MFSA
MALTA FINANCIAL SERVICES AUTHORITY

Insurance Investment Behaviour Report

Mirko Mallia, Anna Bonello, Karine La Ferla

FINANCIAL STABILITY

March 2020

Ref No 20/02

Disclaimer

The report is principally based on statutory data available at the Authority as well as feedback provided by representatives of insurance undertakings licensed in terms of the Insurance Business Act (Chapter 403 of the Laws of Malta) who participated in the online survey called 'MFSA Insurance Investment Behaviour Survey' published by the Malta Financial Services Authority (MFSA) in September 2019. The report does not necessarily reflect the MFSA's views on risks to the Maltese financial system and its contents should not be regarded as a formal risk assessment and are not to be relied upon as professional, legal and/or investment advice. While every effort has been made in order to ensure that the information contained in this report is reliable and accurate at the time of publishing, no express or implied guarantees, representations or warranties are being made regarding the accuracy and/or completeness of the information contained in this report and any other material referred to in this report.

Table of Contents

Abbreviations 5
Executive Summary 6
Introduction 7
Background 8
Broad Investment Allocation 9
Developments in Investment Composition 11
  Bond Investments 11
    Credit Quality of Bond Investments 12
    Home Bias in Bond Investments 14
    Bond Investments Issued by Advanced vs Emerging and Developing Economies 14
    Maturity and Duration of Bond Investments 15
  Equity (including holdings in related undertakings, including participations) 16
    Home Bias and Advanced vs Emerging Economy Equity Investments 17
  Collective Investment Undertakings 17
    Home Bias and Advanced vs Emerging Economy Investments in CIU 18
  Deposits Other Than Cash Equivalents 19
  Investment Property 20
  Derivatives 20
Life Insurance Products 20
  Unit-linked and Index-linked Products 20
  Guaranteed Products 22
Conclusion 22
References 23
Annex I 24
  Data Source 24
Annex II 25
  Survey 25

List of Figures

Figure 1 - 10-year government bond yield to maturity ... 8
Figure 2 - Investment assets, % total assets (excluding assets held for UL-IL contracts) ... 9
Figure 3 - Investment asset split ... 10
Figure 4 - In which asset categories do you plan to increase your exposure? ... 10
Figure 5 - Bonds, % total investments ... 11
Figure 6 - Bond investments split ... 11
Figure 7 - Credit quality of government bond investments ... 12
Figure 8 - Credit quality of corporate bond investments ... 13
Figure 9 - Risk perception of undertakings ... 13
Figure 10 - Home bias in government bond investments ... 14
Figure 11 - Home bias in corporate bond investments ... 14
Figure 12 - Government bond investments split by residence of issuer ... 15
Figure 13 - Corporate bond investments split by residence of issuer ... 15
Figure 14 - Years to maturity of the government bond portfolio ... 16
Figure 15 - Years to maturity of the corporate bond portfolio ... 16
Figure 16 - Equity investments (including holdings in related undertakings, including participations), % total investments ... 16
Figure 17 - Equity investments split (including holdings in related undertakings, including participations) ... 17
Figure 18 - Home bias; advanced/emerging economies equity investments ... 17
Figure 19 - Investments in CIU, % total investments ... 18
Figure 20 - Investments in CIU split ... 18
Figure 21 - Home bias in investments in CIU ... 19
Figure 22 - Home bias; advanced/emerging economies CIU investments ... 19
Figure 23 - Investment property, % total investments ... 20
Figure 24 - Investment property split ... 20
Figure 25 - Assets held for UL-IL contracts split ... 21
Figure 26 - Delineation of changes in investment assets held for UL-IL contracts ... 21

Abbreviations

CIU	Collective Investment Undertakings
CQS	Credit Quality Step
ECB	European Central Bank
EIOPA	European Insurance and Occupational Pensions Authority
EU	European Union
GDP	Gross Domestic Product
IMF	International Monetary Fund
MFSA	Malta Financial Services Authority
OECD	Organisation for Economic Co-operation and Development
QRTs	Quantitative Reporting Templates
UL-IL	Unit-Linked and Index-Linked

Executive Summary

In the aftermath of the financial crisis, an unprecedented number of measures have been adopted by international Authorities to facilitate a brisk recovery of economies. Nonetheless, more than a decade after the unravelling of the financial crisis, such extraordinary measures are still present within the euro area with several implications for the financial system. For example, investment return yields have been on a declining trend for some time, causing financial institutions to face increased profitability and solvency pressures. The insurance sector, although generally better equipped to withstand long periods of low interest rates, is still vulnerable to such influences. For this reason, it is important to closely monitor changes in investment behaviour which can potentially be associated with heightened risk.

The focal point of the report is to provide an overview of the developments in investment allocation (excluding UL-IL assets) of the domestically relevant insurance undertakings licensed in Malta between 2016 and 2018. The analysis explores several attributes of each investment category; including credit ratings, maturity and country of issuance, along with changes compared to previous years. The last section of the report targets life insurance products (including UL-IL products). Moreover, in order to provide a more in-depth view when analysing investment behaviour, the report contains replies received from a survey which was circulated amongst the undertakings in September 2019. Primarily, the survey delved into the risk profile of the undertakings, investment portfolio trends, forward looking plans and guaranteed products.

In line with the conclusions for the EU insurance companies carried out by EIOPA and the ECB, the analysis carried out in the domestic context led to the identification of several movements which could be associated with a search for yield behaviour. This was indeed confirmed by survey respondents acknowledging that their investment allocation was influenced by the changes in yields. Furthermore, a decline in the share of bonds to total investments was observed across all undertakings, albeit to different extents, prompting a potential shift from traditional investment holdings. Conversely, the sector is relying more extensively on equity, while alternative investments and long-term deposit holdings have increased. Furthermore, a search for yield behaviour is more evident on an individual insurance level, where increased exposure to emerging and developing bonds investments has been recorded together with a general shift towards corporate bonds. Additionally, several undertakings depicted an increase in bonds of lower quality.

Looking forward, the most common investments to which insurers intend to increase their exposure include CIU, corporate bonds and government bonds. Nonetheless, worthy of note is that two companies have clearly indicated their intention to move away from traditional asset holdings, given that they have shown their intent to focus on asset classes other than government and corporate bonds.

Finally, the analysis reveals that unlike European insurers, domestic institutions did not experience a shift towards UL-IL contracts. On the contrary, in Malta, the volume of assets held for such purposes have declined during the period under review, with only one company depicting an increase in such assets.

Introduction

Notwithstanding the challenges faced by the European insurance sector during the past years, the sector has remained resilient with total assets standing at €11.5 trillion or 72% of EU GDP in 2018[1]. The sector has become more interconnected with banks and other financial intermediaries and is consequently becoming increasingly relevant from a financial stability perspective. Similarly, insurers play an important role within the Maltese financial system, with total assets for the 66 licensed institutions amounting to 76.4% of Malta's GDP. Eight of such undertakings are considered to be domestically relevant[2] due to their domestic footprint, consisting of three life companies, three non-life companies and two composite undertakings. The domestically relevant sector, which is largely dominated by the life undertakings (in terms of total assets), managed a total balance sheet of €3.4 billion, equivalent to 27.7% of Malta's GDP.

The principal activity of insurance undertakings is to collect premiums from policyholders in return for a commitment to offer protection when a specified event happens, with such protection being provided through a range of life and non-life insurance products. To fulfil such commitments, insurers invest collected premiums in a portfolio of investments assets. In fact, European insurers are amongst the largest institutional investors, holding more than €7 trillion investments as at end 2018[3].

The downward trend in interest rates recorded during the past years has inevitably resulted in several challenges for the insurance sector. Insurance undertakings are faced with the challenge of generating sufficient returns via traditional asset classes to meet their guarantees to policyholders and earn sufficient profit. This may potentially lead to a search for yield behaviour, resulting in insurers holding riskier assets, which may also have implications in terms of holdings of illiquid investments. Such illiquid investments may be difficult to transform into cash in case of a mass lapse event.

This report will focus on identifying trends and changes in the investment asset behaviour of domestically relevant insurers over the period 2016 to 2018[4], including the identification, where possible, of a potential 'search for yield' behaviour, given the prolonged low yield environment. This was done through the use of quantitative data received by the Authority as well as through a survey circulated to the undertakings under review.

The report is structured as follows: the next section gives a brief overview of the low interest rate environment and its impact on insurance undertakings. This is followed by a description of the overall investment allocation of the domestically relevant insurance sector, with subsections corresponding to a more detailed analysis of the different asset classes. The last section of the report outlines the developments of certain life specific products.

