*46.4%*	*40.9%*	*47.5%*	*46.5%*
Sovereign fixed income	*15.6%*	*15.0%*	*13.6%*	*13.3%*	*16.2%*	*20.5%*	*14.8%*	*14.4%*
Equities	13.1%	13.6%	13.1%	13.2%	13.6%	15.0%	13.6%	14.3%
Loans	9.7%	9.9%	10.6%	10.6%	10.1%	10.0%	10.5%	10.7%
Cash and deposits	4.0%	4.3%	3.9%	4.1%	4.9%	4.6%	4.6%	5.5%
Real estate	0.7%	0.7%	0.6%	0.6%	0.6%	0.5%	0.5%	0.5%
Other investments	6.6%	6.8%	6.7%	7.2%	8.3%	8.4%	8.5%	8.1%

Source: MAPFRE Economics (with data from NAIC)

Chart 2.2-b
United States: structural breakdown of traditional business investment portfolios by asset type, 2023
(%)



Source: MAPFRE Economics (with data from NAIC)

creased by 1.2 percentage points during the 2016–2023 period is significant.

In the particular case of the U.S. insurance market, it is worth noting that its credit rating was downgraded by Fitch to AA+ in August 2023[4] (S&P did so in 2011), while Moody's[5] could follow suit based on its September 2024 warning[6] that it would do so if no measures were taken to reduce the deficit. It should be noted that these rating downgrades, or simply outlooks, can influence insurance companies' decision-making when reweighting their portfolios.

2.3 Japan

The evolution of the investment portfolio structure in the Japanese insurance market between 2013 and 2023 is illustrated in Table 2.3 and Chart 2.3-a. An important feature of this aggregate portfolio is the high percentage of foreign investments held by Japanese insurance companies (24.8% at the end of 2023), which has also seen an increase of 7.3 percentage points over the decade. This represented a 68% increase on the volume of these investments in 2013.

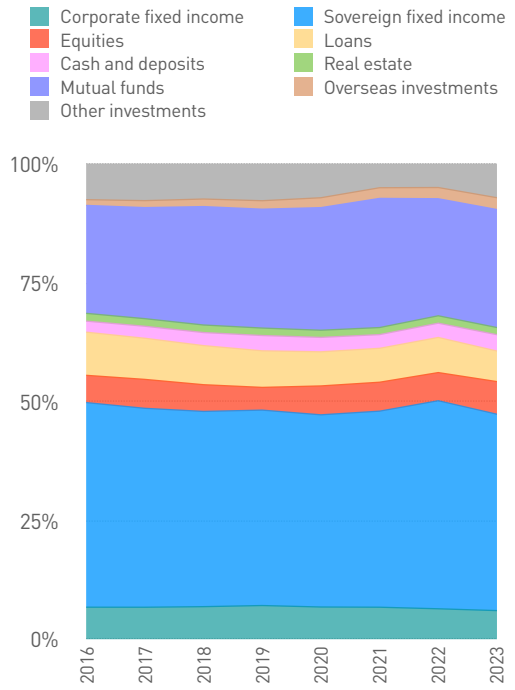
Furthermore, as can be seen in Chart 2.3-b, Japanese insurance companies are an important source of investment for Japanese sovereign bonds and, in particular, for "su-

Table 2.3
Japan: structure of traditional business investment portfolio broken down by asset type, 2013–2023
(%)

Asset type	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Fixed income	53.8%	51.1%	51.1%	49.9%	48.7%	48.0%	48.3%	47.3%	48.1%	50.3%	47.4%
Corporate fixed income	*7.1%*	*6.8%*	*6.9%*	*6.9%*	*6.9%*	*7.0%*	*7.2%*	*6.9%*	*6.9%*	*6.5%*	*6.2%*
Sovereign fixed income	*46.7%*	*44.3%*	*44.1%*	*43.0%*	*41.8%*	*41.0%*	*41.1%*	*40.4%*	*41.2%*	*43.7%*	*41.3%*
Equities	5.1%	6.2%	5.4%	5.7%	6.1%	5.6%	4.8%	6.1%	6.1%	5.9%	6.9%
Loans	10.9%	10.0%	9.5%	9.1%	8.6%	8.2%	7.7%	7.2%	7.1%	7.4%	6.4%
Cash and deposits	2.0%	2.5%	2.4%	2.3%	2.5%	2.7%	3.2%	3.0%	2.9%	3.0%	3.4%
Real estate	1.8%	1.7%	1.7%	1.6%	1.6%	1.6%	1.6%	1.5%	1.5%	1.6%	1.5%
Overseas investments	17.5%	20.0%	21.4%	22.7%	23.3%	24.9%	25.0%	25.8%	27.1%	24.6%	24.8%
Mutual funds	0.7%	0.9%	1.0%	1.2%	1.5%	1.6%	1.8%	2.1%	2.2%	2.4%	2.5%
Other investments	8.1%	7.6%	7.5%	7.4%	7.7%	7.3%	7.7%	7.0%	4.9%	4.9%	7.0%

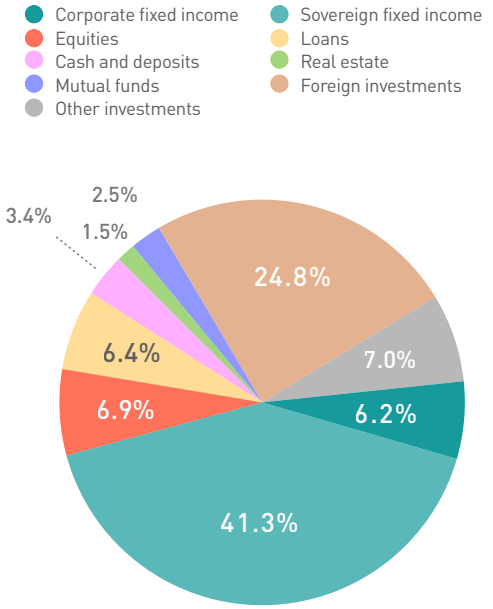
Source: MAPFRE Economics (with data from LIAJ)

Chart 2.3-a
Japan: structure of traditional business investment portfolio broken down by asset type, 2016–2023
(%)



Source: MAPFRE Economics (with data from LIAJ)

Chart 2.3-b
Japan: structural breakdown of traditional business investment portfolios by asset type, 2023
(%)



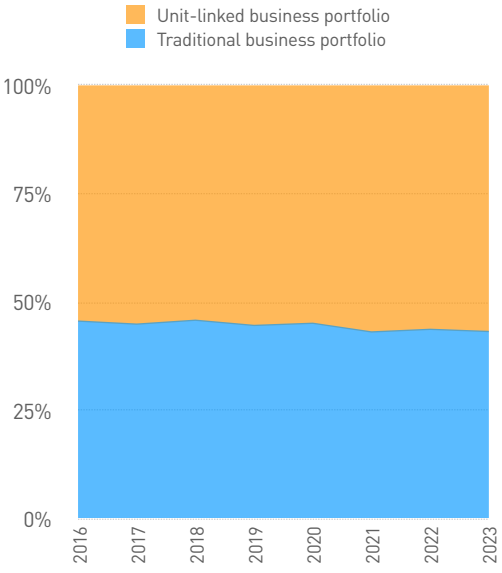
Source: MAPFRE Economics (with data from LIAJ)

per-long-term government bonds" (JGBs).[7] However, despite the recent rate hikes by the Bank of Japan, the current low interest rate environment has made it very difficult to maintain the return on investment while aligning the duration of assets and liabilities, keeping in mind that old portfolios with high guaranteed interest rates still remain. The reaction from insurance companies in this environment has been to increase their investments overseas, mainly in U.S. bonds, but also from the United Kingdom and emerging Asia, in search of higher yields to meet their guaranteed interest obligations. This has caused insurers in this sector to be more exposed to international markets and to the risk of exchange rate fluctuations.

