

MILLIMAN REPORT

Shareholder Value Reporting in Europe – Solvency II Based Metrics

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Prepared by:

[Sam Burgess](#)

[Stuart Reynolds](#), FIA

[Lyndsay Wrobel](#), FIA



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1. Executive summary

INTRODUCTION

In recent years there has been a shift to companies publicly disclosing supplementary reporting metrics related to Solvency II. Compared with disclosing more traditional embedded value metrics, under a Solvency II Own Funds based metric, much (if not all) of the 'Value in force' or 'VIF' in the regulatory reserves/technical provisions is already accounted for in the 'Net Asset Value' or Solvency II Own Funds due to the use of best estimate assumptions in the value of best estimate liabilities (**BEL**).

In this paper we provide a summary of the Solvency II based metrics that a sample of 21 companies disclosed as at year-end 2020 and consider whether and how the approaches adopted when determining these metrics have changed since year-end 2019. We note that 2020 was an atypical year with the emergence of the global COVID-19 pandemic, and therefore we consider how firms in our sample have been impacted by this pandemic in relation to their supplementary reporting metrics, as well as more generally how their level of Solvency II Own Funds and solvency positions have been affected. This includes the more measureable impacts resulting from financial market movements but also potentially less quantifiable impacts such as new business growth, claims patterns and policyholder behaviour. We also briefly consider solvency positions at the half-year 2021 and whether any improvements have been observed by firms in our sample, given a year has elapsed since the World Health Organization (**WHO**) declared COVID-19 a global pandemic¹.

In addition we consider the use of Solvency II Own Funds as a benchmark for the prices agreed in recent transactions. This builds on the analysis we developed in last year's publication 'Shareholder Value Reporting in Europe – Solvency II Based Metrics'² (**2020 Shareholder Value Report**), and now includes transactions which have been announced up to the end of September 2021.

Finally, we consider regulatory developments in relation to Solvency II: the European Insurance and Occupational Pensions Authority's (**EIOPA**'s) ongoing review of Solvency II (the **Solvency II 2020 Review**) as well as the UK Government's (in particular HM Treasury (**HMT**), and the Prudential Regulation Authority (**PRA**)) review of Solvency II given the UK's departure from the European Union in January 2020. We also briefly touch upon developments in International Financial Reporting Standards (**IFRS**) reporting and International Capital Standards (**ICS**), specifically in relation to reporting on value metrics and in transaction pricing.

IMPACT OF COVID-19 ON YEAR-END 2020 RESULTS

The COVID-19 pandemic has impacted many, if not all, industries across the globe, including the insurance industry. Specific to the insurance industry, the challenges thrown up by the pandemic have been widespread with a number of areas being impacted including:

- Claims patterns in relation to different product types
- Future demographic assumptions
- New business growth
- Changes in policyholder behaviour impacting existing business e.g. lapse experience
- Financial markets, as well as actions taken by central banks
- Management actions taken with respect to asset portfolios
- Other management actions taken (i.e. excluding those in relation to asset portfolios) in response to the changing business environment e.g. offering policyholders premium payment breaks and/or deferral options, suspension of staff salary increases
- Payment of dividends
- Operational challenges e.g. (re)insurers adapting to a different workplace model.

Further still there has been a variation in the impact between firms in different countries as a result of the prevalence of the virus itself but also the actions taken by national governments.

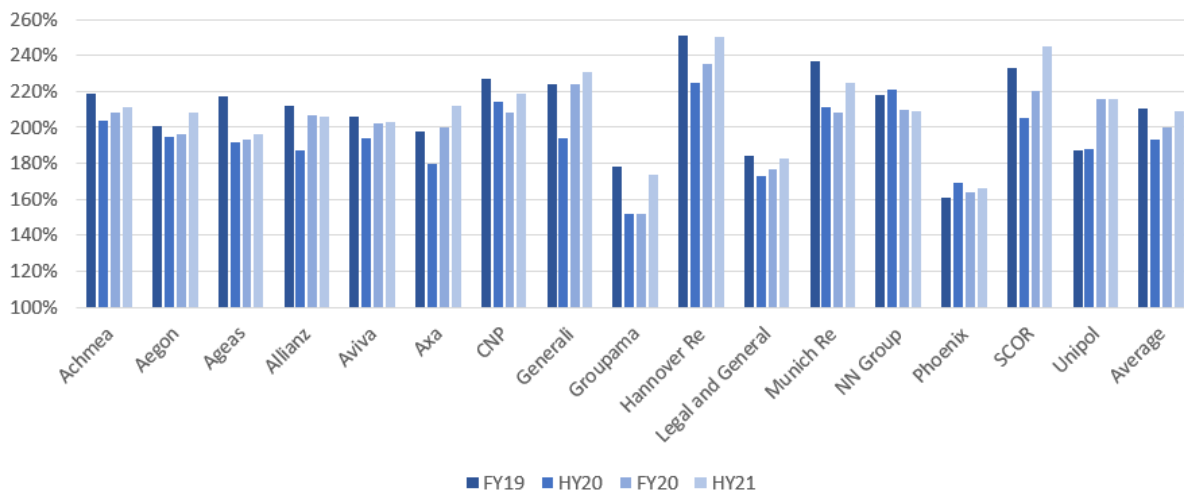
¹ The WHO declared COVID-19 a global pandemic on 11 March 2020.

² <https://www.milliman.com/en-GB/insight/shareholder-value-reporting-in-europe-solvency-ii-based-metrics-november-2020>

Despite these challenges, many firms in our sample have demonstrated resilient solvency positions over 2020. This outcome has been attributed in part to the Solvency II framework which, as a risk-based capital regime, looks to ensure that insurance companies better reflect the true risks to which they are exposed and hence enhance policyholder protection and hold appropriate capital buffers.

For those firms across our sample who have also disclosed half-year results at 2020 and 2021, we have set out the evolution of their solvency coverage over 2020 and into the first half of 2021 in Figure 1.