[1] Data sources: EIOPA Statistics (solo): *https://www.eiopa.europa.eu/tools-and-data/insurance-statistics_en*; Eurostat

[2] Insurance undertakings considered to be domestically relevant are those domestic insurers whose main line of business is servicing and underwriting risks situated in Malta. The aforementioned undertakings comprise of the following: GlobalCapital Life Insurance Limited, HSBC Life Assurance (Malta) Limited, MAPFRE MSV Life plc, Atlas Insurance PCC Limited, Elmo Insurance Limited, GasanMamo Insurance Limited, Citadel Insurance plc and MAPFRE Middlesea plc.

[3] Excludes assets held for UL-IL contracts. Data source: EIOPA Statistics (solo): *https://www.eiopa.europa.eu/tools-and-data/insurance-statistics_en*

[4] This period was selected based on the availability of Solvency II QRT.

Background

In response to a surge in economic uncertainty as well as tamed economic growth prospects, major central banks around the globe have acted by lowering interest rates to stimulate economic growth and prevent deflation.

Interest-rate cuts are beneficial in a number of aspects. For instance, the general economy tends to benefit from cheaper cost of funding. However, on the downside, a prolonged period of low interest rates can have negative repercussions on the financial sector, including insurers, since lower rates are also associated with lower returns from investment vehicles such as government bonds.

Indeed, contrary to a few years ago, negative yields are now common across maturities of several members of the euro area, with the exception of countries such as Greece, Italy, Cyprus, Lithuania, Malta, Portugal and Spain[5].

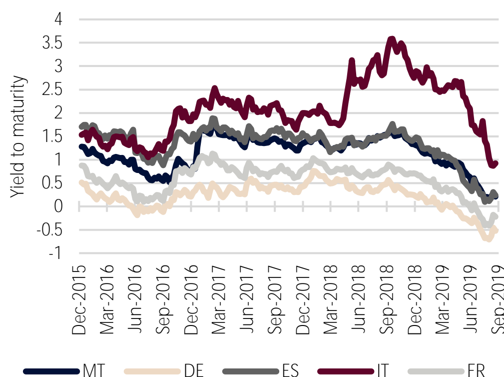

Figure 1 - 10-year government bond yield to maturity

Source: Reuters Eikon

The Malta 10-year government bond yield has also shown a clear downward trend driven by ECB programmes. Specifically, yields stood at 0.2% as at August 2019, in comparison to 2.7% as at mid-2014. The market expects such low interest rates to persist for a long period of time, and hence may have an influence on the type of products designed by insurers.

According to the ECB (2015), insurers can generally withstand fairly long periods of low interest rates due to the long-term nature of their investments. Nonetheless, insurers are still negatively influenced by this environment through two main channels: the income channel and the balance sheet channel.

> The income channel: Insurers exposed to long-term fixed income assets will experience pressure on investment income as the net cash flow from paid premiums and maturing investments needs to be gradually re-invested at lower rates.
>
> Balance sheet channel: In the case of asset and liability mismatches, a fall in interest rates may increase the value of the liabilities by more than the value of the assets. As a result, the insurer quickly moves from a surplus to a deficit capital position. In extreme cases, this could mean moving from a solvent to an insolvent position.

Additionally, life insurance companies are negatively affected by the low interest rates through outstanding holdings of guaranteed returns products. In line with this conclusion, Schmeiser and Wagner (2012) suggest that for the life insurance market, lower risks are present when the risk-free interest rate (i.e. the return on the bond portfolio) approaches the guaranteed interest rate.

In a low interest rate environment, insurance companies are drawn towards a "search for yield" behaviour in order to generate adequate returns. However, such shift towards higher yields is often associated with riskier investments involving higher default rates due

[5] Reference date: September 2019.

to lower debtor creditworthiness, lower liquidity, longer maturities, and possible unfamiliarity with features of new investment products.

Several international organisations have analysed the impact of a prolonged low interest rate environment. In 2015, the OECD carried out the 'Large Insurer Survey on Investment'. Aggregated results indicate that insurers have been extensively influenced by the low interest rate environment, and consequently an adaptation to a new business model or investment strategy was necessary.

In 2017, EIOPA carried out a survey to identify trends and changes in the investment behaviour attributable to a search for yield behaviour (EIOPA, 2017). The results of this survey along with EIOPA's Financial Stability Report (2019) point towards a gradual change in investment composition reflecting a search for yield behaviour.

In line with such findings, the ECB Financial Stability Review (2019), concludes that, over the past five years, euro area insurers have increased their holdings of lower quality (BBB rated) and high yield bonds, as well as alternative assets, including infrastructure, private equity funds and real estate loans. Furthermore, a drop in the share of highly liquid securities was recorded, while the residual maturity of their bond portfolio increased.

Broad Investment Allocation

The investment behaviour of insurance undertakings is influenced by several factors, including the type of firm (life/non-life), the undertakings' business model, management's investment preferences, market developments as well as regulatory regimes. Prudential regulation such as Solvency II may influence, to some extent, insurers' investment behaviour, making certain assets less attractive than others where higher capital charges would be applicable.

Domestically relevant insurance undertakings held around €2.6 billion in investment assets as at end 2018, which rose by 12.6% since 2016. Nonetheless, such investments remained relatively stable standing at around 90% as a share of their balance sheet (excluding assets held for UL-IL contracts). The size of the investment portfolio diverges when analysing individual companies with one company's share of investments being below 40%, while another insurance company held almost all assets[6] (97%) in the form of investments. Such differences are stemming from the different business models of the undertakings.

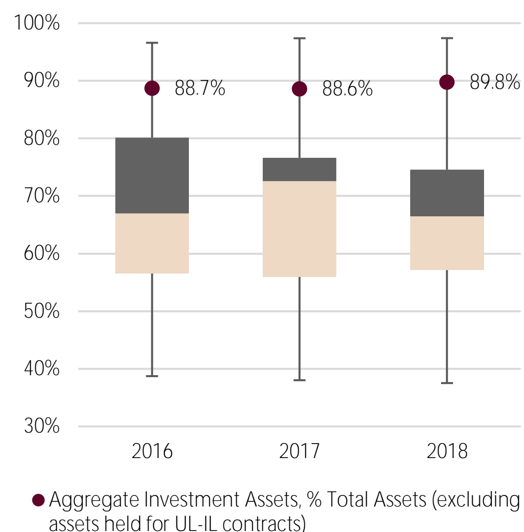

Figure 2 - Investment assets, % total assets (excluding assets held for UL-IL contracts)[7]

Source: Solvency II QRTs

Insurance undertakings are actively involved in a broad range of investment assets. Bonds[8]

[6] Assets exclude those held for UL-IL contracts.

[7] The box plot displays the minimum, first quartile, median, third quartile, aggregate and maximum of the ratio investment assets, as a percentage of total assets (excluding assets held for UL-IL contracts).

[8] Bonds refer to government bonds, corporate bonds, structured notes and collateralised securities.

continue to be the most prominent form of investment (see Figure 3). However, despite a 2.4% increase in bond holdings over the two-year period, a decline in the share of bonds to total investments was observed. Of note, is that this decline was experienced across all undertakings under review, albeit to different extents, prompting to a potential shift from traditional investment asset holdings.

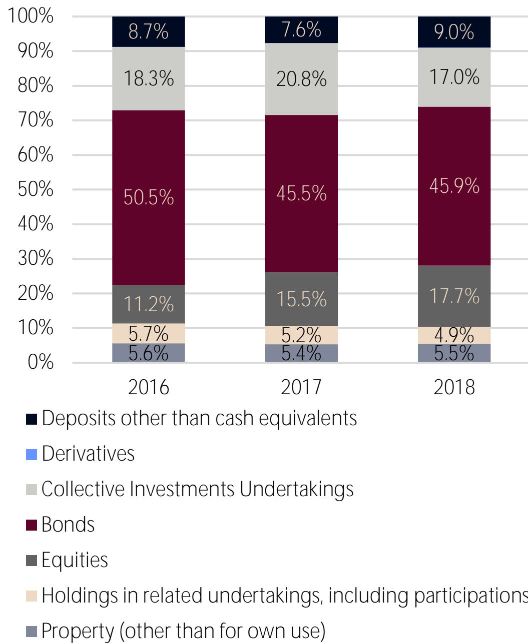

Figure 3 - Investment asset split[9]

Source: Solvency II QRTs

While in 2016 the second largest investment asset class related to CIU, in 2018 equity holdings (including holdings in related undertakings, including participations) [10] prevailed. The remaining share of investments include deposits other than cash equivalents, property and a minimal amount of derivatives which have remained low and relatively stable on aggregate over the period under review.