2.4 United Kingdom

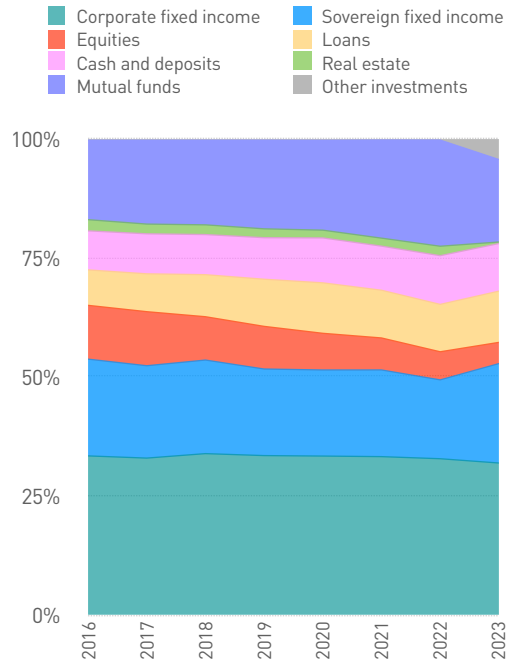
Table 2.4-a and Chart 2.4-a reflect the evolution of the investment portfolio by insurance business type (distinguishing between tradi-

Chart 2.4-a
United Kingdom: structure of investment portfolios broken down by type of insurance business, 2016–2023
(%)



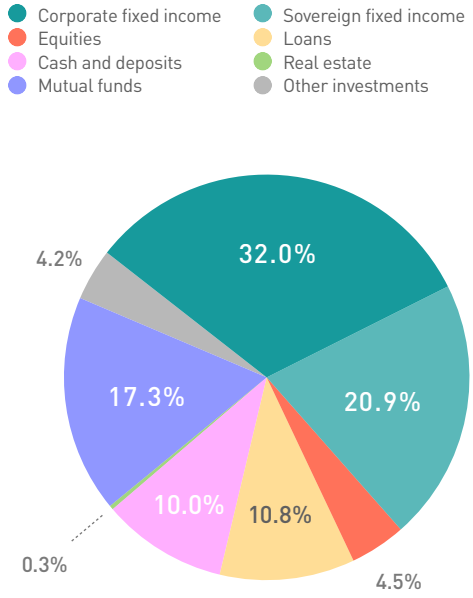
Source: MAPFRE Economics (with data from EIOPA)

Chart 2.4-b
United Kingdom: structure of traditional business investment portfolio broken dow by asset type, 2016–2023
(%)



Source: MAPFRE Economics (with data from BoE)

Chart 2.4-c
United Kingdom: structural breakdown of traditional business investment portfolios by asset type, 2023
(%)



Source: MAPFRE Economics (with data from BoE)

tional business and the unit-linked business) between 2016 and 2023 in the case of the UK insurance market. In this case, given the United Kingdom's departure from the European Union, companies operating in this market no longer report to EIOPA, meaning that the data now must be obtained from the Bank of England. In contrast with the data for the combined Eurozone markets, in the case of the United Kingdom, in the past there was a trend toward an increase in the proportion of the unit-linked investment portfolio compared to the traditional business portfolio, an idiosyncrasy of this market. However, in recent years, its weight in the total portfolio appears to have stabilized at around 56%, which still remains the highest share of the markets analyzed in this report.

Regarding the change in the structure of the traditional investment portfolio by type of assets in the United Kingdom between 2016 and 2023 (see Table 2.4-b and Chart 2.4-b), in the absence of a breakdown of the composition of mutual funds ("look through"), it can be seen that the weight of fixed income bonds is relatively stable, standing at 52.9% at the end of the period. However, in 2023 the weight of sovereign fixed income increased to 20.9% (16.6% in 2022); this may have been influenced by the new interest rate environment given the restrictive monetary policy applied

Table 2.4-a
United Kingdom: structure of investment portfolios broken down by type of insurance business, 2016–2023
(%)

Type of business	2016	2017	2018	2019	2020	2021	2022	2023
Traditional business portfolio	45.8%	45.1%	46.0%	44.8%	45.3%	43.3%	43.9%	43.4%
Unit-linked business portfolio	54.2%	54.9%	54.0%	55.2%	54.7%	56.7%	56.1%	56.6%

Source: MAPFRE Economics (with data from EIOPA)

Table 2.4-b
United Kingdom: structure of traditional business investment portfolio broken down by asset type, 2016–2023
(%)

Asset type	2016	2017	2018	2019	2020	2021	2022	2023
Fixed income	53.9%	52.5%	53.7%	51.8%	51.6%	51.6%	49.5%	52.9%
Corporate fixed income	*33.5%*	*33.1%*	*34.0%*	*33.6%*	*33.5%*	*33.4%*	*32.9%*	*32.0%*
Sovereign fixed income	*20.3%*	*19.4%*	*19.7%*	*18.2%*	*18.1%*	*18.2%*	*16.6%*	*20.9%*
Equities	11.3%	11.4%	9.1%	9.0%	7.7%	6.7%	5.9%	4.5%
Loans	7.5%	8.0%	8.8%	9.9%	10.6%	10.0%	10.0%	10.8%
Cash and deposits	8.2%	8.4%	8.4%	8.7%	9.4%	9.3%	10.2%	10.0%
Real estate	2.3%	2.0%	2.0%	1.9%	1.6%	1.7%	2.0%	0.3%
Mutual funds	16.7%	17.6%	17.8%	18.6%	18.9%	20.6%	22.3%	17.3%
Other investments	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	4.2%

Source: MAPFRE Economics (with data from BoE)

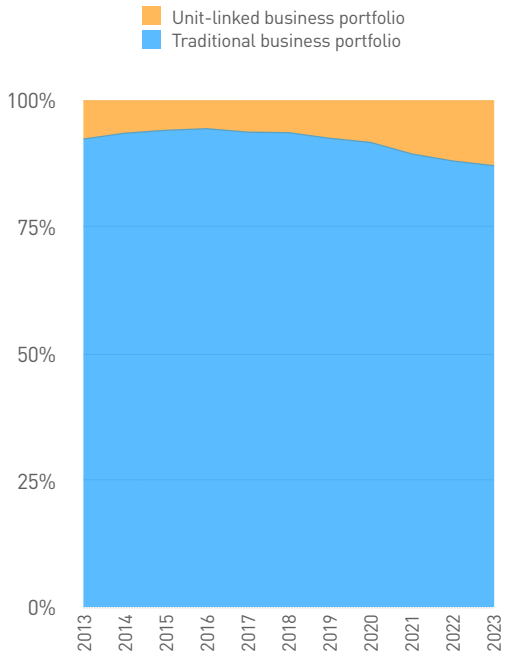
by the Bank of England in its fight against the upturn in inflation in 2022–2023. It is worth noting that, as in the case of the Eurozone, the entry into force of Solvency II saw a certain repositioning of investments, reducing the percentage share of equity.