FIGURE 1: EVOLUTION OF REPORTED SOLVENCY COVERAGE RATIO (%) FROM YEAR-END 2019 TO HALF-YEAR 2021



Whilst there is variation at the company level, overall results show that firms saw a reduction in their Solvency Coverage Ratio in the first half of 2020, but that solvency levels had largely recovered at the end of 2020. Figure 1 also shows that the majority of firms have observed a further improvement in their Solvency Coverage Ratio in the first half of 2021 compared with year-end 2020.

It remains uncertain what the medium and long term impacts of the pandemic may be to European insurers. For example, will the restoration to a sense of normality bring with it a delayed impact (e.g. a spiked increase in lapses, a backlog of claims for sickness products, an increase in sickness claims due to the impact of long COVID), or can firms expect a return to pre-COVID-19 experience? We will see how European insurers' results have been affected in our analysis next year.

YEAR-END 2020 RESULTS

In the 2020 Shareholder Value Report, we observed that companies had started to disclose Solvency II earning metrics such as 'Solvency II Capital Generation'. However, 'Solvency II Capital Generation' remains a non-standard term, and as at year-end 2019 many of the companies in our sample disclosed similar metrics with various names and slightly varying definitions.

Having reviewed year-end 2020 disclosures, we have found there to be no material changes in the approach adopted by companies in our sample since year-end 2019. However, we have expanded our list of companies sampled to now include ASR Nederland.

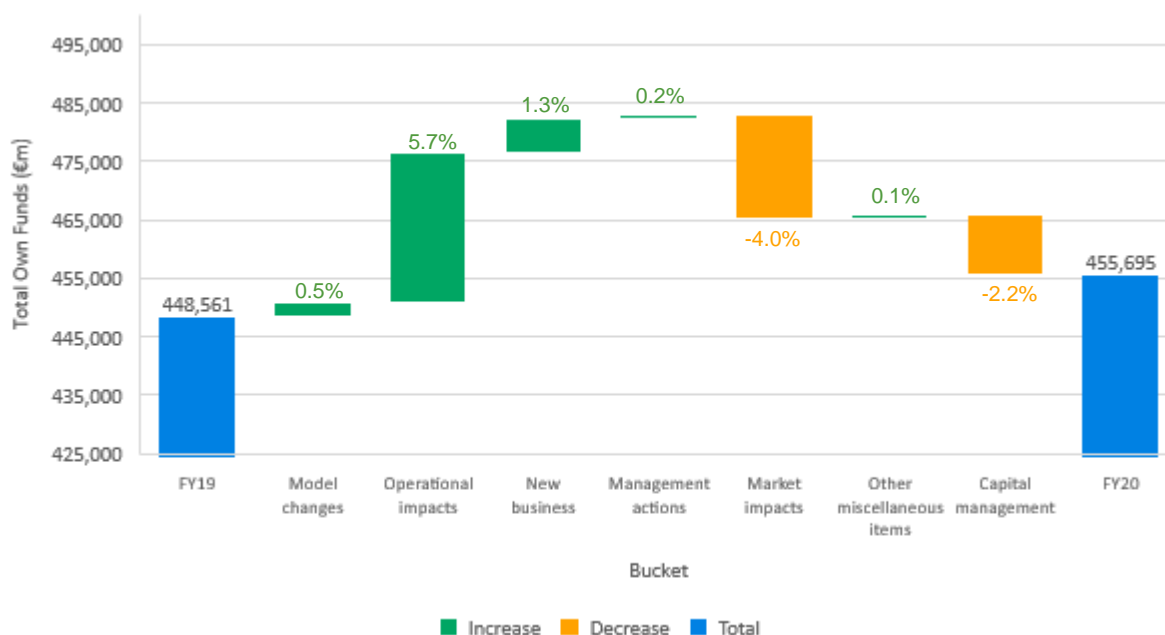
We note that, for our sample of companies, the level of disclosure at year-end 2020 remained greatest for companies headquartered in the Benelux region as well as a number of those headquartered in the UK.

In considering the value of the disclosed metric at year-end 2020 compared with 2019 for our sample companies, we note that whilst the metric remained positive as at year-end 2020, most firms observed a reduction in the amount of their capital generation metric compared with year-end 2019, i.e. the level of capital generated was reduced, typically observing a percentage change in the range of -15% to -25%.

As part of our analysis of firms' year-end 2020 disclosures, we also considered a breakdown of the movement in Solvency II Own Funds over 2020, on an aggregate basis. In Figure 2 we set out our analysis based on the following 'high-level buckets':

- Model changes
- Operational impacts
- New business
- Management actions
- Market impacts
- Other miscellaneous items
- Capital management (which includes payment of dividends).

FIGURE 2: AGGREGATE EVOLUTION OF OWN FUNDS OVER 2020 FOR COMPANIES IN OUR SAMPLE (EUR M)



Given the non-standardised nature of the disclosures around the movement in Own Funds across firms in our sample, a number of simplifications and judgements have been required to be made to arrive at the breakdown in Figure 2. However, in spite of these adjustments we think that the analysis provides a useful insight into the key drivers of firms' performance over 2020.

A key anticipated item of any movement in Own Funds over the year is 'Operational impacts'. Ideally 'Operational impacts' would provide some indication of the level of capital generation that arises 'naturally' from the existing business on the balance sheet at the start of the period. However, in the absence of the majority of firms in our sample disclosing this level of granularity when reporting the breakdown of movement in Own Funds, this category includes other items such as non-economic experience variances and non-economic assumption changes. Overall 'Operational impacts' contributed a 5.7% increase in Own Funds over 2020.

