

4. INSURANCE COMPANIES AND INVESTMENT FUNDS

4.1 Domestic insurance companies

In the first half of 2025, a new insurance undertaking was licensed, bringing the total to 69. The number of domestically-relevant insurers remained unchanged at ten, with assets growing by 1.4% to €3.9 billion, equivalent to 16.5% of GDP.¹

4.1.1 Domestically-relevant life insurance companies

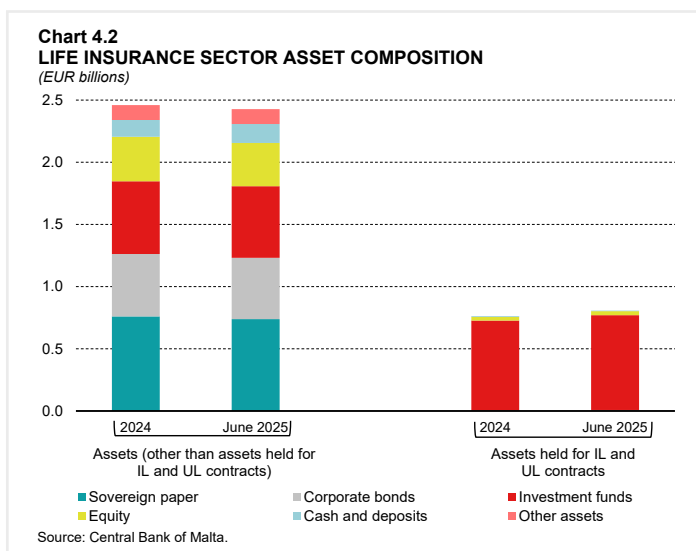
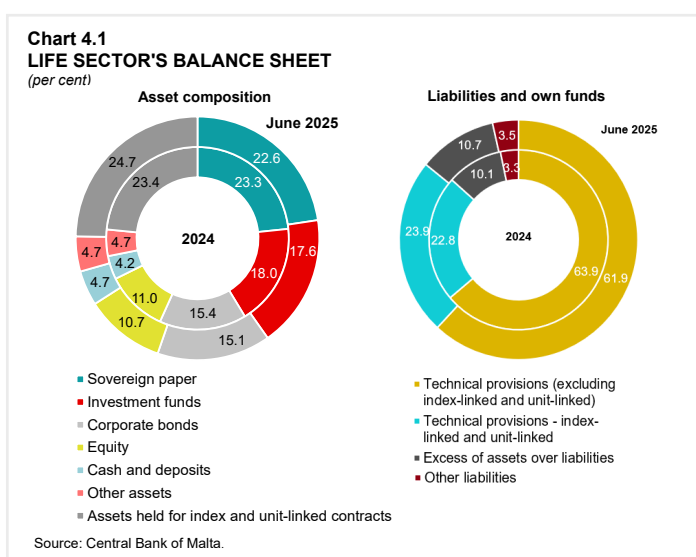
The life insurance sector's balance sheet expanded marginally by 0.4% to €3.2 billion, with the share of their assets to GDP contracting as a result to 13.7%. Growth was driven by index-linked (IL) and unit-linked (UL) contracts, with related assets rising by 6.0% to €808.5 million.² In contrast, assets excluding IL and UL holdings declined by 1.3% to €2.5 billion (see Chart 4.1).

Asset composition – IL and UL policies

For IL and UL contracts, assets remained largely concentrated in investment funds, which accounted for around 95% of the total. While spanning across various investment strategies, these contracts are mainly allocated towards equity, debt, and asset allocation strategies. Investments in funds increased by 5.5%, driven by higher allocations to alternative and debt funds within the euro area, while participations in equity and money market funds declined. The remaining assets are held mostly in equities, with a much smaller share in bonds (see Chart 4.2).

Asset composition – excluding IL and UL policies

Assets excluding IL and UL contracts comprised of holdings backing other life insurance products, together with assets held on the insurers' own account. Over half of these assets are invested in fixed-income securities, with a continued preference for sovereign paper (see Chart 4.2). However, in the first half of 2025, sovereign holdings fell by 2.8%, mainly due to reductions in holdings of



¹ Of these, four specialise in life insurance, four in non-life, and two are composite insurers offering both. For the composites, however, life operations represented less than 4% of total gross written premia. For one non-life insurance company, the latest available data by cut-off date is December 2024 data and was used as a proxy for June 2025.

² The performance of these contracts depends entirely on underlying investments, transferring the investment risk to policyholders. In contrast, traditional life insurance products provide guarantees, with insurers retaining part of the market and balance sheet risk. Consequently, IL and UL contracts are assessed separately to reflect their distinct impact on the sector's financial position and stability.

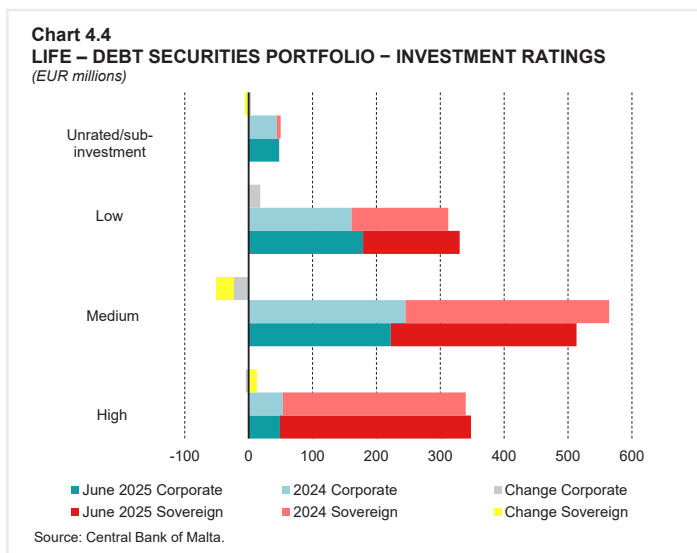
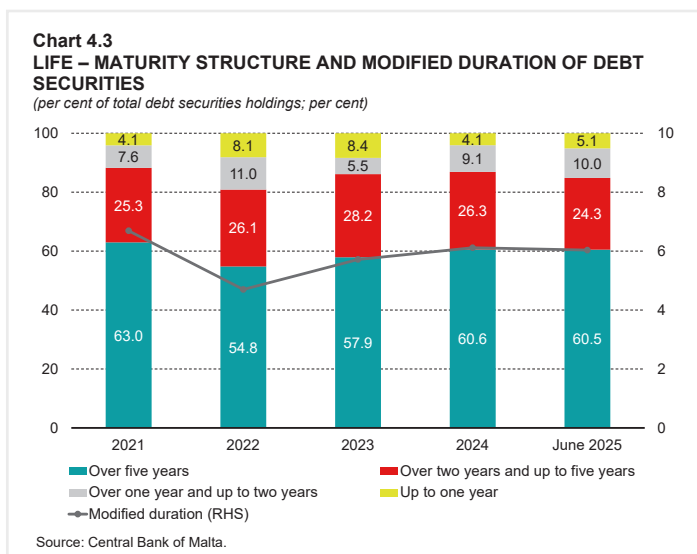
Malta Government Stocks (MGS) and lower exposures to the RoW. Similarly, corporate bond holdings declined by 1.9%, reflecting reductions across all markets.

The maturity profile of life insurers' bond portfolio experienced a modest shift, reflecting both new purchases and the maturing of existing holdings. Debt securities with outstanding maturities exceeding five years declined by 2%, although they continued to account for 60.5% of the portfolio (see Chart 4.3). Bonds maturing within two to five years fell more sharply, down by 10% to 24.3%. By contrast, shorter-dated holdings rose significantly by 13.1%, reaching 15.1% of the portfolio. Despite these shifts, the modified duration remained stable at 6%, indicating that the average sensitivity to interest rate changes remained broadly unchanged.

Life insurers' debt portfolios remained largely concentrated in medium and high-rated securities, which, despite a 4.7% decline, still represented about 70% of total holdings (see Chart 4.4). Low-rated debt increased, with only minor reductions in sub-investment grade and unrated positions. Sovereign exposures continued to be concentrated in higher-quality securities, with over three-quarters rated medium or high. The corporate bond portfolio was more balanced, with just under 55% invested in medium and high-rated securities and the remainder in low-rated or unrated/sub-investment grade debt.

Holdings in investment funds, excluding IL and UL contracts, declined by 1.6% in the first half of the year, mainly reflecting lower allocations to euro area money market funds. Euro area debt and money market funds remained the dominant investment categories. Meanwhile, direct equity holdings fell by a faster rate of 2.5%, largely reflecting lower positions in US NFCs, which, along with euro area equities, continued to represent key components of the portfolio.

During the first half of 2025, life insurers' cash holdings rose by 12.2%, reaching 6.3% of total assets, excluding IL and UL contracts. This increase enhances flexibility to respond to market opportunities, but it may also reflect a temporary allocation pending reinvestment. At the same time, exposure to alternative assets such as collateralised securities, real estate, mortgages, and loans remained modest, at just under 5% of the overall portfolio.