Additionally, two undertakings reported a shift towards alternative investments [11]. Although such alternative investments are not excessive in terms of aggregate investment assets, on an individual level they reached 1.8% (2016: 0.9%) and 11% (2016: 3%) of investment assets of the respective undertakings as at end 2018. This signifies a large rise (142%) in alternative investments, with such a trend indicating that a certain shift towards non-traditional investments has taken place.

Looking forward, the most common investments to which insurers intend to increase their exposure include CIU, corporate bonds and government bonds (see Figure 4). However, of note is that two companies have clearly indicated their intention to move away from traditional asset holdings, given that they have shown their intent to focus on asset classes other than government and corporate bonds.

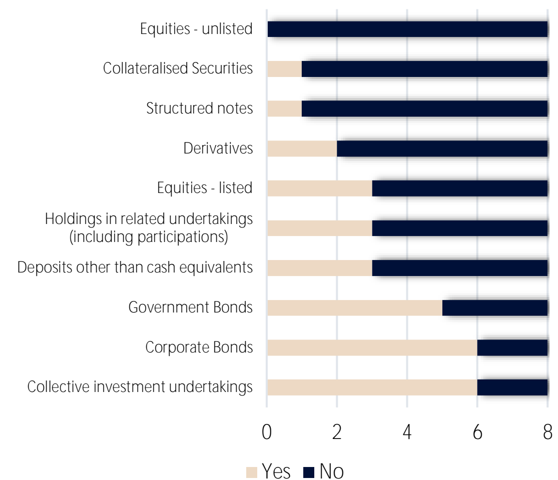

Figure 4 - In which asset categories do you plan to increase your exposure?

Source: Investment Behaviour Survey

[9] Derivatives exposure (as a percentage of total investments) amounted to 0.02% as at December 2018, depicting a decline from 0.03% as at December 2016.

[10] Participation means the ownership, direct or by way of control, of 20 % or more of the voting rights or capital of an undertaking (Reference is made to Article 13 of the Solvency II Directive).

[11] The alternative investments reported include private equity, securitised credit link obligations, mortgages backed securities and commodities.

Most of the undertakings agreed that changes in yields have indeed influenced their investment allocation. Additional factors include market conditions, asset liability management and the Solvency II framework. Of note, is that a small number of undertakings reported that changes in yield (since 2016) affected their investment asset allocation, yet this did not initiate a change in their investment return target. This possibly suggests that such undertakings may have shifted towards higher yielding assets in order to maintain the 2016 investment return target.

Developments in Investment Composition

Bond Investments

Traditionally, insurers have held substantial amounts of bonds on their balance sheet. In fact, bonds constitute the largest part of the EU insurance investment portfolio (EIOPA, 2019). A similar reliance on bond investments is found domestically, with only a small number of insurance undertakings mainly resorting to CIU or holdings in related undertakings, including participations.

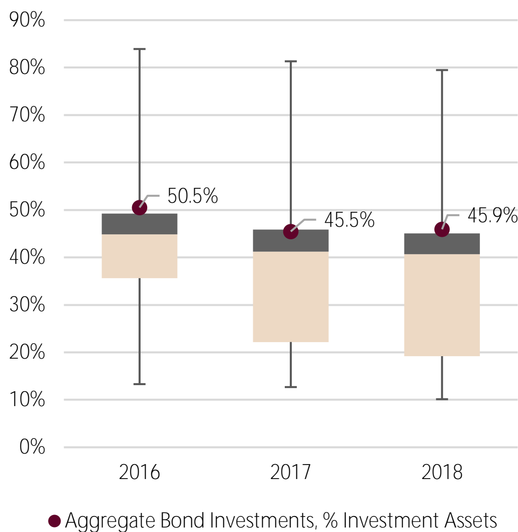

Figure 5 - Bonds, % total investments

Source: Solvency II QRTs

Although the prevalence of bonds varies across institutions, life companies' holdings are larger when compared to non-life companies. Overall, this figure has declined from 51% in 2016 to 46% in 2018, with all companies depicting a drop.

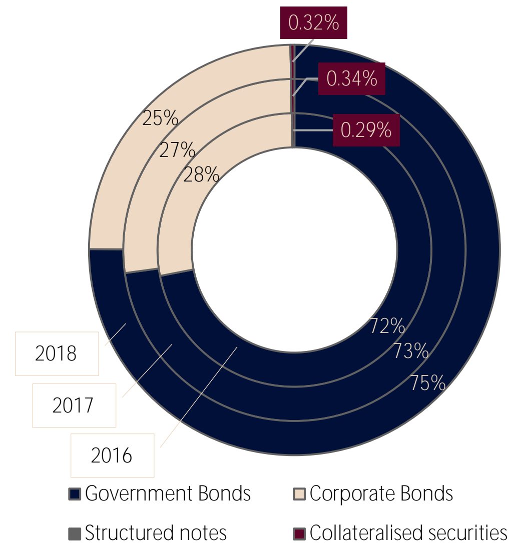

Figure 6 - Bond investments split

Source: Solvency II QRTs

Overall, insurance companies predominantly hold sovereign bonds (see Figure 6), on account that these are generally considered as lower-risk investments when compared to corporate bonds. Although during the period analysed the share of government bond holdings rose, a wide divergence in the dominance of such holdings between insurance companies is present, varying from as low as 5% to 82% of

total bond holdings[12]. Additionally, the majority of companies depicted an increase in the share of corporate bonds (to total bonds) between end 2016 and end 2018, with upward shifts varying from 2.1 to 16.9 percentage points[13], hinting that certain companies may be searching for yield through corporate bond investments; thereby assuming higher risk.

Solvency II regulatory regime tends to favour European sovereign holdings in domestic currency, considering them as risk-free. Simultaneously, Solvency II imposes capital requirements on the holdings of corporate bonds depending on the credit quality and duration amongst others[14]. This implies that several undertakings under review are willing to hold relatively higher capital in search for higher yield.

With respect to the remaining bond categories, as at end 2018, none of the domestically relevant institutions held investments in structured notes, while investments in collateralised securities were minimal, amounting to 0.15% of the aggregate investment portfolio.

Credit Quality of Bond Investments

The aggregate bond portfolio credit quality[15] has improved slightly over the period under review, depicting a decline in the share of low rated bonds[16] of about 2.4 percentage points[17].

Further analysis shows that improvements were attributable to a reduction in holdings of low credit quality sovereign investments of 20% (€18 million), as opposed to 2% (€4 million) for corporate bonds.

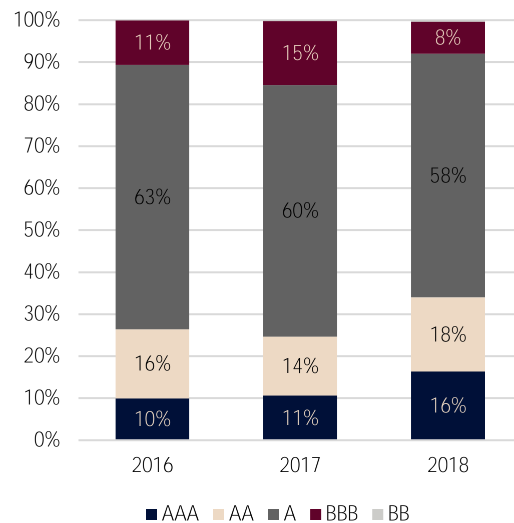

Figure 7 - Credit quality of government bond investments

Source: Solvency II QRTs

[12] The share of government bond investments varied between 1% and 51% of total investment assets as at December 2018.

[13] The largest percentage point rise in the share of corporate bonds, as a percentage to total investments amounted to 5.1 as at December 2018.

[14] In certain instances, such as low rated corporate bonds, steeper capital charges are demanded (See Article 180 of Commission Delegated Regulation (EU) 2015/35).

[15] The credit quality of investment assets was determined by making use of the *CQS* (as defined by Article 109a(1) of the Solvency II Directive 2009/138/EC) and the *External Rating* reported in Solvency II template S.06.02. A credit rating of AAA refers to investments assigned a credit rating between AAA- and AAA+, a credit rating of AA refers to investments assigned a credit rating between AA- and AA+, a credit rating of A refers to investments assigned a credit rating between A- and A+, a credit rating of BBB refers to assets assigned a credit rating between BBB- and BBB+, a credit rating of BB refers to assets assigned a credit rating between BB- and BB+, a credit rating of B refers to assets assigned a credit rating between B- and B+ whereas a credit rating of CCC refers to assets assigned a credit rating lower than CCC.