TRANSACTIONS

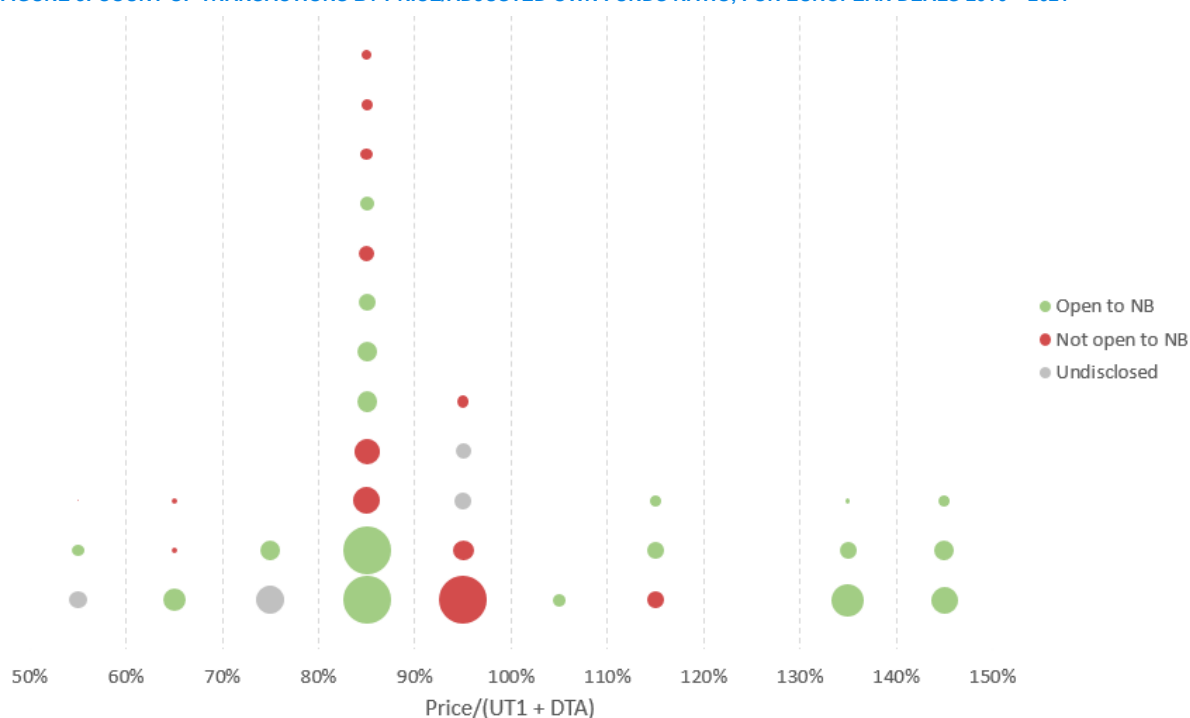
In recent years, it has become increasingly common for the ratio of 'Price/Solvency II Own Funds' to be quoted in relation to transactions involving the sale of insurance companies or blocks of insurance business within Europe.

As noted in the 2020 Shareholder Value Report, the use of unadjusted Solvency II Own Funds as a benchmark for transaction prices may not be appropriate given the inclusion of items such as subordinated liabilities. Therefore, a simple alternative metric would be the ratio of price to unrestricted Tier 1 capital (**UT1**) plus the net deferred tax asset (**DTA**) (i.e. price / (UT1 + DTA)). This amount can be readily calculated using publicly available information such as Solvency and Financial Condition Reports (**SFCRs**).

Figure 3 shows the ratios (based on the adjustments detailed above) for a number of recent transactions grouped into 10% 'ranges'³. Furthermore:

- The colour of the dot indicates if the target block of business was open (green), closed (red) to new business, or its status in respect of being open to new business has not been disclosed (grey)
- The size of the dot indicates the size of the transactions as measured by the amount of the adjusted Solvency II Own Funds (either UT1 + DTA or the implied value calculated from the disclosed ratio).

FIGURE 3: COUNT OF TRANSACTIONS BY PRICE/ADJUSTED OWN FUNDS RATIO, FOR EUROPEAN DEALS 2016 – 2021



Based on the information in Figure 3:

- Transaction prices in the range of 80% to 90% of Own Funds seem most common.
- The majority of those deals with a ratio in excess of 1 involved blocks that were open to new business, which may reflect the value in respect of the potential future new business sales included in the price paid.
- There was greater volatility in the percentage of Own Funds for smaller deals.

³ Note that at each end of the x-axis in Figure 3 the grouping is for example '>140%' rather than '140% to 150%' for ease of presentation.

REGULATORY DEVELOPMENTS

At the time of writing this paper, EIOPA has published its opinion on the Solvency II 2020 review, and HMT and PRA are reviewing the current application of Solvency II in the UK. Both reviews may have an impact on the solvency regulations that apply to companies in Europe going forward and hence the metrics those companies disclose.

Solvency II 2020 Review

In December 2020, EIOPA published its opinion on the Solvency II 2020 review. This followed several consultation papers produced by EIOPA in 2019 and impact assessments carried out during 2020.

Three key areas worth noting, which are relevant to shareholder value reporting, are:

- Technical Provisions changes
 - Changes to the methodology for calculating the Risk Margin (**RM**)
- Interest rate changes
 - A change to the extrapolation technique used for risk free rates
 - Revisions to the volatility adjustment (**VA**)
- Capital changes
 - A change in the calibration of the interest rate curves (up and down) used for Standard Formula (**SF**) firms to determine the interest rate risk sub-module of the SCR.
 - An increase to the symmetric adjustment used within the calculation of the equity risk sub-module of the SF SCR.

The culmination of the above consultation phases and proposals from EIOPA to the European Commission (**EC**) is that on 22 September 2021 the EC announced its proposals to reform Solvency II. Whilst in many areas the EC has followed the advice of EIOPA, the EC proposals do differ in a number of areas.

The precise details of certain proposals from the EC were not presented in the papers released on 22 September 2021, however we note that changes are not expected to be implemented before 2024 and moreover some of the changes may be phased in (e.g. the extrapolation change for risk free rates).

HMT Review

HMT and the PRA have already introduced the first change from the current application of Solvency II in the UK in relation to the risk free discount rate. It is likely that further, subsequent amendments will continue to arise as HMT and the PRA progress with their review and related initiatives.

Two key areas that are under review by the HMT which we believe will impact shareholder value metrics are: the RM and the Matching Adjustment (**MA**).

At present there remains much uncertainty over what the future UK insurance regulatory landscape will look like, and the impact any changes may have on UK insurers. However, on balance, the suite of proposed amendments made by HMT and the PRA will look to leave the UK insurance industry broadly unchanged. That said, it is likely that the impact, of any changes brought in by the review, experienced by firms within the industry at an individual level will vary. In July 2021, the PRA launched a Quantitative Impact Study (**QIS**) to explore a number of scenarios relating to the calibration/calculation of the RM and MA.