Liabilities and own funds

By June 2025, technical provisions for IL and UL contracts increased by 5.5%, accounting for just over one-fifth of total liabilities (see Chart 4.1). In contrast, provisions allocated to other life insurance activities declined by 2.6%. Still, these remained the main liability component at nearly 62%. The excess of assets over liabilities rose by 5.7% to approximately one-tenth of total liabilities, corresponding to eligible own funds under the Solvency II Directive.³ This financial buffer provides life insurers with a safeguard against unexpected losses and ensures sufficient resources to meet future claims beyond the reserves already set aside.

Gross written premium and claims

Gross written premia (GWP) continued to recover in the first half of the year, rising by 3.5% (see Chart 4.5).⁴ This was mainly driven by a 6.6% increase in ‘insurance with profit participation’ products, which accounted for 50.7% of total premia. While the latter rebounded, growth remained well below historical averages. ‘Other life insurance’ products also grew, up by 3.2%, supported by a resilient mortgage market, as new mortgage loans typically require life protection policies. In contrast, demand for IL and UL contracts fell slightly by 0.3%, representing approximately 36% of premia, indicating a slow-down after years of growth.

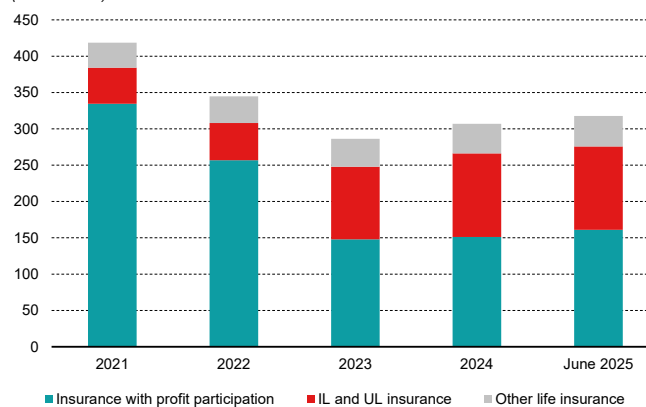
During the same period, gross claims incurred declined by 5.8% primarily driven by lower claims related to ‘insurance with profit participation’ products. Despite the decline, claims related to ‘insurance with profit participation’ continued to represent the bulk of claims. A similar trend was observed in ‘other life insurance’ products. In contrast, claims associated with IL and UL products experienced a slight increase during the period under review.⁵

Liquidity and capital

The liquid assets ratio of the life insurance sector fell by a marginal 0.2 percentage points to 59.6%, as declines across most asset classes were largely offset by higher cash holdings (see Chart 4.6). Nevertheless, the ratio continued to exhibit notable variability across individual companies, underscoring the sector’s inherent heterogeneity.

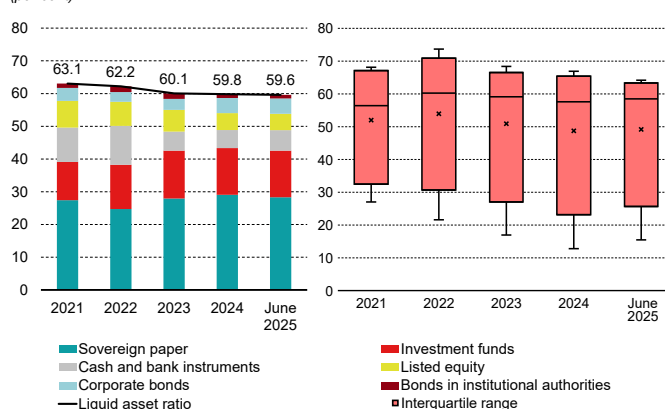
Life insurers maintained strong capital buffers, with an overall Solvency

Chart 4.5
GWP OF THE DOMESTIC LIFE INSURANCE SECTOR BY LINE OF BUSINESS
(EUR millions)



Source: Central Bank of Malta.

Chart 4.6
LIQUID ASSETS RATIO OF THE LIFE INSURANCE SECTOR
(per cent)



Source: Central Bank of Malta.

Note: The left panel shows the composition of liquid assets in the life insurance sector, while the right panel presents the distribution of the indicator (median and interquartile range).

³ Total eligible own funds under the Solvency II Directive include the excess of assets over liabilities, adjusted according to regulatory rules, which generally correspond to Tier 1 capital, along with other items eligible as Tier 2 and Tier 3 capital.

⁴ Approximately 0.3% of premia are underwritten outside the domestic market, primarily within the euro area, in IL and UL contracts as well as ‘other life insurance’ business.

⁵ GWP and gross claims incurred are calculated as a four-quarter moving sum as of June 2025.

Capital Requirement (SCR) coverage ratio of 268.3%, representing an increase of nearly 19 percentage points since December 2024. The quality of own funds remained robust, with the majority comprising of Tier 1 capital, the highest-quality component.

Profitability

The life insurance sector's profitability improved, with pre-tax profits rising by 14%, resulting in a pre-tax ROA of 1%. While performance varied across companies, all life insurers reported a positive ROA. From an underwriting perspective, the higher insurance revenue was mitigated by increased expenses related to contract servicing and reinsurance, thus limiting the net contribution from core insurance operations. In contrast, the investment component strengthened significantly, supported by lower financing expenses.

The expense ratio, which measures an insurer's operational efficiency by comparing total operating costs, excluding claims, to net premia earned, remained stable at 15.7% in June 2025.

4.1.2 Domestically-relevant non-life insurance companies⁶

By June 2025, the total balance sheet of domestically-relevant non-life insurance companies grew by 6.5%, reaching €668 million and representing about 2.8% of GDP.

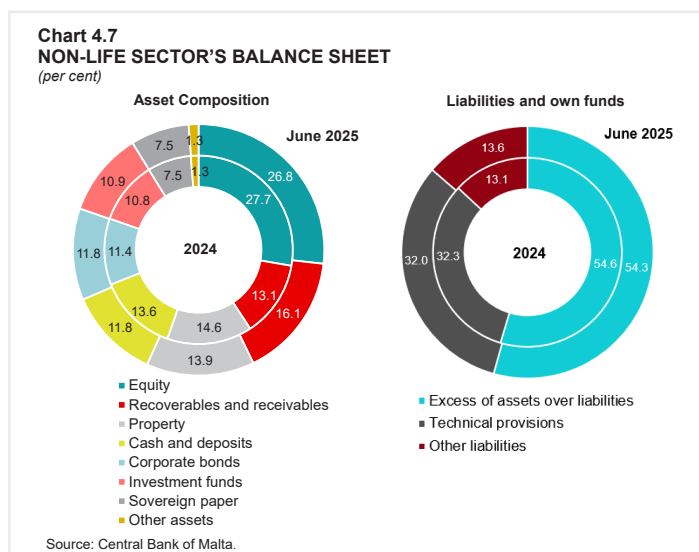
Asset composition

During the first half of 2025, nearly all asset classes grew, except for cash holdings, which declined by 7.6%. Recoverables and receivables increased sharply by 31.1%, driving the growth in the balance sheet, mainly reflecting outstanding premia and intermediary commissions.

Equity holdings remained the largest asset class, up by 2.9% to account for 26.8% of total assets (see Chart 4.7). A substantial share of these equities were holdings in related insurance companies, reflecting a high degree of interconnectedness through cross-ownership. Participations in investment funds also rose by 7.4%, bringing their share to 10.9% of assets, with the majority invested in debt and equity funds, both domestic and in other euro area countries.

Holdings of fixed-income securities increased by 9.0%, accounting for 19.3% of total assets. Within this category, sovereign paper rose by 7.0%, largely concentrated in the euro area, while exposure to domestic sovereign paper declined. Corporate bond holdings expanded by 10.4%, mainly driven by debt securities issued by financial entities in the United States and the euro area.