[16] Low rated bonds are defined as bonds assigned a credit rating of BBB or lower (including those not rated).

[17] The share of low rated bonds amounted to 20% of total bond investments as at December 2018 (or 9.4% of investment assets).

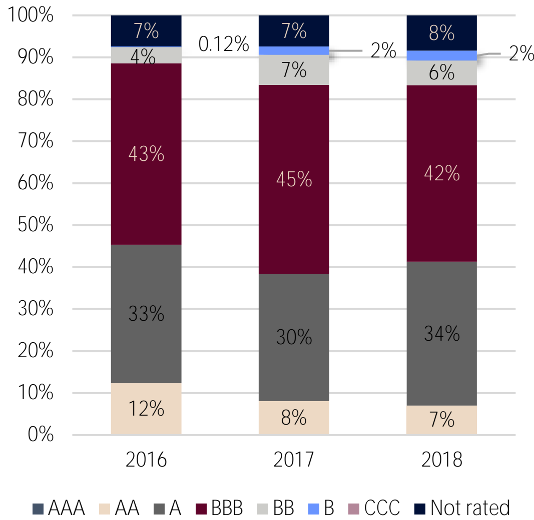

Figure 8 - Credit quality of corporate bond investments

Source: Solvency II QRTs

Indeed, whereas overall credit quality of the government bond portfolio improved, the share of low credit quality corporate bonds increased from 55% to 59% on aggregate during the period under review (see Figures 7 and 8).

The overall improvement in the credit quality of the bond portfolio was not experienced by all insurers. Furthermore, the search for yield behaviour has been more evident for certain domestic insurers when compared to other euro area counterparts.[18] This is reflected in the pace that such insurers have shifted towards lower quality (BBB rated) and high yield bonds[19].

Insurers' risk perception of credit quality – A qualitative analysis based on the investment behaviour survey responses.

Insurance undertakings were required to assign their risk perception of the various CQSs, given a choice between *Low, Medium-Low, Medium-High and High*. This is shown graphically in Figure 9, where the bubble size represents the number of respondents[20]. Considering the 45-degree line, as the risk tolerance line, anything above it can be deemed as high-risk tolerance while that below can be considered as low risk tolerance.

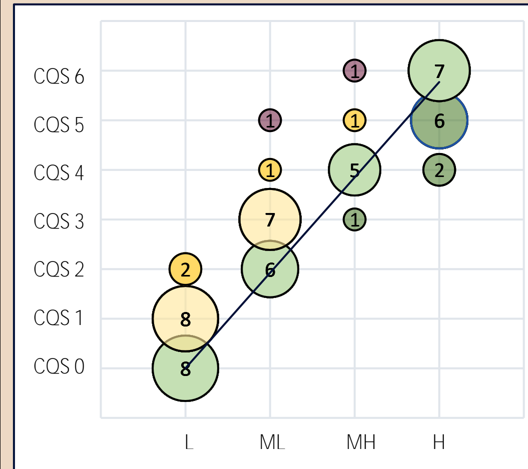

Figure 9 - Risk perception of undertakings

Source: Investment Behaviour Survey

Most responses fall either on the line or below, which indicates prudence in their risk tolerance to credit quality. Of note is one respondent which considers CQS 4 (BB) and CQS 5 (B) rated debt as medium low risk and CQS 6 (CCC and lower) rated debt as medium high risk. However, if one examines the link between risk perception and the actual amount invested in the CQSs mentioned above, these correspond to merely 5%, 3% and 0% of total bond investments respectively.

Additionally, it is noted that two undertakings consider bonds of CQS 2 (A) to be of low risk, putting such assets in the same category of risk perception as CQS 0 (AAA) and CQS 1 (AA). Such undertakings hold a relatively high share of CQS 2 (A) rated bonds, amounting to 9% and 23% of their respective investment assets[21].

[18] Euro area insurers have increased their share of BBB rated and high yield bonds from 35% to 41%; equivalent to a 6 percentage points increase over a 5 year period (ECB, 2019).

[19] Three companies depicted an increase in the absolute value of low rated bonds, whereas three other companies depicted a stronger decline in high rated bonds, rather than low rated causing an increase in the share of low rated bonds.

[20] The number of respondents is also specified inside the bubble.

[21] Such CQS 2 (A) rated bonds amounted to 90% and 61% of the respective insurers' total bond investments.

Home Bias in Bond Investments

Insurance undertakings considered to be domestically relevant have a general tendency to have material investments with counterparties held in Malta. However, during the period analysed, home bias of the bond portfolio has dropped from 46% in 2016 to 39% in 2018. Analysing home bias of the individual bond components it is noted that home bias is more evident in the case of government bonds rather than corporate bonds, although this is on a declining trend (see Figures 10 and 11).

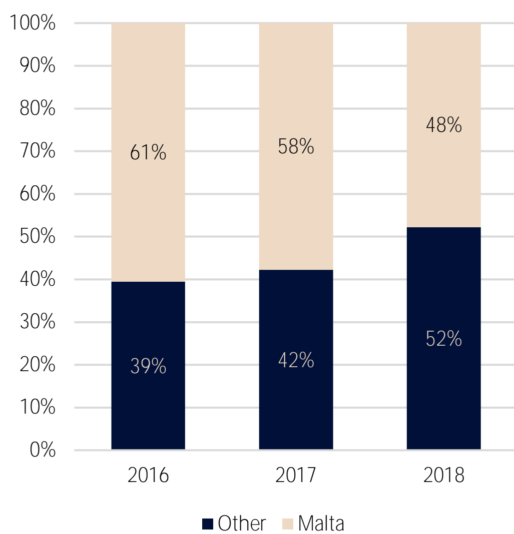

Figure 10 - Home bias in government bond investments

Source: Solvency II QRTs

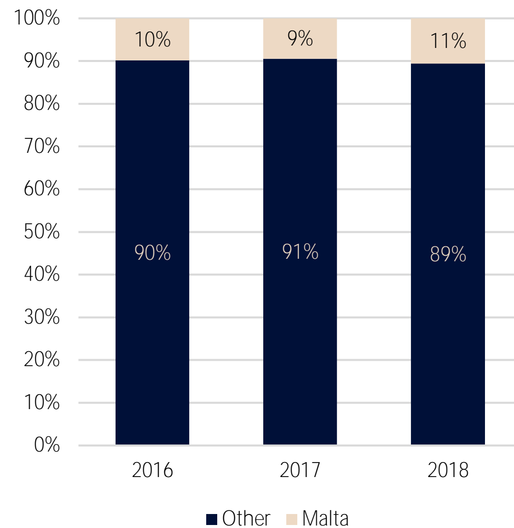

Figure 11 - Home bias in corporate bond investments

Source: Solvency II QRTs

On an individual level, between 2016 and 2018 the majority of companies depicted a decline in the share of Maltese government bonds (to total government bonds), reflecting in some instances a search for higher yielding returns. Conversely, although insurance companies predominantly rely on foreign corporate bonds, larger holdings of Maltese corporate bonds were held by certain undertakings, with the exposure of two insurers above 50% of total corporate bonds[22].

Bond Investments Issued by Advanced vs Emerging and Developing Economies[23]

Exposure to emerging and developing markets has remained constant and contained on aggregate for both government and corporate bond investments, reaching 2% and 4% of the respective bond categories as at December 2018[24]. Once more, some differences are present on an individual basis. In the case of

[22] Maltese corporate bonds considered as a percentage of investment assets ranged between 0.2% and 13.4% as at December 2018.

[23] The list of advanced and emerging and developing economies is based on IMF world economic outlook (April 2019).

[24] According to the EIOPA June 2019 Financial Stability Report, European insurers' exposure to government bonds and corporate bonds stemming from emerging markets stood at 1.6% and 5% as at December 2018 (Look-through approach applied; includes assets held for UL-IL business).

government bonds, the increase in the share of emerging market and developing countries bond holdings (to total government bonds) range between zero and 20 percentage points[25].

With respect to corporate bonds, the shift is less pronounced, with the largest change being of five percentage points over a two year period.[26] This implies that although, on aggregate, insurers do not appear to be searching for yield through emerging and developing market bond investments, this is indeed the case for certain undertakings.