IFRS 17

In terms of IFRS 17 providing a further market consistent measure of the value of insurance contracts, one approach gaining traction across the industry is to take the IFRS balance sheet and remove the contractual service margin (**CSM**). Once the CSM has been removed, the liabilities side of the IFRS 17 balance sheet essentially comprises a best estimate and a risk adjustment, akin to the BEL and RM under Solvency II. Whilst there are differences in the calculations of these between IFRS 17 and Solvency II, the similarity of approach drives a clear desire for comparison and explanation. It is likely analysts would explore and question the difference between these two metrics and hence firms may like to get ahead of this question by disclosing a reconciliation between the two metrics as part of their annual reporting.

It is likely that thinking may further develop in this area, as firms get closer to full readiness for implementation in January 2023, before an industry consensus is reached.

ICS

2021 has been the first year that we have observed ICS numbers being published and witnessed some countries committing towards its adoption in a few years. It is likely that within the next couple of years, probably not in significant numbers until after the implementation of IFRS 17, that financial analysts will start asking questions on firms' ICS positions and transactions will start including ICS as one of buyers' and sellers' considerations.

2. Introduction

In the 2020 Shareholder Value Report we explored how the implementation of Solvency II has led to a decrease in the number of companies publicly disclosing embedded value in Europe and how, as a result, the level of Solvency II Own Funds (and its change over time) has seemingly become a more widely disclosed metric.

This looks to be the case not just when companies perform valuation calculations for internal purposes – such as reporting on the growth of the business to external stakeholders, monitoring the performance of the business, or potentially as part of an employee/executive remuneration package – but also, when determining a price for the purposes of a merger or acquisition (a transaction price).

In this publication (in Sections 3 and 4) we consider how the approaches adopted by companies when disclosing supplementary reporting metrics may have changed over 2020 (since those previously reported in the 2020 Shareholder Value Report), as well as the change in the values of such metrics, including how firms' results have been impacted by the COVID-19 pandemic. Furthermore, we consider, at an aggregate level, the movement of Solvency II Own Funds over the year for companies in our sample, and how these can be split into key drivers that could be expected to happen again in the future – such as the contribution from existing business, and new business contribution – and those that may be considered to be one-offs e.g. model or methodology changes, or capital management actions such as the issuance or repayment of debt.

In Section 5, we further develop the transaction pricing analysis we explored in the 2020 Shareholder Value Report, to include transactions which have been announced up to end September 2021 i.e. another year's worth of data. This also means that our analysis has expanded to include transactions where at least one of the firms involved is based in the following selection of 12 European countries: Belgium, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Poland, Romania, Spain, Switzerland and the UK.

Finally, in Section 6, we briefly consider EIOPA's ongoing Solvency II 2020 Review, as well the UK government's own review of Solvency II given the UK's departure from the European Union. Both reviews may have an impact on the solvency regulations that apply to companies in Europe going forward and hence the metrics disclosed for both reporting and transaction purposes. We also touch on developments in IFRS reporting and ICS, specifically in relation to reporting on value metrics and in transaction pricing.

3. Impact of COVID-19 on year-end 2020 results

The COVID-19 pandemic has impacted many, if not all, industries across the globe over 2020; however, in relation to the insurance industry, many firms in our sample demonstrated resilient solvency positions over 2020. This outcome has been attributed in part to the Solvency II framework which, as a risk-based capital regime, looks to ensure that insurance companies better reflect the true risks to which they are exposed and hence hold appropriate capital buffers and enhance policyholder protection.

That said, the challenges thrown up by the pandemic for the insurance industry have been widespread with a number of areas being impacted including new business growth, claims patterns, policyholder behaviour as well as, more fundamentally, operational resilience. Many firms have had to adapt to different workplace models and deal with the associated technological and personnel challenges.

The impact of COVID-19 has been felt globally; however, there has been a variation in impacts between countries in relation to the prevalence of the virus but also the actions taken by national governments and specifically the restrictions that have been put in place. These variations can also be seen between the companies in our sample. For example, given the severity of the pandemic in Italy in early 2020, and the lockdown imposed by the Italian government, Unipol reported that it saw a considerable decline in premiums collected while the lockdown was in force, but then observed a rapid recovery when the lockdown was ended. Similarly, Prudential reported that the closure of the border between Hong Kong and mainland China impacted its sales levels and consequentially new business profitability, but as restrictions were lifted improvements were observed. Many firms in our sample reported the benefit of having a diversified geographical presence, which to some extent mitigated localised variations.

Variation was also observed between product types in relation to claims patterns emerging. For example, a number of firms in our sample who write non-life products, such as Groupama, Unipol and Achmea, reported a decrease in claims associated with this business. In the case of Achmea, it reported that the observed reduction on its mobility and home insurance portfolios may have partly been attributed to government lockdowns and individuals staying at home. That said, AXA and Swiss Re reported an increase in claims in respect of business interruption and event cancellation products. On the other hand, Achmea reported an increase in claims arising from its sickness insurance whereas Swiss Re reported an increase in mortality claims illustrating that other products (i.e. aside from non-life products) were not immune to the effects of the pandemic. Similar to the geographical diversification mentioned above, many firms in our sample reported the benefit of having a diversified product offering, which to some extent mitigated product specific claim variations.