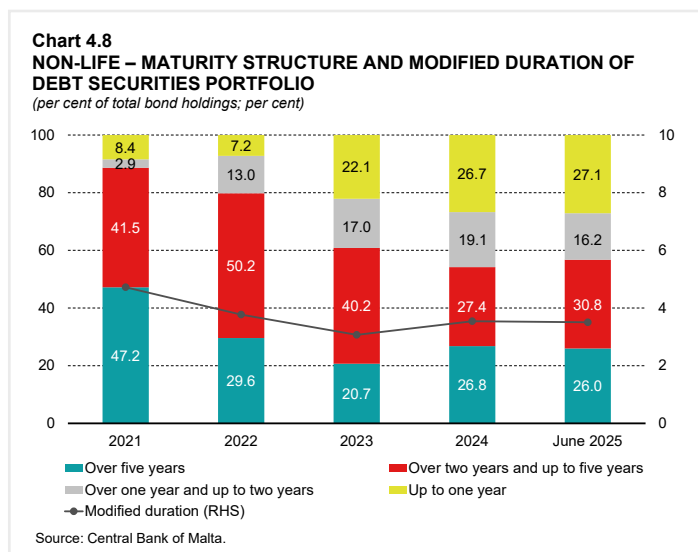
In the first half of 2025, non-life insurers' debt securities portfolios underwent some adjustment, reflecting both active purchases and the shortening maturity profile of existing holdings. Short-dated securities of up to one year grew by 3.8%, reaching 27.1% of the total, at the expense of holdings maturing between one and two years which fell to 16.2% (see Chart 4.8). Securities with maturities of two to five years increased by 15.1%, raising their share to 30.8% of the total, while longer-dated securities of over five years edged down slightly to 26.0%. This composition reflects a



⁶ For one non-life insurance company, December 2024 data, the latest available, was used as a proxy for June 2025, as mid-year figures were not available by the cut-off date.

balance between preserving liquidity, in line with the short-term nature of non-life insurance contracts and selectively extending maturities to enhance portfolio returns. As a result, the modified duration remained stable at 3.5%.

Growth in fixed-income investments was concentrated in medium and high-rated debt securities, resulting in a marked improvement in the overall portfolio quality. Within corporate bonds, the share of medium and high-rated instruments increased by 8.3 percentage points to 52.0%. A similar trend was observed in sovereign holdings, where the proportion of medium and high-rated securities rose by 10.5 percentage points to over 90% of the total.



Property holdings increased marginally by 1.2%, accounting for 13.9% of total assets, making them the second-largest asset class. Holdings are almost evenly split between property for own use and commercial property.

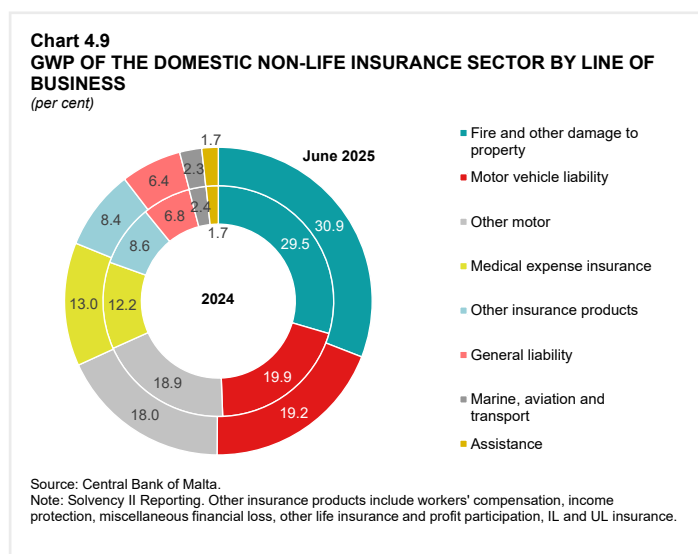
Liabilities and own funds

By June 2025, technical reserves grew by 5.7%, with their share remaining stable at around one-third of the overall balance sheet (see Chart 4.7). Other liabilities increased by 11.0%, representing 13.6% of total assets. Meanwhile, over half of the balance sheet continued to consist of excess assets over liabilities, which rose by 6%, in line with the Solvency II regulatory own funds requirements.

Gross written premium and claims

In the first half of 2025, the non-life insurance sector recorded robust growth in GWP, which rose by 6.7% across all business lines (see Chart 4.9). Motor, property, and health insurance remained the dominant segments, together accounting for over 80% of overall premia. Growth was particularly robust in property insurance, which increased by 11.9%, and health insurance, up 10.4%, while motor-related premia grew more moderately by 2.6%.⁷ Meanwhile, gross claims incurred rose by 4.0% by June 2025, on account of higher claims in the property and medical lines.

Of note is that around 24% of GWP were underwritten outside the domestic market, predominantly within the euro area. These cross-border premia span across most business lines, though nearly 70% were concentrated in the property



⁷ Motor vehicle liability insurance covers liabilities arising from accidents, including bodily injury and property damage to third parties. By contrast, other motor insurance protects the insured vehicle against damage or loss but does not cover liabilities to third parties.

line. Similarly, about 20% of gross claims incurred related to cross-border business, of which roughly 60% arose from the property line.⁸

Reinsurance continued to play a central role in managing underwriting risk, with 36.7% of non-life GWP ceded to reinsurers. Property insurance remained the most heavily reinsured line, with around 73% of the business ceded.

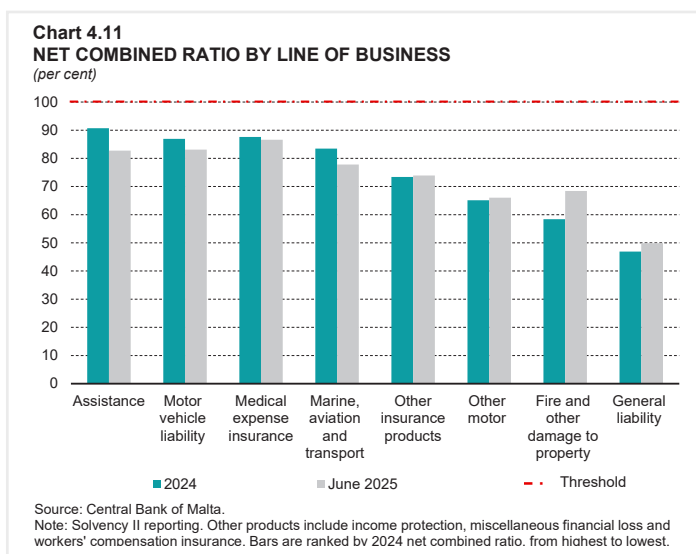
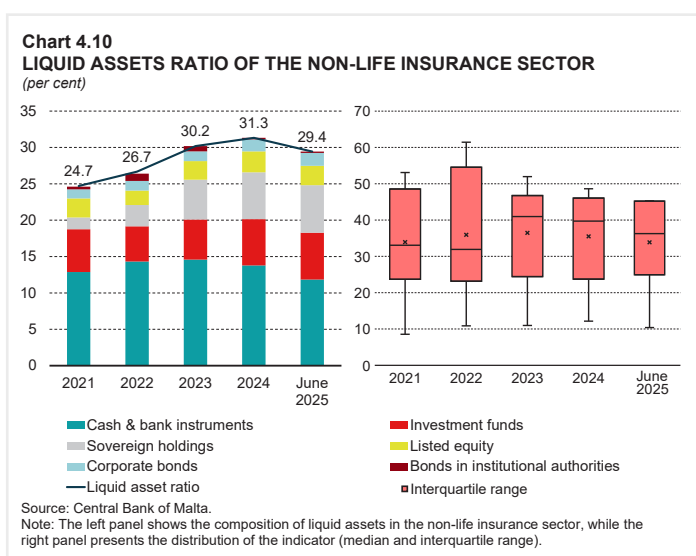
Liquidity and capital

In June 2025, the liquid assets ratio for the non-life insurance sector fell by 1.9 percentage points to 29.4%, reflecting a decline in liquid assets relative to the overall balance sheet (see Chart 4.10). The decline was due to lower cash holdings, while other assets such as sovereign bonds and fund investments increased; these, however, are subject to stricter liquidity factors. Significant variability in liquid assets ratios persisted across individual companies.

By June 2025, non-life insurers maintained a strong capital position, with an SCR coverage ratio of 243.9%, down by 2.6 percentage points. The ratio remained well above regulatory requirements, reflecting the high quality of eligible own funds, which were predominantly composed of Tier 1 capital.

Profitability

The non-life insurance sector maintained strong profitability, recording a pre-tax ROA of 10.3%, supported by robust underwriting results driven by growth in revenues. Nevertheless, ROA fell marginally by half a percentage point, as higher insurance service and reinsurance expenses weighed on performance. This moderation was also reflected in the net combined ratio, which edged up by 0.1 percentage points to 72.3%, while still showing resilient underwriting performance. By business line, the property segment saw its combined ratio increase by 10.1 percentage points, mainly due to higher claims, while motor insurance improved by 2.9 percentage points on average (see Chart 4.11). The performance of non-life insurers also weakened as a result of lower investment returns.



⁸ These shares are based on data for the first half of 2025.

Risk outlook

Insurers continue to navigate elevated macro-financial and geopolitical uncertainty. Life insurers remain particularly sensitive to market volatility due to their relatively high modified duration, which raises their exposure to interest rate shifts that could affect investment performance and demand for new insurance products. Meanwhile, non-life insurers may face pressure on underwriting margins from rising claims, climate-related losses, and rising medical costs, while liquidity constraints could limit their ability to absorb shocks. While reinsurance helps mitigate underwriting risk in the non-life sector, it increases dependence on counterparties, exposing them to higher vulnerabilities and potential stress in global reinsurance markets.