Chart 2.4-c illustrates the structural breakdown of the traditional business investment portfolio by asset type in the United Kingdom market in 2023. This information allows for the identification of the relative composition of fixed income investments, specifying that 32% of the total investment portfolio represented corporate fixed income investments, while 20.9% of the total portfolio took the form of sovereign fixed income investments. This structure contrasted with the predominant trend in the Eurozone and was closer to the behavior of the United States insurance market.

2.5 Spain

The Spanish insurance market continues to represent one of the smallest proportions of unit-linked investment portfolios in the Eurozone and the smallest in the sample we have analyzed, with a total of 12.8%. However, it is worth noting that, from 2016 (when they bottomed out at 5.5%) until 2023, they saw significant growth of 7.3 pp. Despite this, the percentage of these types of investments remains well below the average for the Eurozone, where, in 2023, they stood at 20.8% of total investments (see Table 2.5-a and Chart 2.5-a).

Chart 2.5-a
Spain: structure of investment portfolios broken down by type of insurance business, 2013–2023
(%)



Source: MAPFRE Economics (with data from EIOPA)

Table 2.5-a
Spain: structure of investment portfolios broken down by type of insurance business, 2013–2023
(%)

Type of business	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Traditional business portfolio	92.5%	93.6%	94.2%	94.5%	93.8%	93.7%	92.6%	91.8%	89.5%	88.1%	87.2%
Unit-linked business portfolio	7.5%	6.4%	5.8%	5.5%	6.2%	6.3%	7.4%	8.2%	10.5%	11.9%	12.8%

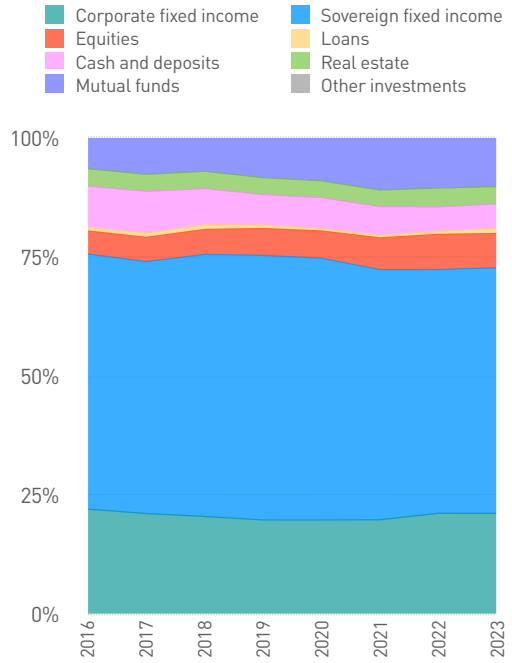
Source: MAPFRE Economics (with data from EIOPA)

Table 2.5-b
Spain: structure of traditional business investment portfolio broken down by asset type, 2016–2023
(%)

Asset type	2016	2017	2018	2019	2020	2021	2022	2023
Fixed income	75.7%	74.1%	75.7%	75.5%	74.9%	72.5%	72.5%	72.8%
Corporate fixed income	*22.1%*	*21.2%*	*20.6%*	*19.8%*	*19.8%*	*19.9%*	*21.2%*	*21.2%*
Sovereign fixed income	*53.6%*	*53.0%*	*55.1%*	*55.6%*	*55.0%*	*52.6%*	*51.2%*	*51.6%*
Equities	4.8%	5.1%	5.2%	5.6%	5.7%	6.7%	7.4%	7.2%
Loans	0.8%	0.9%	1.0%	0.8%	0.6%	0.5%	0.7%	1.1%
Cash and deposits	8.6%	8.8%	7.6%	6.4%	6.5%	6.0%	5.1%	5.1%
Real estate	3.7%	3.6%	3.6%	3.5%	3.5%	3.5%	4.0%	3.6%
Mutual funds	6.5%	7.8%	7.8%	9.1%	10.0%	12.7%	12.6%	12.1%
Other investments	-0.1%	-0.3%	-0.9%	-0.9%	-1.1%	-1.9%	-2.2%	-2.1%

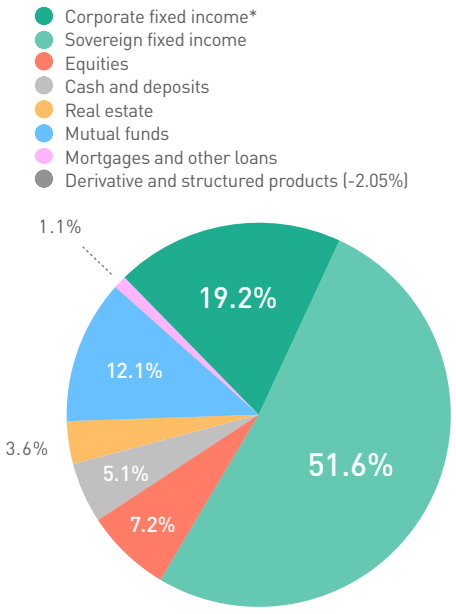
Source: MAPFRE Economics (with data from ICEA)

Chart 2.5-b
Spain: structure of traditional business investment portfolio broken down by asset type, 2016–2023
(%)



Source: MAPFRE Economics (with data from ICEA)

Chart 2.5-c
Spain: structural breakdown of traditional business investment portfolios by asset type, 2023
(%)



Source: MAPFRE Economics (based on ICEA data)

*Net value after deducting the effect of the valuation on derivative and structured products (-2.05%).

In terms of the changes shown in the structure of traditional business investment portfolios by asset type in Spain during 2016–2023 (reflected in Table 2.5-b and Chart 2.5-b), while fixed income investments accounted for 75.7% of the total in 2016, this percentage had dropped to 72.8% (-2.9 percentage points) by 2023, at the same time that the amount of cash and deposits in that period decreased (-3.5 percentage points). Not only was the entry into force of Solvency II potentially responsible for this shift, but also the monetary policy adopted by the European Central Bank (ECB), which cut the deposit facility to -40 basis points in 2016, and later to -50 bp (in contrast to the levels seen as a result of the ECB rate increases starting in July 2022, ultimately standing at 4% between September 2023 and June 2024), sharply penalizing economic agents' cash holdings at that time, without this being reflected in the cash and deposits item of the aggregate portfolio of the highest levels of short-term interest rates.