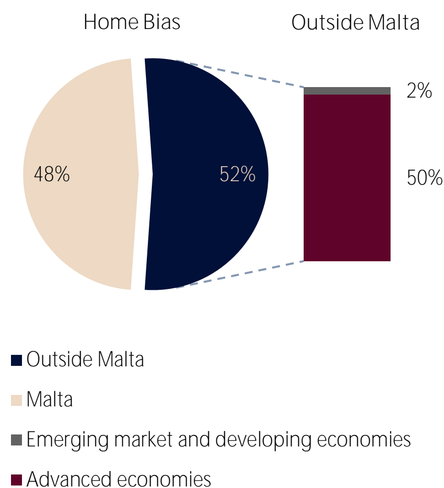

Figure 12 - Government bond investments split by residence of issuer

Source: Solvency II QRTs

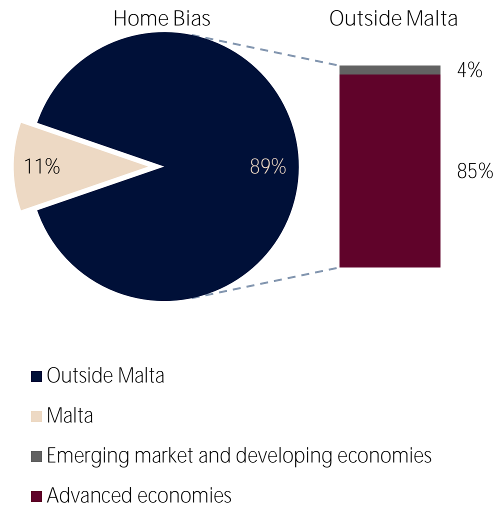

Figure 13 - Corporate bond investments split by residence of issuer

Source: Solvency II QRTs

Maturity and Duration of Bond Investments[27]

Total aggregate holdings of government and corporate bonds with a residual short-term maturity[28] rose between 2016 and 2018 (see Figures 14 and 15). This is considered to be positive as a search for yield behaviour is often associated with longer maturities. However, further analysis on a micro level shows that this trend only took place at best for half of the domestically relevant undertakings. The weighted average[29] years to maturity of both the government and corporate bond portfolios remained relatively stable on aggregate, standing at around 8.3 and 5.7 respectively as at end 2018, depicting marginal declines during the past two years.

[25] Government bonds issued by emerging market and developing economies, as a percentage of investment assets, varied between 0% and 4.6% as at end 2018.

[26] Corporate bonds issued by emerging market and developing economies, as a percentage of investment assets, varied between 0% and 7% as at end 2018.

[27] Perpetual bonds were eliminated from the maturity analysis. Such bonds amounted to 0.29% of total bond investments as at end 2018.

[28] Residual short-term maturity refers to investments with years to maturity between zero and five (inclusive).

[29] Throughout this document, the 'weight' is based on Solvency II values.

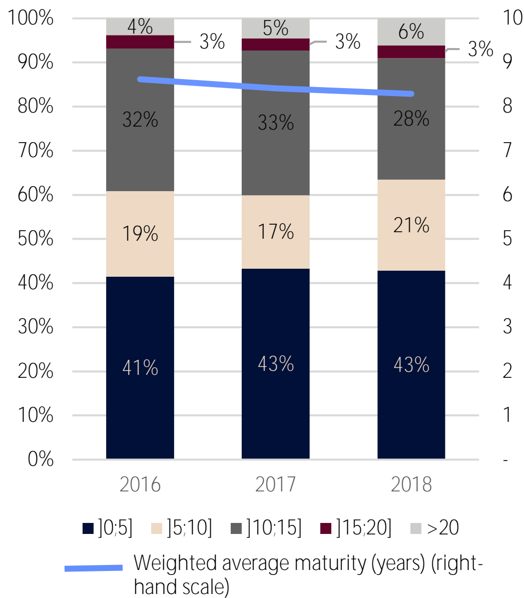

Figure 14 - Years to maturity of the government bond portfolio

Source: Solvency II QRTs; Reuters Eikon

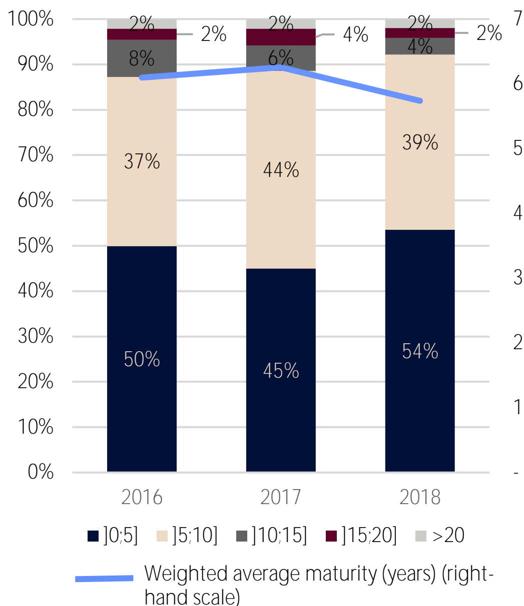

Figure 15 - Years to maturity of the corporate bond portfolio

Source: Solvency II QRTs; Reuters Eikon

Going forward, most insurance undertakings do not intend to increase the bond portfolio maturity. Only two undertakings showed their intention to do so, in order to generate yields or to continue matching the projected repayment of liabilities.

With respect to duration, three undertakings have increased their weighted average modified duration of the government bond portfolio. Such changes were justified by the need to generate positive yields and portfolio rebalancing. Additionally, three undertakings have increased their weighted average modified duration of the corporate bond portfolio; however, such increases were marginal.

Equity (including holdings in related undertakings, including participations)

Equity investments[30] are on an increasing trend. Common equity continued to represent the majority of equity holdings, although the share of equity of real estate related corporations has increased.

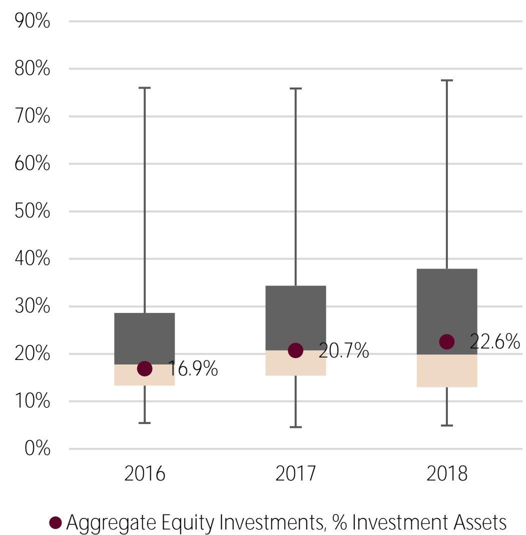

Figure 16 - Equity investments (including holdings in related undertakings, including participations), % total investments

Source: Solvency II QRTs

[30] Equity investments include holdings in related undertakings, including participations.

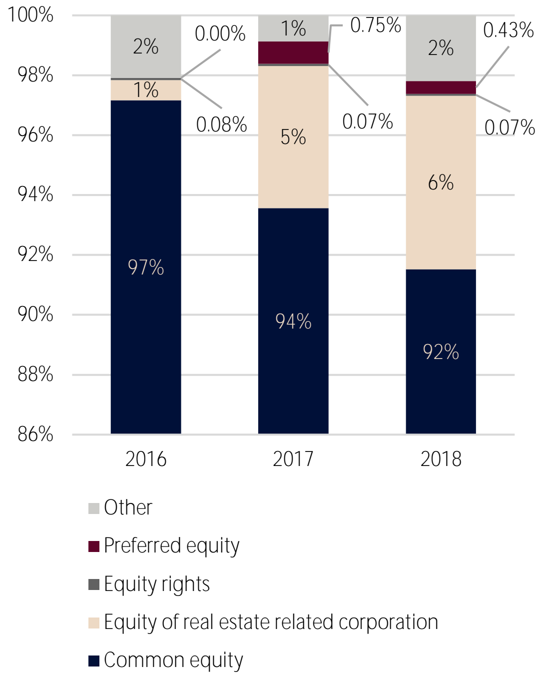

Figure 17 - Equity investments split (including holdings in related undertakings, including participations)

Source: Solvency II QRTs

An individual company analysis reveals that the utilisation of equity within the investment portfolio varies between insurers from around 5% to 78%. However, during the period analysed, half of the companies depicted an increase in the share of equity investments, ranging from 1.6 to 26.4 percentage points. The remaining companies reported declines between -3.5 and -0.3 percentage points.