To maintain resilience in this uncertain environment, insurers need to hold diversified investment portfolios, prudent risk-based pricing, and strengthened operational efficiency. At the same time, innovation, including climate-related insurance solutions, will be key for managing emerging risks and safeguarding long-term financial stability.

4.2 Domestically-relevant investment funds

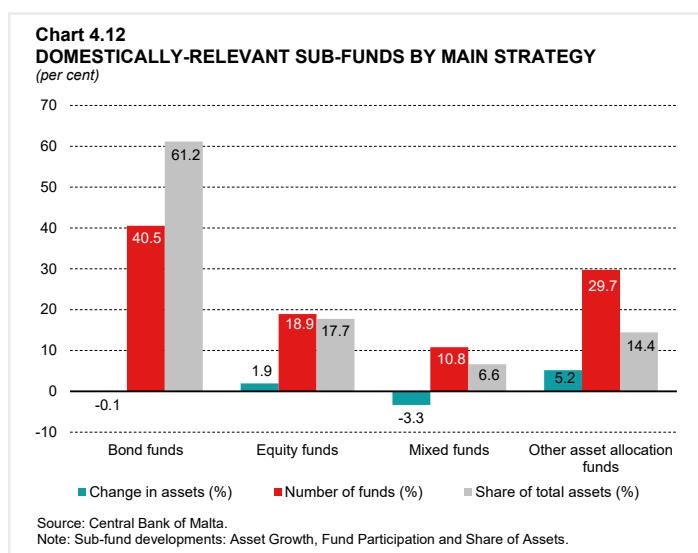
By the end of June 2025, the 37 domestically-relevant sub-funds managed assets totalling €1.7 billion, equivalent to 7.0% of GDP.⁹ Asset growth during the first half of the year was modest at 0.7%, as gains in fixed-income instruments were partly offset by slight reductions in equities and investment funds' units. Market conditions proved less supportive than in the previous year, with global equity markets facing heightened volatility. Indeed, in the first half of 2025, the S&P 500 and the Euro Stoxx 50 recorded their highest volatility since 2020. In contrast, the domestic equity market proved to be more resilient, recording the lowest volatility in six years.

Developments by fund strategy

Although the assets of bond funds declined slightly over the period reviewed, they remained the dominant investment strategy, accounting for 61.2% of the overall domestically-relevant funds' assets (see Chart 4.12). This marginal decline was largely driven by one large fund, although weak market performance also limited positive contributions. Mixed funds also contracted by 3.3%, with their share declining further to just 6.6%. In contrast, other asset allocation funds registered the strongest growth, up by 5.2%, raising their market share to 14.4%. Equity funds also posted gains, with their share rising to 17.7%.

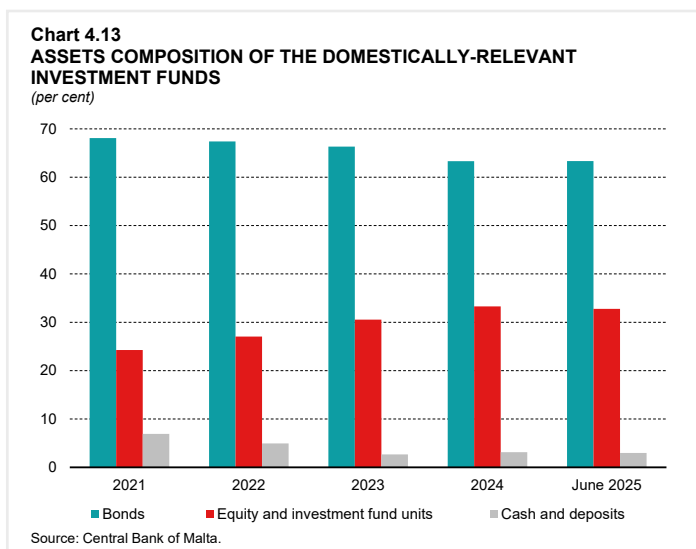
4.2.1 Asset composition and investment strategies

During the first half of 2025, asset class movements across portfolios were relatively contained compared to the previous year, reflecting the heightened volatility in equity markets. Equities and investment fund units fell slightly by 0.8%, with their share in total assets remaining relatively stable at around one-third (see



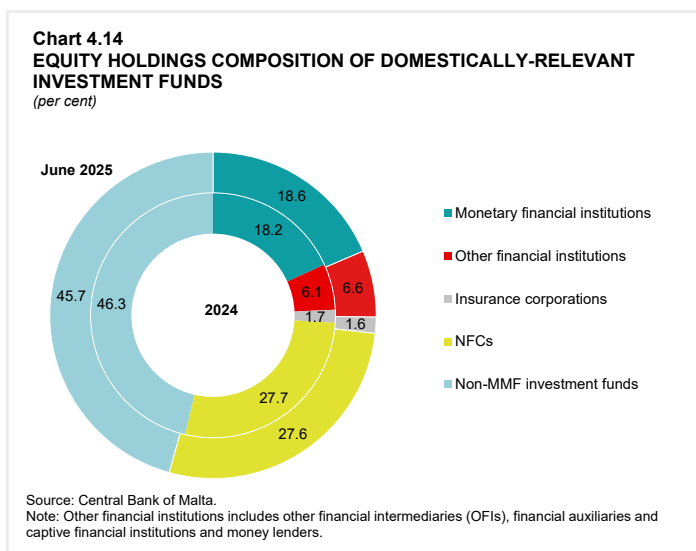
⁹ The total number of domestically-relevant sub-funds remained unchanged at 37, of which 36 are licensed as retail Undertakings for the Collective Investment in Transferable Securities (UCITS) and one as a Professional Investor Fund (PIF). December data was used for the PIF.

Chart 4.13). Investors maintained cautious exposure during the volatility resulting from the “Liberation Day” announcements by the US Government. Debt securities rose by 0.8%, supported by more stable market conditions and continued demand for lower-risk instruments, though their overall weight remained broadly unchanged at 63.4%. Meanwhile, cash and deposits declined by 4.2%, accounting for just 3.0% of total assets, indicating that some liquidity was reallocated to other investments. Other assets remained modest at 0.9%, reflecting limited exposure to alternative holdings.



Equities and participations in investment funds

In the first half of 2025, the overall decline in equity and funds exposure was driven by 2.2% drop in investment fund units, which reduced their share in such investments from 46.3% to 45.7% (see Chart 4.14). Around 62% of investment fund units are in exchange-traded funds (ETFs), which provide broad market exposure and closely track overall market valuations. During the first half of 2025, this allocation meant that the portfolios reflected the heightened volatility in global equity markets, while the diversification and liquidity of ETFs helped contain overall portfolio fluctuations. Meanwhile



equities rose by 0.5%, largely due to higher bank equities which rose by 1.3%, as well as due to equities issued by OFIs, which registered a robust increase of 8.1%. Meanwhile, holdings of equities issued by insurance corporations and NFCs decreased by 8.1% and 1.2%, respectively.

The decline in equities and funds exposure was mainly attributable to a decrease in the value of holdings in US-based entities, which fell by 4.6%, lowering their share by 0.5 percentage points to 11.9%. Euro area holdings also contracted, albeit more moderately, declining by 0.9% because of reduced positions in investment fund units. Nevertheless, they continued to represent the largest share of the portfolio at 47.2%. By contrast, exposures to the RoW increased by 9.3%, raising their weight by half a percentage point to around 5% of overall holdings. Domestic equities declined by 0.9%, with their share remaining unchanged at 35.6%.

Bond holdings

The expansion in bond holdings in the first half of the year was driven by the private sector, as otherwise sovereign debt securities declined. The largest contribution came from bonds issued by Other Financial