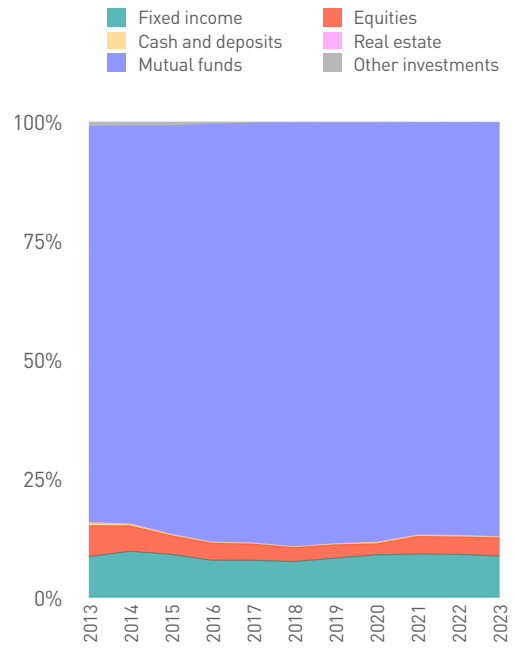
Finally, the breakdown of investments for 2023 illustrated in Chart 2.5-c shows the predominance of sovereign fixed income, which represented 51.6% of the total investment portfolio, while corporate fixed income accounted for 19.2% of total investments. Thus, the high percentage of investments in sovereign bonds in the Spanish insurance market, as well as the lower percentage of investments in equities compared to the Eurozone average, is worthy of note.

2.6 Brazil

The Brazilian insurance market is characterized by a high percentage of investments managed through mutual funds. As illustrated in Table 2.6 and Chart 2.6-a, investments in mutual funds accounted for 87.0% of the portfolio in 2023, with an increase of 3.7 percentage points over the 2013–2023 period.

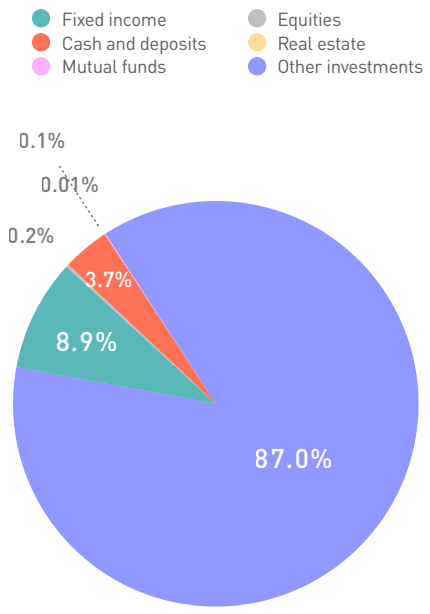
It should be noted that, in the case of the Brazilian insurance market, there is no up-

Chart 2.6-a
Brazil: structure of traditional business investment portfolio broken down by asset type, 2013–2023
(%)



Source: MAPFRE Economics (with data from SUSEP)

Chart 2.6-b
Brazil: structural breakdown of traditional business investment portfolio by asset type, 2023
(%)



Source: MAPFRE Economics (with data from SUSEP)

Table 2.6
Brazil: structure of traditional business investment portfolio broken down by asset type, 2013–2023
(%)

Asset type	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Fixed income	8.8%	9.9%	9.3%	8.0%	8.0%	7.8%	8.5%	9.2%	9.3%	9.3%	8.9%
Equities	6.5%	5.3%	3.9%	3.5%	3.4%	2.9%	2.7%	2.2%	3.7%	3.6%	3.7%
Cash and deposits	0.6%	0.4%	0.3%	0.2%	0.2%	0.2%	0.3%	0.3%	0.3%	0.3%	0.2%
Real estate	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Mutual funds	83.3%	83.7%	85.9%	87.8%	88.3%	89.1%	88.4%	88.1%	86.7%	86.7%	87.0%
Other investments	0.8%	0.7%	0.7%	0.4%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%

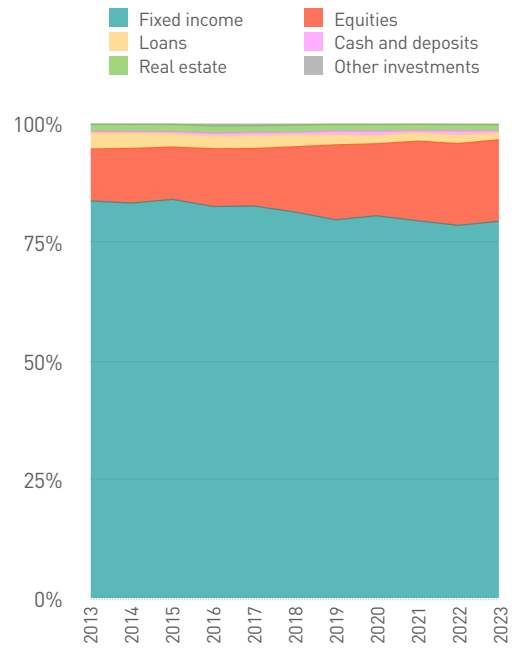
Source: MAPFRE Economics (with data from SUSEP)

dated breakdown of the different categories of assets managed through mutual funds. The latest breakdown in this sense, provided by the Superintendency of Private Insurance (SUSEP), corresponds to 2020 (with a long series since 2010). This information confirmed that the majority of assets invested through mutual funds involved fixed income securities.[8] Based on data from 2023, investments in mutual funds in the Brazilian insurance market accounted for 87.0% of the total investment portfolio, while pure equities accounted for 3.7%, as shown in Chart 2.6-b.

2.7 Mexico

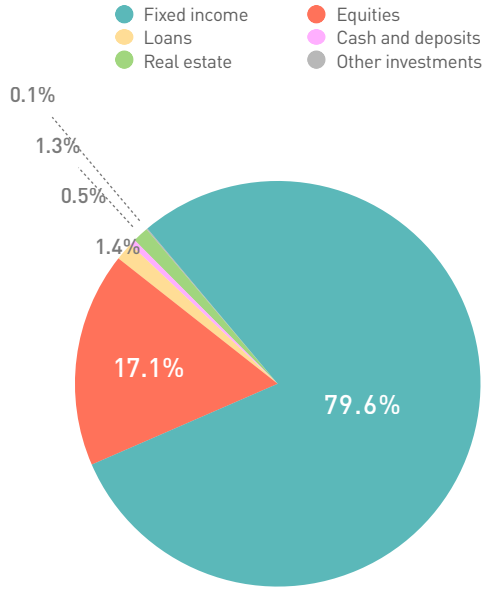
In the case of the Mexican insurance market, the strength of fixed income investments can also be seen in the aggregate investment portfolio throughout the 2013–2023 period, as

Chart 2.7-a
Mexico: structure of traditional business investment portfolio broken down by asset type, 2013–2023
(%)



Source: MAPFRE Economics (with data from CNSF)

Chart 2.7-b
Mexico: structural breakdown of traditional business investment portfolio by asset type, 2023
(%)



Source: MAPFRE Economics (with data from CNSF)

Table 2.7
Mexico: structure of traditional business investment portfolio broken down by asset type, 2013–2023
(%)