On a positive note, most equities are listed, albeit a rise in the share of unlisted equities has been recorded between December 2016 and December 2018 [31]. The increase in unlisted equity is stemming from one company, whose share of unlisted equity increased from 0.9% of the company's total investments to 3.2% over the period under review, implying a shift towards non-traditional investments.

Home Bias and Advanced vs Emerging Economy Equity Investments

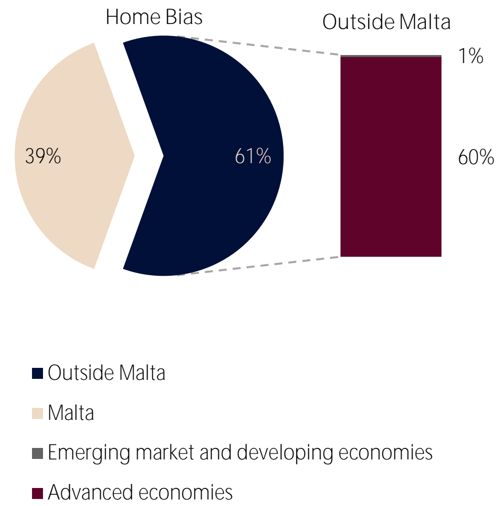

Figure 18 - Home bias; advanced/emerging economies equity investments

Source: Solvency II QRTs

Overall, concentration in domestic equity investments is on a declining trend, from 58% in 2016 to 39% in 2018. In particular, only three companies registered an increase in the share of equity issued by Malta. Exposure to equity issued by emerging and developing market economies have remained contained overall, although increasing from 0.02% of total equity to 0.76% as at end 2018. Only one company increased its exposure to this asset type under the period under review, reaching 1% of the company's total equity investments.

Collective Investment Undertakings

Investments in CIU reached 17% of total investment assets as at end 2018, down from 18% two years earlier, although figures ranged widely between insurance undertakings from 0.3% to 55%. From a financial stability perspective, such levels of concentration in CIU could potentially pose liquidity risk due to the liquidity of underlying assets and a fund's

[31] On aggregate, the share of unlisted equities (to total equities, excluding holdings in related undertakings and participations) increased from 0.3% to 0.5% between end 2016 and end 2018.

redemption policy. Additionally, according to EIOPA (2018), such concentration may render markets more vulnerable to transmission of shocks in case of stress due to potential common investment behaviour. On this front, the domestic situation does not point towards significant signs of concern given that common exposures between domestically relevant undertakings is not excessive.

A shift from equity funds to debt funds, asset allocation funds[32] and (to a lesser extent) other funds is noted during the period under review.

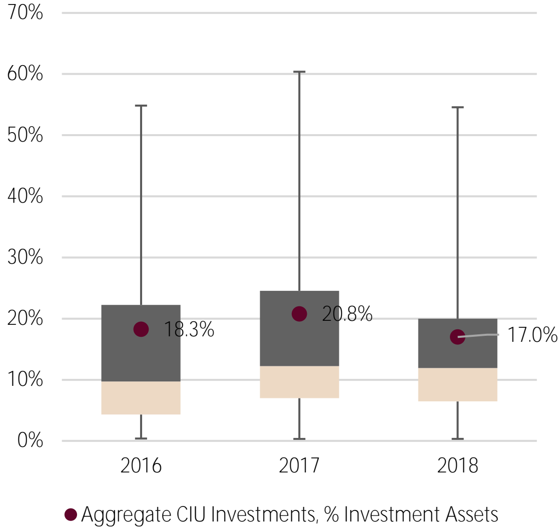

Figure 19 - Investments in CIU, % total investments

Source: Solvency II QRTs

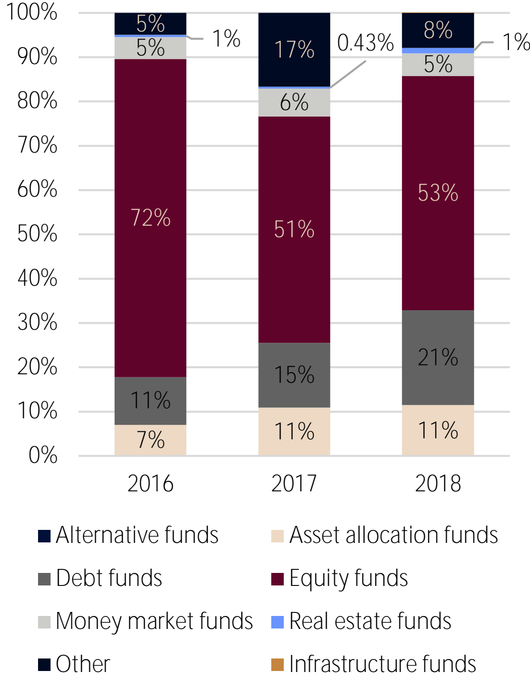

Figure 20 - Investments in CIU split

Source: Solvency II QRTs

Home Bias and Advanced vs Emerging Economy Investments in CIU

Contrary to bonds and equity, home bias is not high on aggregate with respect to investments in CIU and has depicted a slight decline since 2016. The share of CIU issued by Malta ranged between 0% and 100%.

[32] Asset allocation funds refer to CIU which invest its assets pursuing a specific asset allocation objective, e.g. primarily investing in the securities of companies in countries with nascent stock markets or small economies, specific sectors or group of sectors, specific countries or other specific investment objective.

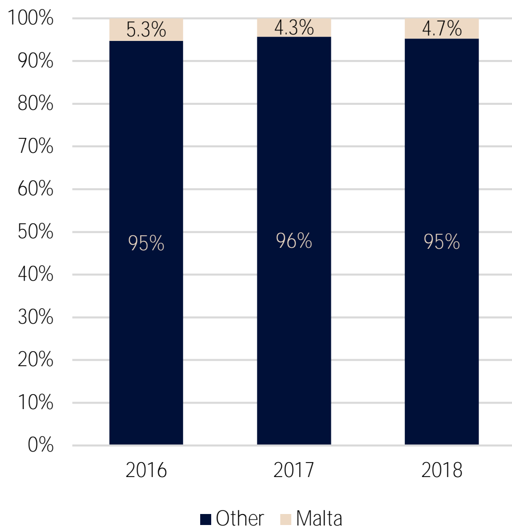

Figure 21 - Home bias in investments in CIU

Source: Solvency II QRTs

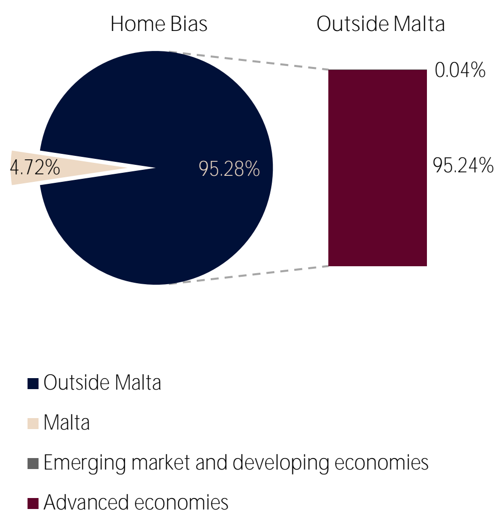

Figure 22 - Home bias: advanced/emerging economies CIU investments

Source: Solvency II QRTs

Almost 100% of CIU investments are stemming from advanced economies. As at end 2018, only one company held investments in CIU issued by emerging and developing economies, compared to two, two years earlier. This amounted to 4.9% of total investments in CIU of the company (or 0.4% of the company's investment assets), marginally declining from 2016. Hence, on this front, no search for yield behaviour is noted.

Deposits Other Than Cash Equivalents

Deposits other than cash equivalents reached 9% of total investment assets as at end 2018, remaining relatively stable during the past years. This asset class is composed of short-term deposits (less than or equal to one year)[33] as well as deposits with a term longer than one year[34]. However, during the period under review, a shift in the share of deposits with a longer term to maturity has been recorded. Specifically, deposits with a term to maturity higher than one year, rose in percentage terms from 4% to 38%, possibly on account of higher interest income opportunities. However, on the downside, a lower level of liquidity is associated with such products, given their restrained ability to be utilised in specific circumstances. Of note is that the vast majority of deposits are held with core domestic banks.

The utilisation of such deposits differs among companies, ranging from 0% to 12% (of total investment assets). One company showed a significant increase in the share of longer-term deposits (as a percentage of deposits other than cash equivalents) of 36 percentage points, whereas another company removed short-term deposits previously held. The remaining undertakings either did not hold any deposits other than cash equivalents or held short term deposits.