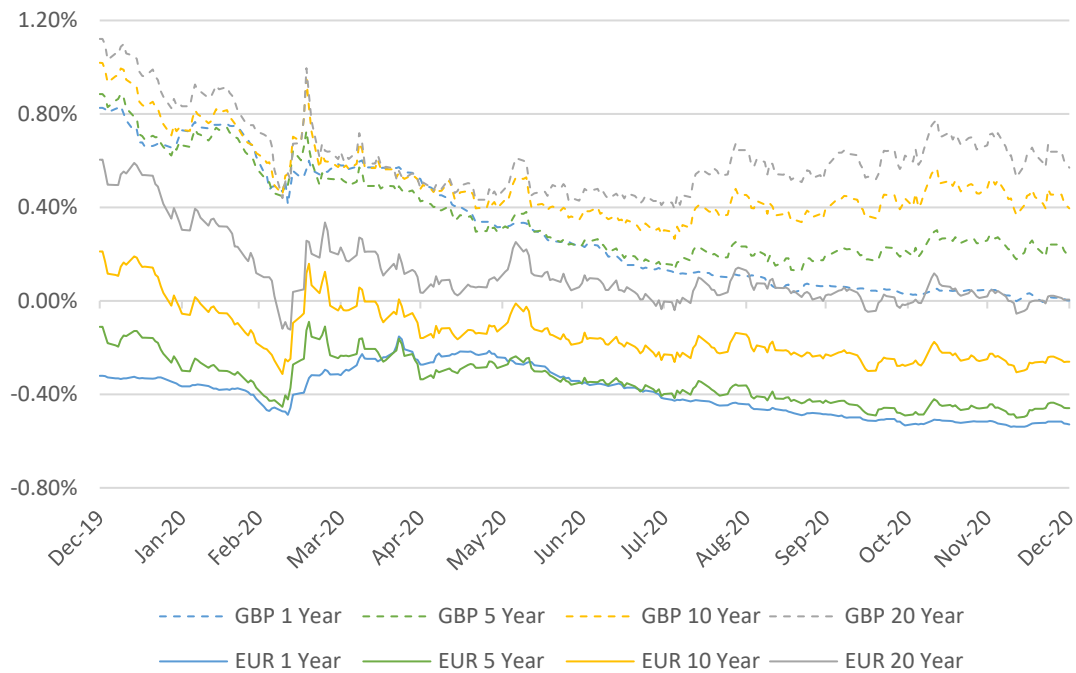
The general level of uncertainty brought about by the pandemic led to many firms reporting a reduction in new business volumes and consequently overall levels of profit. Whilst geographical factors were reported by many firms across our sample as playing a role (for example, CNP reported that new business sales were lower in France), it is clear that the impact of COVID-19 has not been limited to certain product types, with all lines of business being impacted to some extent. For example, CNP reported lower new business sales across all segments but especially in respect of its Traditional Savings and Credit Insurance, whereas Allianz reported more generally that new business volumes had decreased on its life products.

As well as policyholder behaviour impacting levels of new business, a number of firms in our sample also reported an impact on existing business. For example, Scottish Widows reported negative impacts such as the withdrawal of saver funds and premium reductions, but equally observed positive impacts such as a reduction in lapses on its protection business. Aviva reported more generally that it had observed reduced customer activity in respect of its life business.

The extreme volatility of the financial markets resulting from the uncertainty around the COVID-19 pandemic negatively impacted the majority of firms in our sample over the first half of 2020, but by the end of 2020 markets had recovered to a degree. That said, a handful of firms in our sample reported a limited COVID-19 impact mainly thanks to a conservative investment strategy or having an investment portfolio with minimal exposure to sectors that were sensitive to COVID-19.

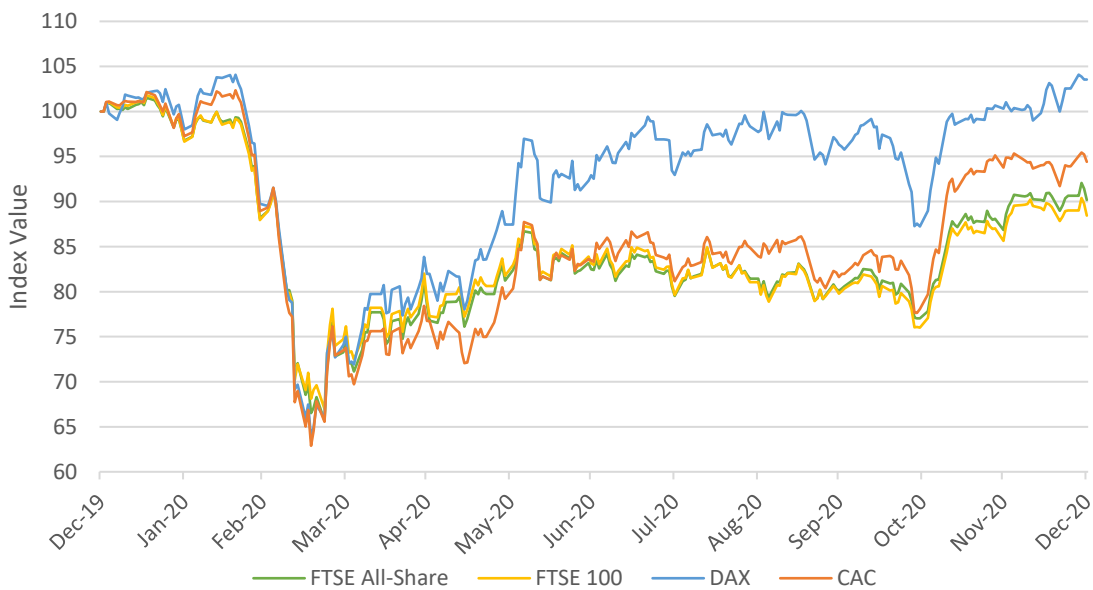
More specifically, firms reported being impacted by the drop in the financial market in the first quarter of 2020, e.g. as shown in Figure 4 in respect of EUR and GBP swap rates in an already low interest environment; as well as increased market volatility, e.g. as shown in Figure 5 in respect of equity markets; spread widening in respect of corporate bonds as shown in Figure 6; and increased credit risk.