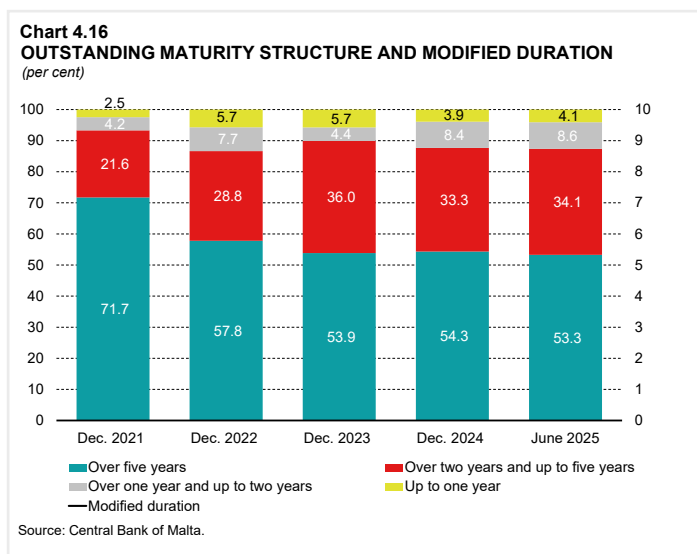
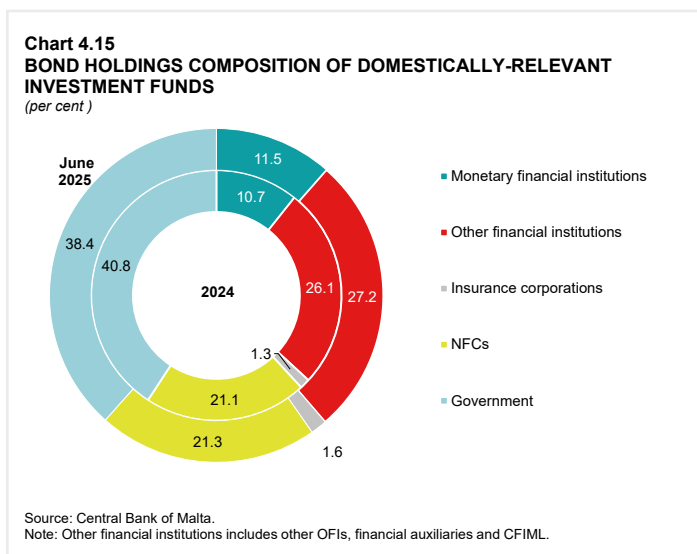
Institutions, which increased by 5.2% to represent about 27% (see Chart 4.15). Bank bonds also registered a robust growth of 8.1%, with their share increasing to 11.5%. As a result, corporate bonds of financial institutions, comprising those issued by banks, OFIs and insurance companies. These now account for 40.3% of the overall bond portfolios. NFC-issued debt grew by 2.1%, though its share remained broadly stable at 21.3%.

In contrast, holdings of sovereign paper declined, with their share falling by 2.4 percentage points to 38.4%, mainly due to lower holdings of euro area sovereign debt securities. Holdings of domestic government paper also fell but by a lower extent, such that its share rose by 1 percentage point to almost 80%.

At about 55% of overall holdings, the bond portfolio remained skewed towards domestic debt securities. Meanwhile, euro area bonds saw their share increasing by 2 percentage points to 21.1%, while the shares of US securities and the RoW declined by 1 percentage point and by 0.8 percentage points to 7.8% and 15.7%, respectively.

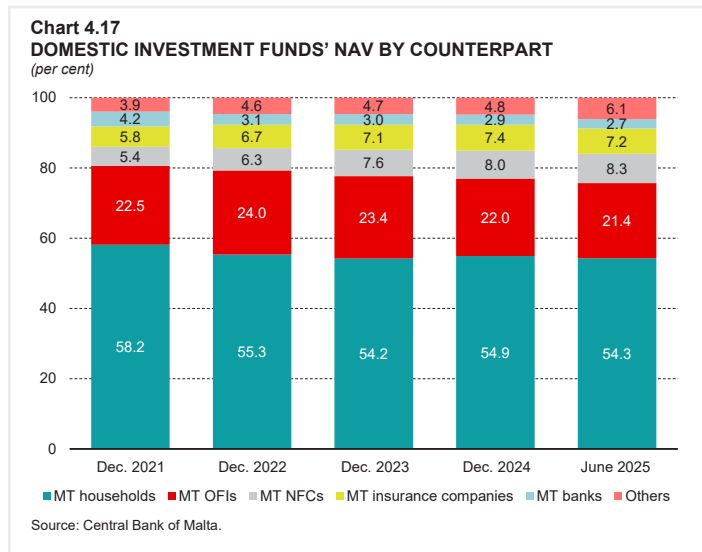
In the first half of 2025, the maturity profile of debt-securities remained broadly stable. Long-term bonds continued to represent the largest share of the portfolio, although their weight declined by 1 percentage point to 53.3%. Meanwhile, the share of short and medium-term bonds increased marginally. Consequently, the portfolio's estimated modified duration edged down slightly, from 5.4 to 5.3, indicating that the overall interest-rate sensitivity of the bond portfolio remained broadly stable (see Chart 4.16). These developments suggest that investment managers remained cautious in the first half of 2025, as the Federal Reserve and Bank of England kept rates unchanged. Furthermore, trade tensions discouraged long-duration positions, while equity markets swung from optimism to near bear-market territory.

In terms of asset quality, a slight deterioration was observed in the first half of 2025, with the share of investment-grade securities falling by 1.6 percentage points to 64.0% of fixed-income holdings. This reflected a lower share of high-rated bonds which declined from 8.0% to 6.8%, while low-rated bonds narrowed from 17.4% to 16.9%. Meanwhile, holdings in the mid-tranche of the investment-grade spectrum remained broadly unchanged at 40.3%. In contrast, speculative-grade bonds increased from 14.1% to 15.0% of the portfolio, while unrated instruments rose from 20.3% to 21.0%.



4.2.2 Investors

Maltese households remained the largest investors in domestically-relevant sub-funds, although their share declined slightly to 54.3% of NAV (see Chart 4.17). Domestic OFIs and banks also reduced their participation, with their share going down to 21.4% and 2.7%, respectively. In contrast, the share of domestic NFCs increased modestly to 8.3%, consistent with the steady expansion in their footprint since 2020. Other investors, which include domestic pension funds,¹⁰ domestic investment funds, and all non-resident investments increased by 1.4 percentage points to 6.2%.



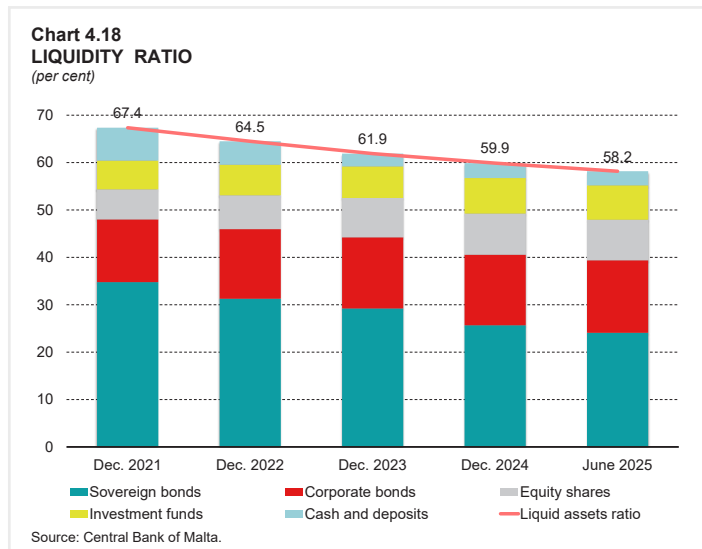
4.2.3 Liquidity and leverage

By June 2025, the liquid assets ratio of domestically-relevant investment funds declined by 1.7 percentage points to 58.2% of total assets (see Chart 4.18). This deterioration primarily reflected the reduction in sovereign paper holdings, which have a higher liquidity factor compared to corporate bonds. Although the latter rose, their lower liquidity factor weighed on the overall ratio. Cash and deposits remained broadly stable, continuing to account for a limited share of total assets.

The RCR decreased to 2.9 times from 3.0 in December 2024, reflecting the lower stock of HQLA. The RCR measures liquid assets relative to the largest quarterly outflow recorded since the inception of the time series in December 2016. In the first six months of the year, gross redemptions fell by around 9%. Although lower, the ratio remains robust, covering redemption requirements for an extended period.

Leverage within domestically relevant sub-funds increased somewhat, with the AUM-to-NAV ratio rising from 100.6% at end-2024 to 101.3% by mid-2025. However, even though the ratio was above its historical average, it remained significantly low, reflecting a conservative approach to risk-taking. This is consistent with the regulatory framework, as most of these funds are licensed and supervised under the UCITS Directive.¹¹

Both the liquidity and leverage metrics deteriorated slightly but remained at prudent levels. The presence of liquidity management tools, including redemption gates



¹⁰ Domestic pension funds, though still representing a small segment, continued their steady expansion, rising from 0.5% to 0.8% of NAV.

¹¹ UCITS Directive Article 83 restricts borrowing for retail to up to 10% of their assets and only on a temporary basis (as found in [Directive 2009/65/EC](#)).

and fees, provides an additional safeguard against sudden outflows. Taken together, these factors suggest that while the sector faces ongoing market and macroeconomic risks, it retains adequate buffers and continues to demonstrate resilience.