Asset type	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Fixed income	83.9%	83.4%	84.2%	82.7%	82.8%	81.5%	79.9%	80.8%	79.7%	78.7%	79.6%
Equities	10.9%	11.5%	11.0%	12.1%	12.1%	13.7%	15.7%	15.1%	16.7%	17.2%	17.1%
Loans	3.3%	3.2%	2.8%	2.7%	2.7%	2.5%	2.1%	1.8%	1.7%	1.8%	1.4%
Cash and deposits	0.4%	0.4%	0.4%	0.6%	0.7%	0.5%	0.8%	0.9%	0.5%	0.9%	0.5%
Real estate	1.5%	1.5%	1.5%	1.5%	1.4%	1.5%	1.4%	1.4%	1.3%	1.3%	1.3%
Other investments	0.0%	0.0%	0.0%	0.4%	0.3%	0.2%	0.1%	0.1%	0.0%	0.1%	0.1%

Source: MAPFRE Economics (with data from CNSF)

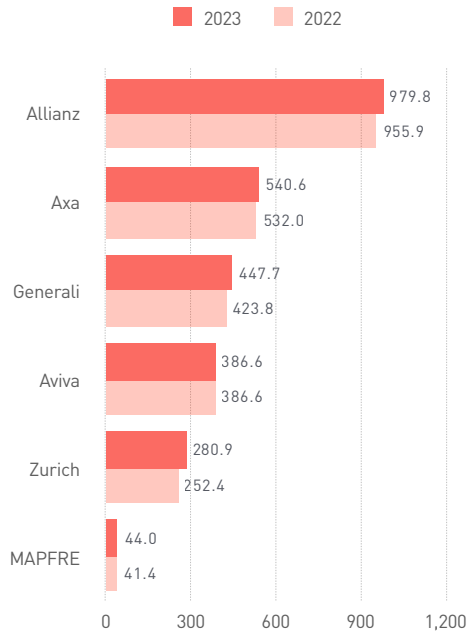
confirmed by the information displayed in Table 2.7 and in Charts 2.7-a and 2.7-b. In this period, however, it is worth noting that the share of investments in fixed income dropped from 83.9% to 79.6% (-4.3 pp), with the share of investments in equities increasing by 6.2 pp, from 10.9% in 2013 to 17.1% in 2023. The remaining asset categories do not feature any relevant changes, with the exception of investments in loans, dropping by 1.9 pp from 3.3% in 2013 to 1.4% in 2023.

3. Investment portfolio structure of insurance groups

In order to round off the analysis of the distribution of insurance company investments, an analysis of the investment portfolios of European insurance groups (defined as their parent company being located in this territory) which can be considered global groups is shown below. These are internationally active groups with a high volume of cross-border business. The groups selected had sufficiently homogeneous information available to make a comparison of their investment portfolios, including the ordinary portfolio, loans granted, cash and the investments allocated to unit-linked products.

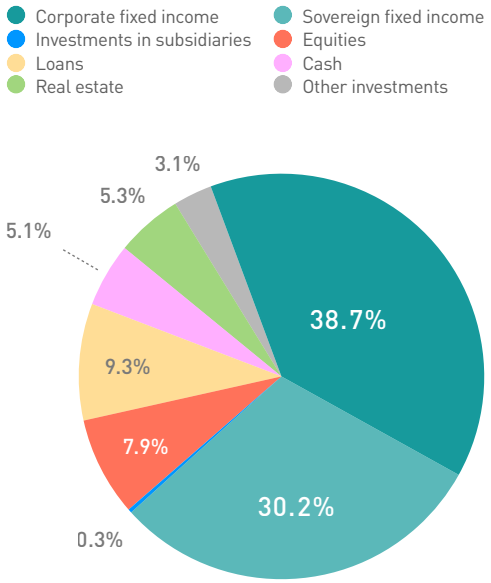
Based on the foregoing, the information shown in Chart 3-a shows that the three largest European groups in terms of these analysis criteria are Allianz, Axa, and Generali. The aggregate analysis of the traditional business investment portfolios of these groups (excluding unit-linked business) highlights the predominance of corporate fixed income, which represents 38.7% of investments (see Chart 3-b), although in 2023, it experienced a slight reduction of 0.4 percentage points (pp) compared to the previous year (see Chart 3-c). Sovereign fixed income, in turn, accounted for 30.2% of the portfolio at the end of 2023, with its weight increasing by 0.1 pp compared to the end of the previous year.

Chart 3-a
Selected insurance groups: aggregate investment portfolio, 2022–2023
(billions of euros)



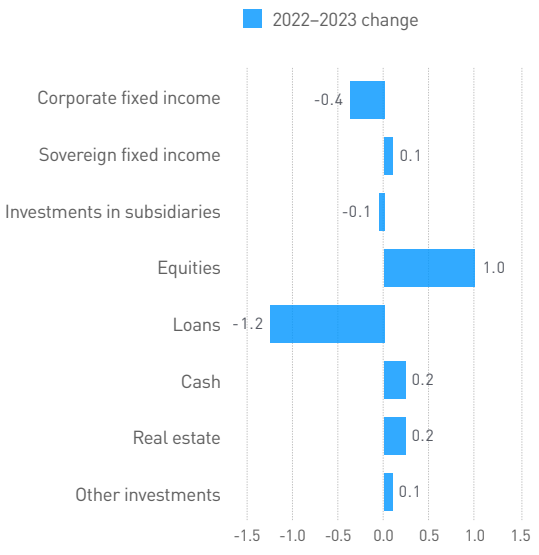
Source: MAPFRE Economics (with data from the consolidated financial statements of the aforementioned insurance groups)

Chart 3-b
Selected insurance groups: distribution by aggregate investment portfolio asset type, 2023
(%)



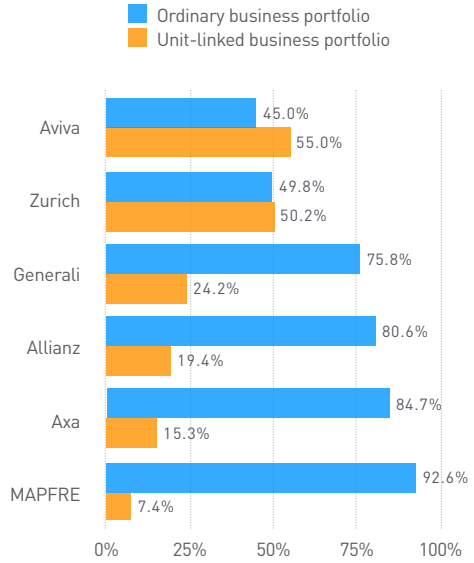
Source: MAPFRE Economics (with data from the consolidated financial statements of the aforementioned insurance groups)

Chart 3-c
Selected insurance groups: variation by aggregate investment portfolio asset type, 2022–2023
(percentage points)



Source: MAPFRE Economics (with data from the consolidated financial statements of the aforementioned insurance groups)

Chart 3-d
Selected insurance groups: distribution by investment portfolio asset type, 2023
(%)



Source: MAPFRE Economics (with data from the consolidated financial statements of the aforementioned insurance groups)