[33] Deposits other than transferable deposits, with remaining maturity inferior or equal to one year, that cannot be used to make payments at any time and that are not exchangeable for currency or transferable deposits without any kind of significant restriction or penalty.

[34] Deposits other than transferable deposits, with remaining maturity superior to one year, that cannot be used to make payments at any time and that are not exchangeable for currency or transferable deposits without any kind of significant restriction or penalty.

Investment Property

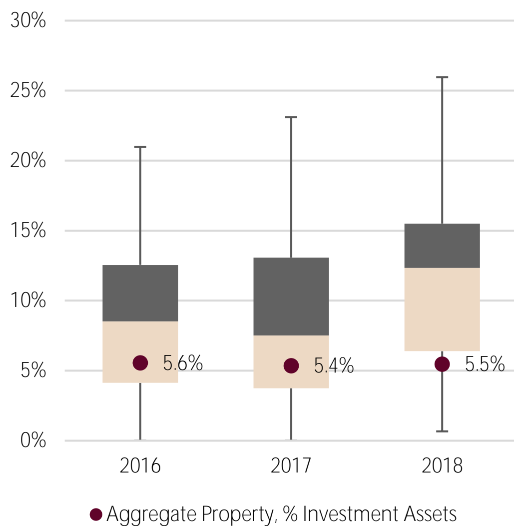

Figure 23 - Investment property, % total investments

Source: Solvency II QRTs

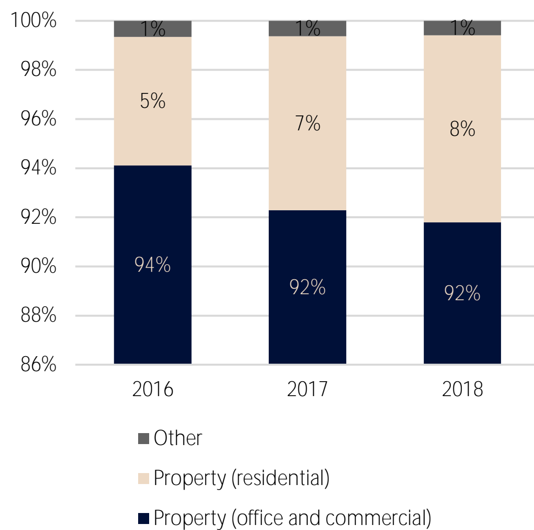

Figure 24 - Investment property split

Source: Solvency II QRTs

The domestic insurance sector does not generally play an important role in the domestic property market through direct investment in this sector. In fact, the aggregate life business holdings of such investments is minimal [35], remaining relatively stable during the period analysed. However, within the insurance sector, individual company exposure to investment property may render it vulnerable to imbalances in the property market. Non-life sector investment in property is more pronounced in relation to their investment portfolio ranging between 7% and 26%.

Overall, no major increase in such involvement in the property market has taken place, with rises in property holdings mainly attributed to the appreciation in property value. Nonetheless, two insurance undertakings have purchased new property in 2017. In one case, more purchases took place in 2018, while another insurance company entered this market for the first time in 2018.

A search for yield through property investments is not generally evident overall, although this cannot be excluded in the case of a few undertakings. No shift in property investments situated abroad was observed. Additionally, no substantial changes in the type of property held was noted, apart from one undertaking.

Derivatives

Insurance undertakings do not make extensive use of derivatives. In fact, investment in derivatives is minimal, making up just 0.02% of investment assets as at December 2018; a decline of 0.01 percentage points when compared to two years earlier.

Life Insurance Products

Unit-linked and Index-linked Products

In UL-IL contracts, market risk is transferred from the insurance undertaking to the policy holder. As observed by EIOPA (2017) (2019), aside from lowering guaranteed rates, European insurance groups have also been adapting to the challenging economic environment by increasing UL-IL contracts. In such products policyholders have some discretion over the asset allocation. The risk appetite of

[35] Investment property (as a percentage of total investments) of the life sector ranged between 1% and 21%.

policyholders may differ from that of insurance undertakings, implying differing asset allocation than that selected by insurers for business other than UL-IL purposes.

In contrast to European insurers[36], the volume of assets held for UL-IL contracts by Maltese insurers has dropped significantly by over 60% in the last two years. Out of the five companies licensed to carry life insurance business, only one does not engage in UL-IL business. A company by company analysis reveals that the percentage of assets held for UL-IL contracts to total assets ranges from 4% to 50% as at end 2018, with only one company showing growth in this line of business.

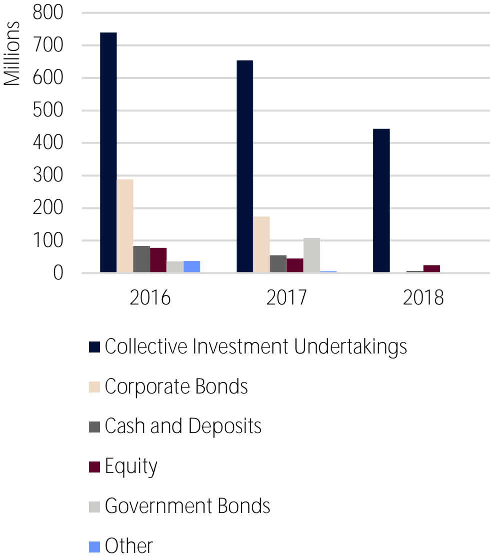

Figure 25 - Assets held for UL-IL contracts split[37]

Source: Solvency II QRTs

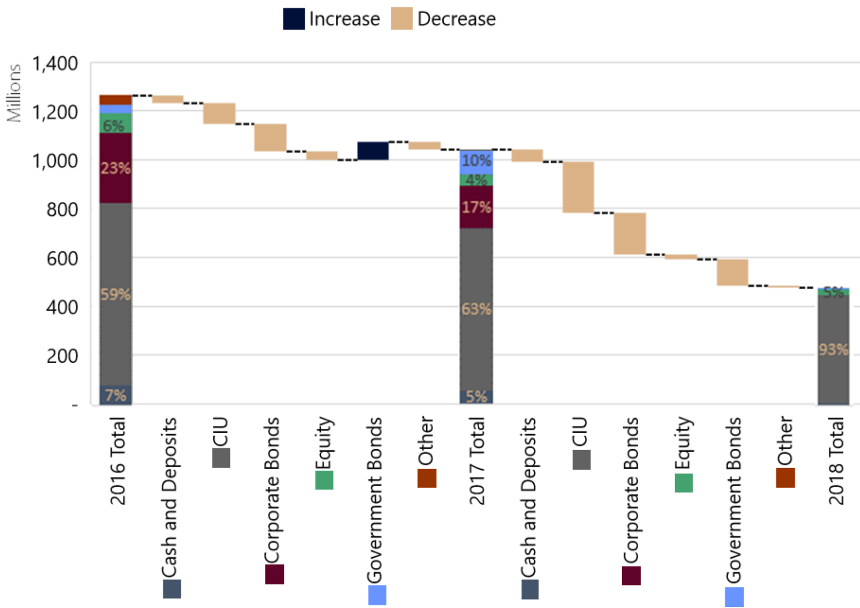

Figure 26 - Delineation of changes in investment assets held for UL-IL contracts

Source: Solvency II QRTs

[36] European insurers increased the volume of assets held for UL-IL contracts by 7%. Data source: EIOPA Statistics (solo): *https://www.eiopa.europa.eu/tools-and-data/insurance-statistics_en*

[37] The category "other" includes investments in collateralised securities and structured notes.

The majority of assets held for UL-IL purposes are concentrated in CIU (see Figure 26). This has increased during the period under review as the share increased from 59% in 2016 to 93% in 2018. As at 2018 this mainly compromised of equity funds (43%), debt funds (26%) and asset allocation funds (21%). Conversely, the share of investments in corporate bonds declined by 22 percentage points between 2016 and 2018. Minimal shares are also held in equity, cash equivalents and government bonds.

Guaranteed Products

Life insurance companies are negatively affected by the low interest rates in an environment where policyholders are guaranteed unsustainable returns. Specifically, losses are incurred when investment yields fall below guarantees. In addition, the guaranteed return acts as a minimum investment performance which the company must pursue. (Insurance Europe, Oliver Wyman, 2013)

Locally, undertakings do not offer products with a guaranteed rate of return and, looking forward, such companies did not express any intention to start selling such products. The number of companies reporting that they face challenges due to capital and/or interest rate guaranteed products was limited to two.