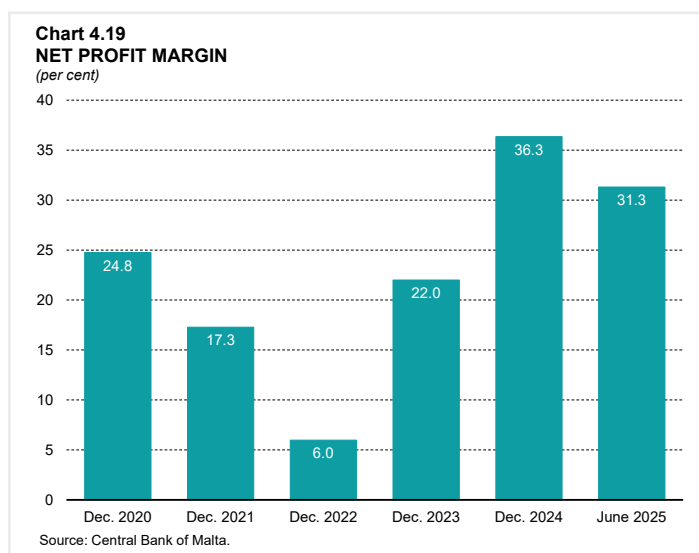
Interconnectedness

Domestically-relevant investment funds continued to maintain a structural link with the domestic financial system. On the assets side, exposure to bonds and equities issued by key domestic financial institutions amounted to 11.5% of the funds' overall assets, with banks representing the largest share of this allocation. In terms of NAV, the exposures of the domestic financial system amounted to 10.7%, with insurance holdings representing the largest investors. Meanwhile, the contribution of these funds to the domestic corporate sector remained stable, as they continue to hold close to 8% of the outstanding market capitalisation of corporate bonds listed on the Malta Stock Exchange.

Although these exposures remain moderate, the interlinkages between investment funds and the broader financial system could act as potential transmission channels of stress, particularly during periods of severe market corrections. This risk is heightened by the fact that, while these companies operate as separate legal entities governed by the Maltese Companies Act and the Investment Services Act, many form part of the same financial groups as key banking institutions. As such, step-in risk remains a consideration, given the potential for reputational or strategic pressures to prompt support across entities within the same group.

Profitability

In terms of profitability, the net profit margin ratio, defined as the funds' net profit after all expenses as a share of revenue, declined from 36.3% in December 2024 to 31.3% in June 2025 (see Chart 4.19). Although overall revenues increased, a sharper rise in expenses outpaced the growth in income, resulting in the decrease in profitability.



4.2.4 Risk outlook

Looking ahead, market conditions are likely to remain challenging. Heightened volatility in global equity markets, driven by geopolitical tensions, TPU, and the evolving interest rate environment, continues to cloud the investment landscape. Nonetheless, opportunities may emerge for investment fund managers who adopt long-term equity and income-focused strategies. Furthermore, diversification across geographies and sectors could offer resilience amid uncertainty.

In the fixed-income space, the average modified duration of 5.3 points to a cautious approach towards interest-rate risk. However, should rate expectations shift more decisively, duration strategies may be adjusted to capture potential upside. Equity fund managers are expected to remain highly selective, balancing short-term volatility with longer-term positioning. Valuations adjustments and sectoral shifts, especially in technology, infrastructure, and green energy, may present opportunities for active strategies.

Domestically, Malta's stable macroeconomic environment and robust financial services sector provide a supportive backdrop. However, the subdued market performance observed in recent months underscores the importance of managing downside risks while maintaining continued vigilance and diversifying exposures.

BOX 4: MACROECONOMIC DRIVERS OF INSURANCE PREMIA IN MALTA¹

Introduction

The insurance sector plays a crucial role in supporting economic growth and financial stability by mobilising savings, transferring risk, and fostering investment. By cushioning households and firms against losses, it supports output, innovation, and competitiveness. Understanding how insurance activity interacts with macroeconomic developments provides valuable insights into financial resilience and the cyclical dynamics of the sector.

In Malta, insurance density for the domestically-relevant insurance firms has risen from around €705 per capita in 2009 to roughly €1,290 in recent years.² This growth has been largely driven by the steady expansion in non-life business, while life insurance density increased gradually over several years before experiencing a sharp decline more recently. These divergent trends make it particularly important to understand the drivers of insurance growth and their links to macroeconomic conditions.

This study attempts to unearth the economic determinants of the demand for insurance products. To do so, it examines the relationship between key macroeconomic variables and GWP of domestically-relevant insurers in Malta, using GWP as a proxy for demand. The study focuses on how key economic determinants influence performance in both life and non-life segments separately. By doing so, it provides a framework to assess shifts in activity and trace the insurance business cycle around its fundamental determinants. It is also a first step towards a forward-looking perspective on insurance sector's resilience and growth.

The article proceeds by first giving a brief literature review and an overview of the methodology, followed by a description of the econometric framework and presentation of the results. It concludes with key implications and areas for further research.

Literature review and methodology

A number of studies have explored the drivers of growth in insurance premia across different markets and time periods. Christophersen & Jakubik (2014) analysed the relationship between insurance sector growth and key macroeconomic variables using a European panel dataset, finding that GDP is the main driver of non-life insurance growth, while unemployment has a stronger influence on life insurance.³ Gupta et al. (2019) investigated the effects of economic policy uncertainty, showing that non-life premia tend to rise during periods of heightened uncertainty, whereas life premia decline.⁴ Hodula et al. (2021) further observed that both life and non-life premia move in line with the business cycle and are positively linked to higher savings and more developed financial systems.⁵

This study contributes to the literature by providing a country-specific assessment for Malta, focusing on domestically-relevant insurers, thus excluding business written by firms that do not underwrite local risks. To capture the dynamics between insurance activity and macroeconomic conditions, it employs an Engle-Granger two-step Error Correction Model (ECM), which first estimates the long-run equilibrium relationship and then models the short-run adjustments toward that equilibrium. Separate

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² Insurance density is measured as total GWP per capita, reflecting the average insurance spending per person.

³ Christophersen, C., & Jakubik, P. (2014), Insurance and the macroeconomic environment, *EIOPA Financial Stability Report – Thematic Articles*, 1, pp. 44-55. Retrieved from: https://www.eiopa.europa.eu/system/files/2020-05/insurance_and_the_macro-economic_environment.pdf

⁴ Gupta, R., Lahiani, A., Lee, C.-C., & Lee, C.-C. (2019), Asymmetric dynamics of insurance premium: the impacts of output and economic policy uncertainty, *Empirical Economics*, 57(6), pp. 1959-1978. <https://doi.org/10.1007/s00181-018-1539-z>

⁵ Hodula, M., Janků, J., Časta, M., & Kučera, A. (2021), On the macrofinancial determinants of life and non-life insurance premiums, *The Geneva Papers on Risk and Insurance – Issues and Practice*, 46(4), pp. 667-702. <https://doi.org/10.1057/s41288-021-00249-z>

models are specified for the life and non-life insurance, reflecting heterogeneity in product characteristics and behavioural dynamics, using quarterly data covering the period 2009Q4 to 2025Q2. Preliminary unit-root and cointegration tests confirm that the variables are non-stationary in levels but cointegrated, suggesting the existence of a stable long-run relationship. In both models, the dependent variable is real GWP. GWP are determined by insurance prices and the amount of coverage sold, reflecting both demand and supply-side influences (Hodula et al., 2021). To account for changes in insurance prices over time, premia are deflated using the retail price index, yielding a measure of real premia that more accurately reflects the actual level of insurance demand.

This analysis is, however, subject to some data limitations. Although the focus is on domestically-relevant insurers, it is not possible to fully distinguish between business written in Malta and that written abroad, as a consistent split between domestically and foreign-written premia is not available for the entire time series due to changes in reporting requirements over time. This limitation is particularly relevant in the non-life sector, where around 24% of GWP were underwritten internationally as of June 2025, mainly within the euro area. Furthermore, the relatively short time series, beginning in 2009, limits the sample size and may reduce the precision of parameter estimates. Finally, the study also does not account for firm-level heterogeneity, which could influence short-run dynamics and responsiveness to macroeconomic conditions.

Life insurance

Regression analysis

The long-run relationship between real life insurance GWP, economic activity, and interest rates is specified as follows:

$$\log(GWP_t^{L, real}) = \sigma + \beta_1 \log(GDP_t^{SA, real}) + \beta_2 IR_t + \epsilon_t$$

Where:

- $GWP_t^{L, real}$ = real GWP for life insurance at time t
- $GDP_t^{SA, real}$ = real seasonally-adjusted GDP at time t
- IR_t = nominal interest rates at time t
- ϵ_t = error term

While this specification is guided by literature, drawing on studies such as Christophersen & Jakubik (2014), which use similar macroeconomic variables, it also reflects the best fit for the model given the characteristics of the data.⁶ Several alternative specifications, including variables, such as unemployment and bank deposit rates, were explored but did not improve the overall model fit.

The estimated coefficients (β_1, β_2) capture the long-run elasticities of life insurance premia with respect to economic activity and interest rates.

Real GDP is included as a proxy for the business cycle and overall economic activity, providing insight into whether the life insurance sector amplifies or mitigates potential adverse shocks. Stronger economic activity is expected to raise premia, as higher demand for insurance products supports premium growth.