Table 3-a
Selected insurance groups: weight of investments by type of business, 2022–2023
(%)

Type of business	Allianz		Axa		Generali		Aviva		Zurich		MAPFRE	
	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022
Traditional business portfolio	80.6%	85.2%	84.7%	85.6%	75.8%	76.9%	45.0%	48.6%	49.8%	54.9%	92.6%	92.7%
Unit-linked business portfolio	19.4%	14.8%	15.3%	14.4%	24.2%	23.1%	55.0%	51.4%	50.2%	45.1%	7.4%	7.3%

Source: MAPFRE Economics (with data from the consolidated financial statements of the aforementioned insurance groups)

Table 3-b
Selected insurance groups: distribution by investment portfolio asset type, 2022–2023
(%)

Asset type	Allianz		Axa		Generali		Aviva		Zurich		MAPFRE	
	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022
Corporate fixed income	44.7%	46.8%	32.2%	30.3%	40.8%	40.0%	30.1%	28.5%	34.1%	37.2%	20.1%	19.3%
Sovereign fixed income	22.7%	22.5%	34.5%	34.8%	41.4%	43.9%	21.7%	19.8%	35.7%	32.8%	55.6%	51.6%
Equities	12.4%	9.9%	6.4%	6.7%	0.8%	0.7%	6.7%	7.4%	9.6%	8.9%	7.0%	6.5%
Loans	13.5%	15.5%	4.3%	4.8%	3.2%	4.8%	21.2%	21.0%	5.7%	6.0%	0.0%	0.0%
Cash	3.5%	2.8%	5.5%	5.7%	5.1%	3.4%	12.8%	16.3%	5.2%	5.1%	5.1%	6.7%
Real estate	2.9%	2.2%	8.4%	8.9%	7.0%	6.4%	1.5%	1.5%	9.8%	10.0%	4.5%	5.4%
Other investments	0.3%	0.4%	8.7%	8.8%	1.6%	0.7%	6.1%	5.5%	0.0%	0.1%	7.7%	10.5%

Source: MAPFRE Economics (with data from the consolidated financial statements of the aforementioned insurance groups)

Table 3-c
Selected insurance groups: investment portfolio credit profile, 2023
(%)

Credit rating	Allianz		Axa	Generali		Aviva		Zurich	MAPFRE
	Sovereign	Corporate	Total	Sovereign	Corporate	Sovereign	Corporate	Total	Total
Grade 0 (AAA or equivalent)	16.1%	15.8%	20.0%	6.4%	5.6%	12.8%	12.5%	22.0%	5.6%
Grade 1 (AA or equivalent)	41.8%	14.2%	31.0%	28.5%	9.4%	68.5%	19.2%	28.1%	13.1%
Grade 2 (A or equivalent)	16.8%	30.4%	26.0%	23.4%	28.9%	9.5%	39.7%	18.4%	39.9%
Grade 3 (BBB or equivalent)	20.0%	32.6%	18.0%	36.9%	47.5%	5.5%	20.4%	26.2%	23.9%
Grade < 3	5.0%	4.3%	4.0%	1.4%	5.9%	3.1%	6.0%	5.3%	15.4%
No credit rating (non-rated)	0.2%	2.7%	1.0%	3.4%	2.7%	0.5%	2.3%	0.0%	2.1%

Source: MAPFRE Economics (with data from the consolidated financial statements of the aforementioned insurance groups)

In addition, Table 3-a and Chart 3-d show the distribution of the investment portfolios between traditional business and business in which the policyholder assumes the investment risk (i.e. unit-linked and similar). To this end, the case of Aviva is worth mention: here, the unit-linked and similar business portfolio accounts for the majority. In the case of Zurich, both businesses (traditional and unit-linked) are equal. In the case of the other insurance groups, portfolios linked to traditional business prevail. Table 3-b, in turn, shows the relative weight at the close of 2023 of the different asset categories for each of the insurance groups analyzed, and their comparison with the previous year.

Table 3-d
Selected insurance groups: changes in investment portfolio credit profile, 2022–2023
(percentage points)

Credit rating	Allianz		Axa	Generali		Aviva		Zurich	MAPFRE
	Sovereign	Corporate	Total	Sovereign	Corporate	Sovereign	Corporate	Total	Total
Grade 0 (AAA or equivalent)	-5.1	-0.2	1.0	0.6	-0.9	-13.4	0.5	1.0	-10.7
Grade 1 (AA or equivalent)	3.8	2.0	-2.0	-0.6	0.5	12.3	-4.9	0.9	-0.1
Grade 2 (A or equivalent)	1.3	4.0	1.0	2.5	1.9	1.7	7.5	-2.4	-1.2
Grade 3 (BBB or equivalent)	0.6	-0.8	-2.0	-4.1	-1.2	1.6	0.8	-6.2	2.2
Grade < 3	-0.2	-1.9	2.0	0.4	-1.3	0.5	1.2	0.7	10.9
No credit rating (non-rated)	-0.4	-3.2	0.0	1.2	1.1	-2.7	-5.1	6.0	-1.1

Source: MAPFRE Economics (with data from the consolidated financial statements of the aforementioned insurance groups)

Finally, Table 3-c summarizes the credit profiles of the investment portfolios broken down into the highest level of detail shown in the consolidated financial statements of the insurance groups analyzed, while Table 3-d presents the changes in the credit profile of the portfolios' investments. In general terms, more than 50% of the investments are within the first three credit rating levels, in the range between 0 and 2, i.e. between AAA and A or equivalent.

4. Capital risk weights for investments applicable in the European Union

This section, as a general reference for analysis, contains a comparison of the different gross regulatory capital risk weights. These are applicable to the most representative categories within the insurance companies' investment portfolios that apply the Solvency II standard formula, which have some influence on the composition of insurance group investment portfolios in this region of the world.

4.1 Investment in fixed-income bonds

Investments in fixed income bonds have specific capital risk weights arising from differential risk (spread) and concentration risk. Weights for spread and concentration risks depend on: (i) type of asset; (ii) their credit risk rating; (iii) the residual maturity of the bond weighted by the amount of future flows (modified duration); and (iv) concentration with the same counterpart. Furthermore, additional capital risk weights may be decided in the event of defective management of the risk of unbundling of cash flows and/or currency provisions between assets and liabilities.