FIGURE 4: RECENT TRENDS IN GBP AND EUR LIBOR SWAP RATES



Source: Bloomberg

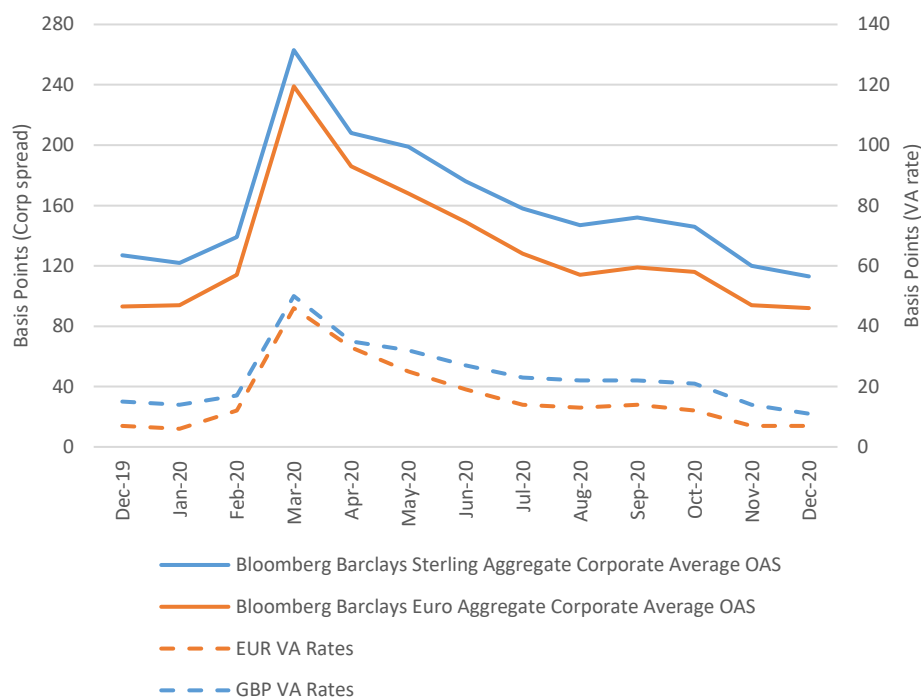
FIGURE 5: RECENT EQUITY MARKET PERFORMANCE



Source: Bloomberg

Indices above are the gross total return indices and have been rebased to 100 as at 31 December 2018.

FIGURE 6: RECENT TRENDS IN CORPORATE SPREADS AND VA RATES (BPS)



Source: Bloomberg; Barclays and EIOPA

In response to the market movements, various central banks adopted monetary measures – e.g. via the lowering of interest rates; implementing quantitative expansion measures via bond acquisition programs (both sovereign and corporate); and via Recovery Fund initiatives, including non-repayable subsidies – with a view to mitigating the impact of these movements on market participants, including insurance firms which are one of the major groups of institutional investors. For example, the European Central Bank (**ECB**) initiated a non-standard monetary policy measure via its pandemic emergency purchase programme (**PEPP**). The ECB defined the PEPP as a temporary asset purchase programme of private and public sector securities. The Governing Council of the ECB decided to increase the initial €750 billion envelope for the PEPP by €600 billion on 4 June 2020 and by €500 billion on 10 December, for a new total of €1,850 billion.

By the end of April 2020 there were already signs of recovery from the initial market shock in Q1 2020, as shown in Figure 4 to Figure 6 above, and by the end of 2020 many financial markets had rebounded from the lows seen earlier in the year.

As a result of the market movements over 2020, firms in our sample reported experiencing:

- A reduction in financial income due to lower dividends, either through reduced payment amounts or due to the cancellation or deferral of dividends
- Lower investment income e.g. from bond revenue, property asset holdings including rent losses
- Lower realised gains; (an increase in) asset impairments – mainly in respect of equity holdings, real estate investments, and alternative investments – as well as asset depreciation e.g. on directly held real estate
- Generally lower reinvestment yields.

Whilst some firms commented that they had experienced no defaults in respect of their fixed income portfolios, others disclosed that they had taken active steps to manage their credit exposure (e.g. Phoenix reported that it actively reduced its exposure to 'BBB' rated GBP liquid credit by replacing existing positions that were deemed at-risk of downgrade with higher rated US liquid credit, with the subsequent currency exposure being hedged by entering into cross-currency swaps).

There were variations between firms in respect of the impact of currency movements experienced over the year. For example, Hannover Re reported a higher than expected positive contribution from exchange rate movements particularly with regards to the US dollar, whereas Munich Re reported that the depreciation of foreign currencies against the euro strained its economic earnings.

In terms of management actions taken, specifically in response to financial market movements, firms in our sample reported:

- Performing an extensive review of asset allocation, asset reallocations and/or disposing of assets, including fixed-interest securities, equities and real estate
- Reviewing duration management
- Deploying hedging strategies
- Purchasing credit default swap protection
- Adopting other risk mitigating/de-risking measures.

A limited number of companies in our sample explicitly reported on the impact of the pandemic on liquidity. Ageas reported that its liquidity position remained strong and essentially unaffected by the pandemic. Whereas Generali noted that in the event of a further deterioration of the COVID-19 crisis, liquidity could become a topic of concern for the insurance sector and hence increased its cash buffers and began to monitor its operating, investment and financial cashflows even more closely.

The majority of firms in our sample have not reported in any detail on how the pandemic affected them at an operational level. That said, Phoenix reported that the COVID-19 pandemic had posed operational challenges for the group and a new way of working, and VIVAT (now Athora Netherlands) reported that the pandemic had resulted in all of its employees working remotely for most of 2020, thereby introducing challenges across technology and tools, relationship building (within the firm) and employee mental health wellbeing.

More specifically, Generali reported an increase in its staff working from home, as part of its wider cost saving initiatives, and Aegon reported that it achieved expense savings resulting from reduced employee travel as well as the scaling back of sales and marketing activities due to the COVID-19 pandemic.

As well as benefitting from potential cost savings, a number of firms in our sample reported taking management actions (other than asset rebalancing) in response to the changing business environment. For example, Irish Life offered premium payment breaks and deferral options as a result of COVID-19, and similarly Groupama took measures to support customers such as premium reductions. Whereas Aviva reported a withdrawal of salary increases in April 2020, and Generali reported that its management took voluntary pay cuts to reduce expenses. More generally, Unipol reported that the Group implemented a number of initiatives to support the agency network, as well as customers and the community, and AXA reported that it adopted solidarity measures in France to support policyholders, such as extending health and disability coverage to vulnerable customers, extending services to healthcare professionals in several countries and leveraging its own medical networks and teleconsulting services to contribute to the healthcare effort.