Conclusion

The numerous ECB programmes meant to stimulate economic growth and foster stability have caused government bond yields to drop across several members of the euro area and are expected to remain at very low levels for a prolonged period of time. Insurers are generally able to withstand fairly long periods of low interest rates. However, repercussions could take place in terms of profitability and solvency pressures.

Owing to falling yields, insurers across the globe have been encouraged to explore higher return investments which, however, are generally associated with heightened risk. Results obtained from a survey carried out with domestically relevant insurers show that that most respondents have acknowledged that changes in yields had an impact on their investment allocation. This was confirmed by the data submitted to the Authority which have depicted several shifts in the investment portfolios of the undertakings. Specifically, the investment portfolio of the domestically relevant insurance sector has experienced a shift from bonds to equity, coupled with an increase in alternative investments. A substantial increase in the share of longer-term deposits is also evident.

On an individual basis, insurance companies have experienced clear changes in investment behaviour associated with a search for higher returns. The majority of the licence holders have registered an increase in the share of corporate bonds, as well as an increase in investments to bonds issued by emerging and developing markets. The search for yield behaviour is also evident from the pace that certain insurers have shifted towards lower quality (BBB rated) and higher yielding bonds, which is faster when compared to other euro area counterparts, in addition to an increase in longer maturity investments.

The shift towards UL-IL contracts recorded by European insurers was not recorded domestically. Conversely, in Malta the volume of assets held by life insurance undertakings for UL-IL contracts has dropped in the period under review, with only one company depicting an increase in such assets.

References

ECB., (2015). *Financial Stability Review.* Euro area insurers and the low interest rate environment. [online] pp.134-146. Available at: https://www.ecb.europa.eu/pub/pdf/fsr/financialstabilityreview201511.en.pdf [Accessed 9 Oct. 2019].

ECB., (2019). *Financial Stability Review.* [online] Available at: https://www.ecb.europa.eu/pub/pdf/fsr/ecb.fsr201905~266e856634.en.pdf?613f7cd049b8715ed75ba22c21fab16f [Accessed 6 Aug. 2019].

EIOPA., (2017). *Investment behaviour report.* [online] Available at: https://eiopa.europa.eu/Publications/Reports/Investment_behaviour_report.pdf [Accessed 9 Aug. 2019].

EIOPA., (2018). *Financial Stability Report.* [online] Available at: https://eiopa.europa.eu/Publications/Reports/Financial_Stability_Report_Spring2018.pdf [Accessed 9 Aug. 2019].

EIOPA., (2019). *Financial Stability Report.* [online] Available at: https://eiopa.europa.eu/Publications/Reports/EIOPA_FSR_June2019.pdf [Accessed 21 Oct. 2019].

Insurance Europe, Oliver Wyman (2013). *Funding the future Insurers' role as institutional investors.* [online] Brussels. Available at: https://www.insuranceeurope.eu/sites/default/files/attachments/Funding%20the%20future.pdf [Accessed 9 Oct. 2019].

OECD., Gründl, H., Gal, J. and Dong, M. (2016). *The evolution of insurer portfolio investment strategies for long-term investing.* [online] OECD Journal: Financial Market Trends. Available at: http://dx.doi.org/10.1787/fmt-2016-5jln3rh7qf46 [Accessed 9 Aug. 2019].

Schmeiser, H. and Wagner, J. (2012). The Impact of Introducing Insurance Guaranty Schemes on Pricing and Capital Structure. *Journal of Risk and Insurance*, 80(2), pp.273-308.

Annex I

Data Source

The data used in this report excludes assets held for UL-IL contracts (unless stated otherwise) and is based on the following data sources:

- Solvency II Quantitative Reporting Template S.02.01 - Balance Sheet
- Solvency II Quantitative Reporting Template S.06.02 - List of Assets
- Comprehensive survey distributed amongst insurance undertakings[38]
- Thomson Reuters Eikon
- EIOPA Insurance statistics

Emerging and developing countries are based on the IMF world economic outlook database (April 2019).

	Life Insurance Undertakings	Non-Life Insurance Undertakings	Composite Insurance Undertakings
Domestically Relevant Insurance Companies	GlobalCapital Life Insurance Limited HSBC Life Assurance (Malta) Limited MAPFRE MSV Life plc	Atlas Insurance PCC Limited Elmo Insurance Limited GasanMamo Insurance Limited	Citadel Insurance plc MAPFRE Middlesea plc

[38] The questions extracted from the survey which were used for the purpose of this report can be found in Annex II.

Annex II

Survey

In addition to the quantitative information obtained from Solvency II reporting templates and Reuters Eikon, the questions listed below were completed by the insurance undertakings under review and were used for the completion of this report.

1. Have you increased your investment allocation towards more illiquid investment assets?
    a. List internal thresholds used to define illiquid investment assets.

2. Do you have an internal policy limit for the percentage of illiquid investment assets held in the investment portfolio?
    a. If yes, specify.

3. Has the modified duration of the government bond portfolio increased? (Modified duration refers to the weighted average modified duration, where the weight is based on the Solvency II values of government bonds.)
    a. If yes, state the reason for the increase.
    b. If yes, complete the table below:

	December 2016	December 2017	December 2018
Weighted average modified duration			

4. Has the modified duration of the corporate bond portfolio increased? (Modified duration refers to the weighted average modified duration, where the weight is based on the Solvency II values of corporate bonds.)
    a. If yes, state the reason for the increase.
    b. If yes, complete the table below:

	December 2016	December 2017	December 2018
Weighted average modified duration			

5. Do you plan to increase/extend the maturity of your government bond portfolio? (Maturity refers to the weighted average maturity, where the weight is based on the Solvency II values of government bonds.)
    a. If yes, state the reason for the planned increase.
    b. If yes, specify an approximate of the planned weighted average maturity.

6. Do you plan to increase/extend the maturity of the corporate bond portfolio? (Maturity refers to the weighted average maturity, where the weight is based on the Solvency II values of corporate bonds.)
    a. If yes, state the reason for the planned increase.
    b. If yes, specify an approximate of the planned weighted average maturity.

7. Kindly provide the weighted average yield to maturity of the following investment asset categories, where the weight is based on Solvency II values of the respective asset categories:

Asset Categories	December 2016 (%)	December 2017 (%)	December 2018 (%)
Government Bonds			
Corporate Bonds			

8. Assign the company's risk perception of the following credit quality steps.

Credit Quality Step	Low	Medium Low	Medium High	High
Credit Quality step 0				
Credit Quality step 1				
Credit Quality step 2				
Credit Quality step 3				
Credit Quality step 4				
Credit Quality step 5				
Credit Quality step 6				

9. Have you increased your investment allocation towards alternative investments? *Alternative investments include; real assets (including natural resources, commodities, infrastructure and intellectual property), hedge funds, private equity and green bonds.*
    a. If yes, complete the table below:

Alternative investments	Solvency II amount in Euro (December 2016)	Solvency II amount in Euro (December 2017)	Solvency II amount in Euro (December 2018)
Natural resources			
Commodities			
Infrastructure			
Intellectual property			
Hedge funds			
Private equity			
Green Bonds			
Others: (please specify)			

10. Do you plan to reduce or hedge your exposure against a specific investment asset, issuer or currency?
    a. If yes, specify.

11. In which asset categories do you plan to increase your exposure?

	Yes	No
Property		
Holdings in related undertakings (including participations)		
Equities - listed		
Equities - unlisted		
Government Bonds		
Corporate Bonds		
Collateralised Securities		
Structured notes		
Collective investment undertakings		
Derivatives		
Deposits other than cash equivalents		
Other investments (please specify)		

12. Did you change your investment return targets since 2016?
    a. If yes, complete the table below and specify the reason behind the change.

	December 2016	December 2017	December 2018
Investment Return Target (%)			

13. Have changes in yields effected your investment allocation?
    a. Are changes in yields an important factor for your investment allocation?
    b. Specify any additional factors that forced your company to adjust its investment allocation (if applicable) (e.g. introduction of risk-based Solvency II framework)

14. How is asset liability management considered in the company's strategic asset allocation?
    a. Have you observed any changes in the duration gap between assets and liabilities since 2016?
        i. If yes, specify

15. Are you currently selling products with a guaranteed rate of return?
    a. If not, do you plan to start selling such products in the future?

16. Are you facing any challenges due to capital and/or interest rate guaranteed products?
    a. If yes, specify

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

Malta Financial Services Authority

Triq L-Imdina, Zone 1

Central Business District, Birkirkara, CBD 1010, Malta

communications@mfsa.mt

www.mfsa.mt