Capital risk weights by spread risk

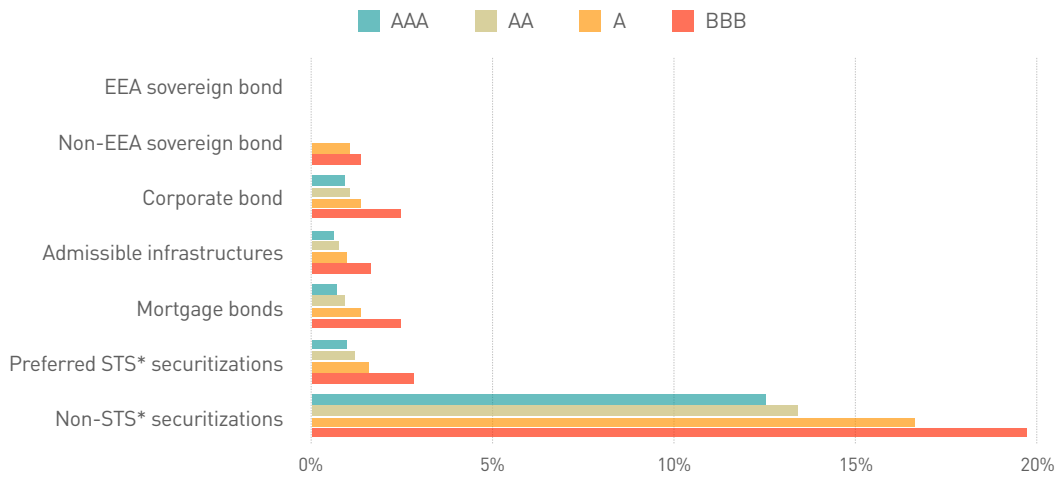
Table 4 shows a comparative study of the gross capital risk weights applicable to different bond types per year of duration. To calculate the total gross risk weight for a specific bond, its modified duration (weighted by the amount of flows) must be multiplied by the percentages appearing in said table. For durations higher than five years, the percentages applicable to the excess duration are somewhat lower, with the objective of not penalizing long-term investment excessively.[9]

Table 4
Gross capital risk weights applicable to bonds per year of duration
(%)

Credit rating**	EEA sovereign bond*	Non-EEA sovereign bond	Corporate bond	Admissible infrastructures	Mortgage bonds	Preferred STS securitizations	Non-STS securitizations
Grade 0 (AAA or equivalent)	0.0%	0.0%	0.9%	0.6%	0.7%	1.0%	12.5%
Grade 1 (AA or equivalent)	0.0%	0.0%	1.1%	0.8%	0.9%	1.2%	13.4%
Grade 2 (A or equivalent)	0.0%	1.1%	1.4%	1.0%	1.4%	1.6%	16.6%
Grade 3 (BBB or equivalent)	0.0%	1.4%	2.5%	1.7%	2.5%	2.8%	19.7%
Grade 4 (BB or equivalent)	0.0%	2.5%	4.5%	4.5%	4.5%	5.6%	82.0%
Grade 5 (B or equivalent)	0.0%	4.5%	7.5%	7.5%	7.5%	9.4%	100.0%
Grade 6 (less than B or equivalent)	0.0%	4.5%	7.5%	7.5%	7.5%	9.4%	100.0%

Source: MAPFRE Economic Research (based on Delegated Regulation (EU) 2015/35)
*European Economic Area (EEA)
**See link to EIOPA's table of credit rating equivalences (see reference 4 of this report)

Chart 4
Capital risk weights per year of duration: investment-grade bonds
(%)



Source: MAPFRE Economics (with data from EIOPA)

*Simple, transparent and standardized (STS) securitizations

In turn, Chart 4 illustrates the behavior of capital risk weights, comparing the gross risk weights per year of duration for bonds situated in the investment grade range. It can be seen that investments in sovereign bonds from countries in the European Economic Area (EEA) do not have capital risk weights for spread risk, provided that they are denominated and financed in their own currency. Nevertheless, if currencies and durations are not correctly managed, this could give rise to a capital risk weight as a result of fluctuations in risk-free interest rates and/or exchange rates, in the event of the unbundling of cash flows and/or currency provisions between assets and liabilities. In addition, an increase in market spreads would affect eligible own funds to cover capital requirements, in the event of a fall in the market value of the sovereign bonds concerned. If sovereign debt investments from countries other than EU Member States with a credit rating of AAA or AA (or equivalent[10]) are involved, they do not have capital risk weights for spread risk either. For lower credit ratings, the capital risk weight will depend on the rating and the modified duration of the bond concerned.

As an example, a sovereign debt bond from countries other than EU Member States with a credit rating of A and a duration of five years would have a gross capital risk weight of 5.5%. If its duration is ten years, the risk weight would be 8.4%. If the bond had a rating of BBB, the risk weights would be 7.0% and 10.5%, respectively. Bonds with no rating have specific capital risk weights that fluctuate in a range somewhere between the risk weights applicable to BBB and BB ordinary corporate bonds. It is important to point out that these percentages are applied both to direct investments and to investments implemented through mutual funds, to which the so-called "look-through" approach is applied.

Capital risk weights by concentration risk

If there is concentrated risk with a specific counterparty over and above a specific threshold, an additional capital risk weight is applied. In general, insurance companies do not usually exceed such thresholds, which are normally above those specified in their risk management policies and within limit control parameters. Nevertheless, the capital risk weights arising from non-compliance

strongly penalize concentration risk. As an example of the above, an investment in an AA bond belonging to a counterparty whose exposure exceeds 3% of the company's total assets would have an additional risk weight of 12% above the excess exposure. If a BBB bond is involved, the capital surcharge would be 27% above excess exposure greater than 1.5% above the company's total assets. However, it is worth noting that investments in sovereign bonds from countries in the EEA do not have capital risk weights for concentration risk, provided that they are denominated and financed in their own currency.

4.2 Investment in shares

The gross capital risk weight applicable to investments in shares listed on regulated markets within Organization for Economic Cooperation and Development (OECD) countries is 39% of the value of the shares concerned. This risk weight must in its turn be adjusted by the "symmetrical adjustment," which has countercyclical effects within limits of between -10% and +10%. For variable income instruments for investment in infrastructures which comply with the admissibility requirements for receiving preferential treatment, the gross capital risk weight is 30%, plus 77% of the symmetrical adjustment established for investment in shares. For non-listed shares, the capital risk weight is 49% plus the symmetrical adjustment. There are also special cases in which capital risk weights can end up being lower, as in the case of strategic holdings.

4.3 Capital risk weights for real estate investments

The gross capital weight for market risk for real estate investments is 25% of the value of the property. As in the case of other assets, this percentage is applied both to direct investments and to investments made through mutual funds, to which the so-called "look-through" approach is applied. There is an additional capital risk weight in the event of excess exposure in a single property. The excess threshold is 10% of the value of all the assets of the insurance company, excluding from this calculation certain assets such as those corresponding to Life insurance contracts in which the policyholder fully assumes the investment risk (unit-linked). The additional capital risk weight would be 12% on the excess. Properties located in the same building are considered to be a single property.

4.4 Benefits of diversification and loss-absorbing capacity

Finally, it is important to point out that exposed capital risk weights are gross weights. The benefits of diversification, the loss-absorbing capacity of deferred taxes, and the fact that investments may be assigned to portfolios of products with participation in discretionary profits mean that capital risk weight in terms of shareholders' equity requirements may be lower, depending on the risk profile of the insurance company. The loss-absorbing capacity of deferred taxes may reduce the capital risk weight to a percentage equivalent to the corporate tax rate. Likewise, the loss-absorbing capacity of technical provisions will depend on the products that the company has in its portfolio with participation in discretionary profits.

4.5 Solvency II Reform

During 2023 and by the reporting date, significant progress has been made to reform the Solvency II regulatory framework, culminating in the agreement reached by the European co-legislators for the modification of the Directive, with the definitive transactional document being published on January 24, 2024,[11] although its publication in the form of a Directive in the Official Journal of the European Union (EU) is pending.