IMPACT ON THE PAYMENT OF DIVIDENDS

One of the major areas where management took action related to the payment of dividends. This was against the backdrop of regulators, such as EIOPA, providing advice/guidance for firms to take a more prudent approach to the distribution of profits in 2020.

In Figure 7, we set out a summary of whether firms in our sample paid any dividends in 2020, or otherwise.

At a high level, we have broadly categorised firms in Figure 7 into three groups in respect of their dividend activity over 2020, as follows:

- **Red** – Dividend policy over 2020 deviated from previously disclosed information, leading to no dividend payments in 2020
- **Amber** – Dividend policy over 2020 deviated from previously disclosed information but a dividend of some form was paid in 2020 e.g. dividend payments postponed, but later paid; dividend payments reduced from originally declared amount etc.
- **Green** – Dividend policy over 2020 did not deviate from previously disclosed information.

FIGURE 7: SUMMARY OF DIVIDENDS OVER 2020 MEASURED AT YEAR-END 2020

Firm	Dividend activity in 2020	Dividend activity in 2020 - further details	Status 2020	Update provided in 2021 on dividends in respect of 2020	Status 2021
Ageas	Paid - full dividend in respect of 2019, but payment was delayed.	In April 2020, Ageas postponed full dividend in respect of 2019 of €2.65 per share. Ageas paid a dividend of €0.27 per share in respect of 2019 on 4 June 2020 followed by another dividend of €2.38 per share in respect of 2019 on 5 November 2020 (totalling the initially proposed figure of €2.65 per share in respect of 2019).	AMBER	On 24 February 2021, Ageas proposed a dividend in respect of 2020 to be €2.65 per share. A final dividend in respect of 2020 of €2.65 per share was paid on 4 June 2021.	GREEN
AXA	Reduced - full dividend in respect of 2019.	A final dividend in respect of 2019 of €1.43 per share was proposed in February 2020. On 2 June 2020, a reduction from €1.43 per share to €0.73 per share was proposed. This was approved on 30 June 2020 and paid on 9 July 2020. An exceptional dividend of €0.70 was also considered at this time but on 5 August 2020, AXA decided that this distribution would not be made.	AMBER	On 29 April 2021 the payment of the full dividend in respect of 2020 of €1.43 per share was approved at the AGM, which was subsequently paid on 11 May 2021.	GREEN
BNP Paribas	Retained - full dividend in respect of 2019.	BNP had proposed a dividend of €3.10 per share in respect of 2019. On 19 May 2020, BNP's Board decided not to proceed with the dividend payment in respect of 2019.	RED	On 26 February 2021, BNP Paribas proposed an ordinary cash dividend in respect of 2020 of €1.11 per share. This was paid on 26 May 2021. On 24 September 2021, at the AGM, a second ordinary cash dividend of €1.55 per share in respect of 2020 was proposed and was paid on 30 September 2021.	GREEN
CNP	Retained - full dividend in respect of 2019.	On 20 February 2020, a dividend of €0.94 per share in respect of 2019 was announced. On 17 April 2020 it was proposed to the AGM that the dividend in respect of 2019 be cancelled in light of the uncertain impact of the COVID-19 pandemic. As a result, CNP decided to retain all 2019 earnings.	RED	On 17 February 2021, CNP announced a dividend of €1.57 per share, comprising €0.80 in respect of 2019 and €0.77 in respect of 2020. This was paid on 23 April 2021.	GREEN
SCOR	Retained - full dividend in respect of 2019.	On 27 February 2020, a dividend of €1.80 per share in respect of 2019 was proposed. On 16 June 2020, SCOR confirmed no dividend would be distributed in respect of 2019.	RED	On 24 February 2021, SCOR proposed a full dividend in respect of 2020 to be €1.80 per share. This dividend was paid on 6 July 2021.	GREEN
Allianz	Paid - full dividend in respect of 2019.	On 21 Feb 2020, Allianz proposed a full dividend in respect of 2019 of €9.60 per share. This was paid on 11 May 2020.	GREEN	On 19 February 2021, Allianz proposed a full dividend in respect of 2020 of €9.60 per share. This was paid on 10 May 2021.	GREEN
Hannover Re	Paid - full dividend in respect of 2019.	Full dividend in respect of 2019 of €5.50 per share was initially proposed on 6 May 2020. This comprises an ordinary dividend of €4.00 per share plus a special dividend of €1.50 per share. This was paid on 10 May 2020.	GREEN	Full dividend in respect of 2020 of €4.50 per share was initially proposed on 5 May 2021. This represents the full ordinary dividend, with a decision made to omit the special dividend in respect of 2020 in light of current market opportunities. This was paid on 10 May 2021.	GREEN
Munich Re	Paid - full dividend in respect of 2019.	On 3 March 2020, Munich Re proposed a full dividend of €9.80 per share in respect of 2019. This was paid on 5 May 2020.	GREEN	On 18 March 2021, Munich Re proposed a full dividend in respect of 2020 of €9.80 per share. This was paid on 3 May 2021.	GREEN