Interest rates, measured by the ten-year government bond yields, serve as a proxy for returns on alternative savings and investment opportunities. This is particularly relevant because insurance business lines with investment components amounted to around 87% of life insurance GWP as of June

⁶ A comprehensive review of all assessed attributes, including those not found to be statistically significant, will be published in Camilleri, L. (forthcoming), *Macroeconomic Drivers of Insurance Premia in Malta*, *Central Bank of Malta*.

2025 (Central Bank of Malta, 2025, Chapter 4.1).⁷ Empirical evidence on the relationship between interest rates and life insurance demand is mixed. Outreville (1996) finds little correlation, suggesting a negligible impact, whereas Beck and Webb (2003) detect a positive relationship using lending rates, which, however, embed country-specific credit risk premia.^{8,9} In contrast, Li et al. (2007) show that higher real rates reduce life insurance demand, reflecting households' preference for current over deferred consumption.¹⁰ Moreover, recent domestic assessments indicate a potential negative relationship, whereby higher interest rates may divert funds away from life insurance premia towards higher yielding investment alternatives (Central Bank of Malta, 2023).¹¹

While most variables in the model are expressed in real terms to remove price effects, nominal interest rates were retained. Real interest rates were also considered; however, they proved less informative for the model after 2021, as the post-pandemic surge in inflation and accompanying monetary easing disrupted the long-run cointegration relationship (see Annex). This use of nominal interest rates is also consistent with behavioural evidence suggesting that individuals often exhibit money illusion, a tendency to evaluate their utility based in nominal rather than real monetary values, which influences portfolio allocation and insurance decisions, and has also been observed in stock prices, housing markets, and other economic contexts (Brunnermeier & Julliard, 2008; Miao & Xie, 2013; Li & Wei, 2025).^{12,13,14}

The short-run dynamics are modelled using an ECM:

$$\begin{aligned} \Delta \log(GWP_t^{L, real}) &= \alpha + \varnothing_1 \Delta \log(GWP_{t-1}^{L, real}) + \varnothing_2 \Delta \log(GDP_t^{SA, real}) + \varnothing_3 \Delta IR_{t-3} \\ &+ \varnothing_4 \Delta \log(Deeds_t^{SA}) + \gamma ECT_{t-1} + \mu_t \end{aligned}$$

Where:

- $\Delta \log(GWP_t^{L, real})$ = quarterly change in the log of real-life insurance GWP
- $\Delta \log(GDP_t^{SA, real})$ = quarterly change in the log of seasonally-adjusted real GDP
- ΔIR_{t-3} = three-quarter lagged change in the short-term interest rate
- $\Delta \log(Deeds_t^{SA})$ = quarterly change in the log of seasonally-adjusted property transactions
- ECT_{t-1} = error correction term from the long-run equilibrium relationship
- μ_t = error term

The inclusion of property transactions seeks to capture the link between housing market activity and life insurance demand, given that mortgage borrowing typically entails the purchase of life insurance cover. The coefficient γ measures the speed of adjustment toward the long-run equilibrium following short-term deviations. A negative and statistically significant value of γ confirms the existence of a stable long-run relationship, indicating that deviations from the equilibrium are gradually corrected over time.

⁷ This figure includes life insurance premia from IL, UL and with-profits contracts, all of which contain investment components (Central Bank of Malta, *Interim Financial Stability Report 2025*, Chapter 4.1).

⁸ Outreville, J. F. (1996), Life insurance markets in developing countries. *The Journal of Risk and Insurance*, 63(2), pp. 263-278. <https://doi.org/10.2307/253745>

⁹ Beck, T., & Webb, I. (2003), Economic, demographic, and institutional determinants of life insurance consumption across countries, *The World Bank Economic Review*, 17(1), pp. 51-88. <https://doi.org/10.1093/wber/lhg011>

¹⁰ Li, D., Moshirian, F., Nguyen, P., & Wee, T. (2007), The demand for life insurance in OECD countries, *The Journal of Risk and Insurance*, 74(3), pp. 637-652. <https://doi.org/10.1111/j.1539-6975.2007.00228.x>

¹¹ Central Bank of Malta (2023), *Interim Financial Stability Report 2023*, Central Bank of Malta.

¹² Brunnermeier, M. K. and Julliard, C. (2008), Money illusion and housing frenzies, *The Review of Financial Studies*, 21(1), pp. 135-180. <https://doi.org/10.1093/rfs/hhm043>

¹³ Miao, J. and Xie, D. (2013), Economic growth under money illusion, *Journal of Economic Dynamics and Control*, 37(1), pp. 84-103. <https://doi.org/10.1016/j.jedc.2012.06.012>

¹⁴ Li, W., & Wei, P. (2025), Optimal life insurance and annuity decisions under money illusion, *Insurance: Mathematics and Economics*, 125, 103141. <https://doi.org/10.1016/j.insmatheco.2025.103141>

Regression results

The estimation results highlight the interplay between long-run equilibrium factors and short-run dynamics in life insurance demand. In the long-run, life insurance premia exhibit a strong procyclical relationship with real economic activity (see Table 4a). A 1% increase in real GDP is associated with an estimated 0.26% increase in gross written life premia, suggesting that stronger macroeconomic conditions bolster insurance uptake. Conversely, long-term interest rates are negatively associated with life insurance demand, as a one percentage point increase in the ten-year Malta government bond yield is estimated to lower demand by approximately 0.13%. This inverse relationship is consistent with a substitution effect, whereby higher-yields on alternative financial instruments diminish the relative attractiveness of investment-linked insurance products (Hodula et al., 2021). It may also reflect money illusion, as individuals often evaluate returns and make portfolio decisions based on nominal rather than real values (Li & Wei, 2025).

The short-run dynamics, captured by the ECM, indicate persistence in premium growth, with roughly one-third of the previous-quarter's growth carried forward (see Table 4b). Short-term fluctuations are also shaped by macro-financial conditions in a manner consistent with long-run patterns. As

Table 4a
LIFE INSURANCE – LONG-TERM REGRESSION RESULTS

Dependent Variable: $\log(GWP_t^{L,real})$

Method: Least Squares

| Variable | Coefficient | Std. Error | t-Statistic | p-value |
|-------------------------|-------------|------------|-------------|---------|
| Constant | 15.801 | 1.052 | 15.022 | 0.000 |
| $\log(GDP_t^{SA,real})$ | 0.265 | 0.070 | 3.811 | 0.000 |
| IR | -0.131 | 0.013 | -9.758 | 0.000 |
| R^2 | 0.728 | | | |
| Adjusted – R^2 | 0.719 | | | |

Source: Author's calculations.

Table 4b
LIFE INSURANCE – ECM RESULTS

Dependent Variable: $\Delta\log(GWP_t^{L,real})$

Method: Least Squares

| Variable | Coefficient | Std. Error | t-Statistic | p-value |
|----------------------------------|-------------|------------|-------------|---------|
| Constant | -0.015 | 0.009 | -1.637 | 0.108 |
| $\Delta\log(GWP_{t-1}^{L,real})$ | 0.343 | 0.109 | 3.149 | 0.003 |
| $\Delta\log(GDP_t^{SA,real})$ | 0.924 | 0.483 | 1.911 | 0.061 |
| ΔIR_{-3} | -0.043 | 0.022 | -1.897 | 0.063 |
| $\Delta\log(Deeds_t^{SA})$ | 0.167 | 0.046 | 3.647 | 0.001 |
| ECT_{-1} | -0.125 | 0.043 | -2.927 | 0.005 |
| R^2 | 0.555 | | | |
| Adjusted – R^2 | 0.513 | | | |

Source: Author's calculations.

expected, real GDP supports demand in the short run. Housing activity emerges as a strong and highly significant driver, underscoring the role of mortgage-related demand for life cover, as a channel linking real estate activity to the insurance sector. Increases in interest rates dampen life insurance uptake with an estimated lag of around three quarters, consistent with the substitution effect observed in the long-run.

The error correction term is negative and statistically significant, confirming the stability of the long-run relationship and indicating convergence towards equilibrium at a rate of roughly 12-13% per quarter.

Non-life insurance

Regression analysis

The long-run relationship between real non-life insurance premia and economic activity is defined as:

$$\log(GWP_t^{NL, real}) = \sigma + \beta_1 \log(GDP_t^{SA, real}) + \varepsilon_t$$

Where:

- $GWP_t^{NL, real}$ = real GWP for non-life insurance at time t
- $GDP_t^{SA, real}$ = real seasonally-adjusted GDP at time t
- ε_t = error term

Similar to the life insurance model, real GDP is included to capture the influence of the business cycle and overall macroeconomic conditions, with stronger economic activity expected to stimulate demand for non-life insurance and thereby support premium growth.