The most relevant measure that will affect the gross capital charges described above, once the reform comes into force, is the measure related to how long-term shares are handled, which may benefit from a reduced shock of 22%, provided that they meet a series of requirements to be considered as such. This more favorable treatment will be

applicable as long as insurers and reinsurers meet the criteria set out in the new regulations, such as the administration's commitment to maintaining investments for a minimum period through their written policies and criteria designed to avoid the forced sell-off of shares during periods of market stress.

Elsewhere, the main developments included in the final text of the Directive, which, once it comes into force, will have a significant quantitative impact, are more related to the calculation of admissible own funds when determining the solvency ratio and are as follows:

Risk margin

The capital cost rate for the valuation of technical provisions drops from 6% to 4.75%. This parameter is particularly important given the high sensitivity of the valuation of obligations of insurance companies to changes in it and will entail, when the reform comes into force, a significant reduction in technical provisions, freeing up resources that will enhance the role of the EU insurance industry as institutional investors in the medium and long term.

Extrapolation of the discount curve

The method of extrapolating risk-free interest rates for the valuation of obligations assumed in insurance contracts is different. This is with a view to better reflecting the interest rates observed in the market in the longest sections of the curve.

Volatility adjustment

The percentage of the volatility adjustment has been increased, increasing the ratio of its application from 65% to 85% and strengthening the national component of the adjustment.

Matching adjustment

Restrictions on diversification benefits established for insurance companies that applied the adjustment for matching assets and liabilities have been eliminated.

Long-term portfolio shares

Provisions relating to long-term portfolio shares have been made more flexible, with a view to benefiting from a reduced shock of 22% (compared to 49%, the potential figure in other cases).

The reform will come into force 24 months after the publication of the review of the Directive in the Official Journal of the EU. Within this period, Member States must transpose this Directive into their domestic legal system, adopting and publishing the laws, regulations, and administrative provisions required to comply with it during that period.[12] One relevant aspect of the reform of the Solvency II Directive is that it introduces the category of "small and non-complex" undertakings to effectively apply the so-called "principle of proportionality." The modification of the Solvency II Delegated Regulation remains pending, however, to finish outlining the universe of insurance undertakings that will benefit from this simplified framework.

Meanwhile, insurers and reinsurers should develop climate change scenarios in their own risk and solvency assessments (ORSA) and prepare transition plans to monitor sustainability risks, in addition to other factors. It is worth noting that several elements of the reform of the Directive require subsequent regulatory development, both by the European Commission and by the European Insurance and Pensions Authority (EIOPA), through the corresponding Regulatory Technical Standards (RTS) and Implementation Technical Standards (ITS). These elements are critical for the effective and detailed implementation of the new regulations in Member States, ensuring a consistent and harmonized implementation throughout the EU.

To this end, EIOPA must provide the technical advice required and develop technical standards that specify, among other aspects, the criteria to be considered by the supervisory

authorities when identifying the companies to which macroprudential measures will be applied in systemic risk management. It must also define the specific requirements for the analysis of climate scenarios in the own risk and solvency assessments (ORSA) of insurance undertakings, especially in relation to exposure to climate risks. In turn, the European Commission must adopt delegated acts that specify the method for the extrapolation of the term structure of risk-free interest rates, as well as propose additional delegated acts that regulate the application of proportionality measures, especially regarding reporting and governance requirements for "small and non-complex" undertakings.

References

1/ See: MAPFRE Economics (2023), *Global Savings and Insurance Industry Investments*, Madrid, Fundación MAPFRE.

2/ See: MAPFRE Economics (2020), *Elements for the Development of Life Insurance*, Madrid, Fundación MAPFRE.

3/ Information obtained from the financial stability reports published by the European Insurance and Pensions Authority (EIOPA) since 2017.

4/ See: https://www.fitchratings.com/research/sovereigns/fitch-downgrades-united-states-long-term-ratings-to-aa-from-aaa-outlook-stable-01-08-2023

5/ See: https://ratings.moodys.com/ratings-news/411110

6/ See: https://www.bnnbloomberg.ca/investing/2024/09/24/us-debt-dynamics-inconsistent-with-a-aaa-rating-moodys-says/

7/ See: https://www.mof.go.jp/english/policy/jgbs/publication/debt_management_report/2021/index.html y https://www.moodys.com/research/Moodys-Japanese-life-insurers-post-profits-for-more-than-20--PR_385153

8/ See: MAPFRE Economics (2024), *The Latin American Insurance Market in 2023*, Madrid, Fundación MAPFRE. (Table 3.2.3-c, p. 214).

9/ These reduced percentages can be found in Article 176 of Delegated Regulation (EU) 2015/35 (Solvency II).

10/ See the table of credit rating equivalences from EIOPA, at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02016R1800-20180515

11/ See the final transactional text of Solvency II at: https://data.consilium.europa.eu/doc/document/ST-5481-2024-INIT/en/pdf

12/ In the case of Spain, the changes must be transposed into the Spanish legal system through the Law on the Regulation, Supervision, and Solvency of Insurance and Reinsurance Undertakings (LOSSEAR) and the Royal Decree on the Regulation, Supervision, and Solvency of Insurance and Reinsurance Undertakings (RDOSSEAR).

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MAPFRE Economics (2024), *2024 Economic and Industry Outlook: Fourth-Quarter Forecast Update*, Madrid, Fundación MAPFRE.

MAPFRE Economics (2024), *The Spanish Insurance Market in 2023*, Madrid, Fundación MAPFRE.

MAPFRE Economics (2024), *2023 Ranking of Insurance Groups in Latin America*, Madrid, Fundación MAPFRE.

MAPFRE Economics (2024), *Demographics: An Analysis of Their Impact on Insurance Activity*, Madrid, Fundación MAPFRE.

MAPFRE Economics (2024), *2023 Ranking of the Largest European Insurance Groups by Revenue*, Madrid, Fundación MAPFRE.

MAPFRE Economics (2024), *Risk Environment 2024–2026: Classification and Analysis*, Madrid, Fundación MAPFRE.

MAPFRE Economics (2024), *Insurance Solvency Regulation Systems Outlook*, Madrid, Fundación MAPFRE.

MAPFRE Economics (2023), *MAPFRE GIP 2023*, Madrid, Fundación MAPFRE.

MAPFRE Economics (2023), *Real Estate Markets and the Insurance Sector*, Madrid, Fundación MAPFRE.

MAPFRE Economics (2022), *COVID-19: A Preliminary Analysis of Demographic and Insurance Industry Impacts*, Madrid, Fundación MAPFRE.

MAPFRE Economics (2021), *A Global Perspective on Pension Systems*, Madrid, Fundación MAPFRE.

MAPFRE Economics (2020), *Elements for the Development of Life Insurance*, Madrid, Fundación MAPFRE.

MAPFRE Economic Research (2019), *Population Aging*, Madrid, Fundación MAPFRE.

MAPFRE Economic Research (2018), *Global Insurance Potential Index*, Madrid, Fundación MAPFRE.

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