The short-run dynamics are modelled using an ECM:

$$\begin{aligned} \Delta \log(GWP_t^{NL, real}) &= \alpha + \varnothing_1 \Delta \log(GWP_{t-2}^{NL, real}) + \varnothing_2 \Delta \log(GDP_t^{SA, real}) + \varnothing_3 \Delta \log(Deeds_t^{SA}) \\ &+ \varnothing_4 Dummy_{NL} + \gamma ECT_{t-1} + \mu_t \end{aligned}$$

Where:

- $\Delta \log(GWP_t^{NL, real})$ = two-quarter lagged change in the log of real non-life insurance GWP
- $\Delta \log(GDP_t^{SA, real})$ = quarterly change in the log of seasonally-adjusted real GDP
- $\Delta \log(Deeds_t^{SA})$ = quarterly change in the log of seasonally-adjusted property transactions
- $Dummy_{NL}$ = dummy variable capturing firm-specific initiatives (e.g., acquisitions, cross-border expansion)
- ECT_{t-1} = error correction term from the long-run equilibrium relationship
- μ_t = error term

Property transactions serve as a proxy for housing market dynamics, reflecting the link between real estate activity and insurance demand, particularly since property insurance is typically required as collateral coverage in mortgage lending.

Premium growth in the non-life sector exhibits notable quarterly volatility, often characterised by sudden increases that are then sustained. Upon further examination, these fluctuations were found to stem largely from firm-specific events, such as acquisitions, portfolio transfers, or cross-border expansion, which can significantly affect premium volumes within a given quarter. To account for these idiosyncratic

factors, a dummy variable is included to capture identifiable company-level initiatives that may temporarily distort aggregate premium growth and obscure underlying macroeconomic dynamics.

Regression results

The long-run relationship for the non-life sector is modelled using real GDP as the sole explanatory variable, since it captures the majority of the variation in non-life premia (see Table 4c) and is consistent with the literature, which identifies economic growth as the primary driver of non-life insurance (Christophersen & Jakubik, 2014). The estimated long-run elasticity of 1.24 suggests that a 1% increase in real GDP is associated with a 1.24% rise in non-life premia, indicating a strong procyclical pattern. This responsiveness reflects the close link between non-life insurance and broader economic activity, underpinned by mandatory business lines, such as motor insurance and the prevalence of property-related cover linked to mortgage lending.

The ECM results indicate moderate persistence in premium growth, as indicated by the statistically significant coefficient on the two-quarter lag (see Table 4d). Around one-fourth of the growth observed two quarters earlier is carried forward. Both real GDP and housing market activity, proxied by the number of final deeds of sale, exert positive and statistically significant effects on short-term movements in non-life premia. Additionally, the highly significant coefficient on the dummy variable confirms that firm-specific developments materially affect short-term sectoral dynamics, highlighting the importance of identifying and accounting for such developments.

Table 4c
NON-LIFE INSURANCE – LONG-TERM REGRESSION RESULTS

Dependent Variable: $\log(GWP_t^{NL,real})$

Method: Least Squares

| Variable | Coefficient | Std. Error | t-Statistic | p-value |
|-------------------------|-------------|------------|-------------|---------|
| Constant | 0.528 | 0.405 | 1.302 | 0.198 |
| $\log(GDP_t^{SA,real})$ | 1.236 | 0.027 | 45.616 | 0.000 |
| R^2 | 0.972 | | | |
| Adjusted – R^2 | 0.971 | | | |

Source: Author's calculations.

Table 4d
NON-LIFE INSURANCE – ECM RESULTS

Dependent Variable: $\Delta\log(GWP_t^{NL,real})$

Method: Least Squares

| Variable | Coefficient | Std. Error | t-Statistic | p-value |
|-----------------------------------|-------------|------------|-------------|---------|
| Constant | 0.003 | 0.004 | 0.725 | 0.472 |
| $\Delta\log(GWP_{t-2}^{NL,real})$ | 0.261 | 0.100 | 2.615 | 0.012 |
| $\Delta\log(GDP_t^{SA,real})$ | 0.446 | 0.193 | 2.313 | 0.025 |
| $\Delta\log(Deeds_t^{SA})$ | 0.040 | 0.018 | 2.200 | 0.032 |
| $Dummy_{NL}$ | 0.034 | 0.008 | 4.446 | 0.000 |
| ECT_{-1} | -0.078 | 0.041 | -1.904 | 0.062 |
| R^2 | 0.471 | | | |
| Adjusted – R^2 | 0.422 | | | |

Source: Author's calculations.

Finally, the error correction term is negative and statistically significant, indicating that deviations from the long-term equilibrium are gradually corrected, with around 8% of any deviation closed each quarter. This adjustment is slower than in the life insurance model, where it averages 12–13% per quarter, which may reflect the more rigid nature of non-life demand, often driven by mandatory coverage, in contrast to the more flexible and discretionary nature of life insurance products.

Conclusion

This study examined the relationship between economic growth and insurance premia in Malta. Employing the Engle-Granger two-step method, the analysis confirms the existence of a stable long-run cointegrating relationship between insurance activity and key macroeconomic variables. The estimated long-run coefficients indicate that the insurance sector is closely linked to overall economic conditions.

Life insurance demand increases with real economic activity but is negatively impacted by nominal interest rates, while in the short-run, it also responds positively to housing market developments. Non-life premia demonstrate a strong long-run responsiveness to macroeconomic fundamentals, whereas short-term movements are influenced by fluctuations in GDP and housing activity, as well as company-specific initiatives.

These findings underscore the importance of macroeconomic stability and housing market dynamics in supporting the growth of the insurance sector. Life insurance is more sensitive to broader financial conditions, whereas non-life insurance is anchored to economic fundamentals, with much of its demand derived from mandatory coverage linked to other activities, such as loans. Continued monitoring of these drivers is essential to assess the resilience and future development of Malta's insurance market.

Future research could build on this study by incorporating additional observations as they become available. With a longer time series, it may also be possible to refine the distinction between domestic and foreign business, potentially using informed assumptions for earlier periods. The analysis could also be expanded to extract the insurance business cycle from the estimated long-run relationship, distinguishing cyclical fluctuations from underlying fundamentals to identify and anticipate turning points in activity. Additionally, panel techniques could be applied to account for firm-specific effects, providing a more nuanced understanding of heterogeneity across insurers.

Annex

STRUCTURAL BREAK ANALYSIS: POST-2021 INFLATION SHOCK

To assess whether the relationship between real interest rates and life insurance GWP changed materially following the post-2021 inflation shock and subsequent monetary policy tightening, the regression framework included a post-2021 dummy variable and its interaction with real interest rates. This tests for structural effects arising from the high inflation period, which was initially characterised by sharply negative real interest rates and later by rapid monetary policy tightening.

The results confirm that higher real interest rates are associated with lower life insurance demand, consistent with substitution effects observed with nominal interest rates. The post-2021 dummy indicates a significant downward shift in GWP, suggesting that the inflation shock and exceptionally low real rates had a material impact on the level of life insurance activity. However, the interaction term between post-2021 and real interest rates is not statistically significant, implying that the responsiveness of life insurance demand to interest rates remained broadly stable. The main adjustment appears to have occurred through a level effect rather than a change in the interest-rate sensitivity of life insurance demand after 2021.

Table A1
LIFE INSURANCE – LONG-RUN COINTEGRATION REGRESSION WITH STRUCTURAL SHIFT

Dependent Variable: $\log(GWP_t^{L,real})$

Method: Least Squares

| Variable | Coefficient | Std. Error | t-Statistic | p-value |
|-------------------------|-------------|------------|-------------|---------|
| $\log(GDP_t^{SA,real})$ | 0.434 | 0.226 | 1.920 | 0.060 |
| IR_{real} | -0.131 | 0.039 | -3.339 | 0.002 |
| D_{2021} | -0.293 | 0.095 | -3.085 | 0.003 |
| $D_{2021} * IR_{real}$ | 0.074 | 0.048 | 1.518 | 0.135 |
| R^2 | 0.635 | | | |
| Adjusted – R^2 | 0.609 | | | |

Note: Includes a dummy for 2021 (D_{2021}) and its interaction with real interest rate ($D_{2021} * IR_{real}$) or a level shift in the long-run relationship.

Table A2
LIFE INSURANCE – ECM RESULTS

Dependent Variable: $\Delta \log(GWP_t^{L,real})$

Method: Least Squares

| Variable | Coefficient | Std. Error | t-Statistic | p-value |
|-----------------------------------|-------------|------------|-------------|---------|
| Constant | -0.019 | 0.009 | -1.981 | 0.053 |
| $\Delta \log(GWP_{t-1}^{L,real})$ | 0.398 | 0.120 | 3.327 | 0.002 |
| $\Delta \log(GDP_t^{SA,real})$ | 1.165 | 0.503 | 2.315 | 0.025 |
| ΔIR_{-3} | 0.196 | 0.047 | 4.164 | 0.000 |
| $\Delta \log(Deeds_t^{SA})$ | -0.061 | 0.022 | -2.758 | 0.008 |
| ECT_{-1} | -0.079 | 0.040 | -2.002 | 0.050 |
| R^2 | 0.519 | | | |
| Adjusted – R^2 | 0.474 | | | |