Firm	Dividend activity in 2020	Dividend activity in 2020 - further details	Status 2020	Update provided in 2021 on dividends in respect of 2020	Status 2021
Generali	Proposed and partially paid - full dividend in respect of 2019.	Proposed total dividends of €0.96 in respect of 2019. On 20 May 2020, the first tranche of dividends in respect of 2019 was paid at €0.50 per share. The second tranche of €0.46 per share was postponed.	AMBER	On 10 March 2021, Generali proposed a 2020 dividend of €1.47 per share, to be split into two tranches of €1.01 and €0.46. The first tranche, paid on 26 May 2021, represented the ordinary pay-out from 2020 earnings. The second tranche, related to the second part of the 2019 retained dividend, was paid on 20 October 2021.	GREEN
Unipol	Retained - full dividend in respect of 2019.	A full dividend in respect of 2019 of €0.28 per share was proposed on 19 March 2020. This was subsequently retained following IVASS' notification to Italian insurance companies and groups requesting they adopt extreme prudence in the distribution of dividends in light of the COVID-19 pandemic. As a result, no dividends were paid by Unipol in the 2020 calendar year.	RED	On 29 April 2021, a full dividend in respect of 2020 of €0.28 per share was approved by the shareholders, and subsequently paid on 26 May 2021. Additionally, a shareholders meeting was called on 1 October 2021, whereby a dividend payment of €0.28 per share in respect of 2019 was proposed to be paid from the extraordinary profit reserves recorded on the balance sheet in 2020 by retaining the dividend. This was approved, and due to be payable from 20 October 2021.	GREEN
Achmea	Paid - full dividend in respect of 2019, but payment was delayed.	On 10 March 2020, a full dividend of €149.7m (or €0.38 per ordinary share) in respect of 2019 was proposed. In April 2020, Achmea decided to suspend the dividend distribution to ordinary shareholders in respect of 2019, in light of the call from EIOPA and De Nederlandsche Bank (DNB) to the market more generally. In September 2020, Achmea decided to pay out the dividend, after considering the firm's financial position.	AMBER	On 11 March 2021, Achmea proposed a full dividend in respect of 2020 of €149.7m (€0.38 per ordinary share). This was paid out in the first half of 2021.	GREEN
Aegon	Retained - final dividend in respect of 2019 Paid - interim dividend in respect of 2020	On 2 April 2020, a decision was made to postpone all dividend distributions. On 15 May 2020, Aegon decided to forego its final dividend in respect of 2019. Paid an interim dividend in respect of 2020 of €0.06 per share on 18 September 2020.	RED	A final dividend in respect of 2020 of €0.06 per share was proposed on 11 February 2021. This was paid on 7 July 2021.	GREEN
ASR	Paid - final dividend in respect of 2019, but payment was delayed. Paid - interim dividend in respect of 2020	A final dividend in respect of 2019 of €1.20 per share was initially postponed in April 2020. This was subsequently paid as a special dividend in August 2020. An interim dividend in respect of 2020 of €0.76 per share was paid in September 2020.	AMBER	The full dividend in respect of 2020 of €2.04 was announced on 18 February 2021, which comprised the €0.76 interim dividend (paid in September 2020) and a final dividend in respect of 2020 of €1.28 per share. The final dividend was paid during the first half of 2021.	GREEN
NN	Paid - final dividend in respect of 2019, but payment was delayed Paid - interim dividend in respect of 2020	A final dividend in respect of 2019 of €1.40 per share was initially suspended in April 2020. This, alongside an interim dividend in respect of 2020 of €0.86 per share, was subsequently paid on 2 September 2020, amounting €2.26 per share.	AMBER	A final dividend in respect of 2020 of €1.47 per share was paid on 16 June 2021.	GREEN

Firm	Dividend activity in 2020	Dividend activity in 2020 - further details	Status 2020	Update provided in 2021 on dividends in respect of 2020	Status 2021
Mapfre	Paid - final dividend in respect of 2019	On 25 June 2020, a final dividend in respect of 2019 of €0.0858 per share was paid.			
	Paid - interim dividend in respect of 2020	On 22 December 2020, an interim dividend in respect of 2020 of €0.0505 per share was paid.	GREEN	Final dividend in respect of 2020 of €0.0757 per share was paid on 24 May 2021.	GREEN
	Proposed - final dividend in respect of 2020	A final dividend in respect of 2020 of €0.0757 per share was proposed to the AGM.			
VidaCaixa	Paid - supplementary dividend in respect of 2019	Paid a supplementary dividend of €51.41m (€0.23 per share) in respect of 2019 in April 2020.			
	Paid - 1st interim dividend in respect of 2020	Paid 1st interim dividend in respect of 2020 of €300m (€1.34 per share) on 16 October 2020.	AMBER	Paid remainder of the 2nd interim dividend in respect of 2020 (€190m) in March 2021.	GREEN
	Proposed and partially paid - 2nd interim dividend in respect of 2020	A 2nd interim 2020 dividend of €375m (€1.67 per share) was announced on 22 December 2020 and was partially paid in December 2020 (€185m).			
Aviva	Paid - 2nd interim dividend in respect of 2019	Withdrew final dividend in respect of 2019 of 21.4p per share. Subsequently paid second interim dividend in respect of 2019 of 6p per share in September 2020.	AMBER	The interim dividend in respect of 2020 of 7p was paid in January 2021. Final dividend in respect of 2020 confirmed in March 2021 and was paid in May 2021.	GREEN
	Proposed - interim and final dividend in respect of 2020	In November 2020, a dividend of 21p per share in respect of 2020 was proposed, 7p of which was an interim dividend and 14p of which was an expected final dividend.			
Legal & General	Paid - final dividend in respect of 2019	A final dividend in respect of 2019 of 12.64p per share was paid in June 2020.	GREEN	A final 2020 dividend of 12.64p per share was paid in June 2021.	GREEN
	Paid - interim dividend in respect of 2020	An interim dividend in respect of 2020 of 4.93p per share paid in September 2020.			
Phoenix	Paid - final dividend in respect of 2019	Final dividend in respect of 2019 of 23.4p per share was paid in May 2020.	GREEN	A final 2020 dividend of 24.1p per share was approved at AGM on 14 May 2021, being paid on 18 May 2021.	GREEN
	Paid - interim dividend in respect of 2020	An interim dividend in respect of 2020 of 23.4p per share was paid in September 2020.			
Swiss Re	Paid - final dividend in respect of 2019	On 20 February 2020, a dividend in respect of 2019 was proposed of CHF 5.90 per share. This was paid on 23 April 2020.	GREEN	On 19 February 2021, a dividend in respect of 2020 was proposed of CHF 5.90. This was paid on 22 April 2021.	GREEN

At a high level, using the three groups defined above, Figure 7 shows that:

- For dividend activity in 2020: there are 5 firms categorised as red, 8 firms categorised as amber and 7 firms categorised as green.
- In respect of the update provided in 2021 on dividends in respect of 2020: all firms have been categorised as green.

Therefore, Figure 7 shows that the majority of firms in our sample did deviate in some way from their intended dividend plans in 2020, but ultimately paid out a dividend of some form in 2020 (i.e. categorised as 'amber'). However, there are a handful of firms which decided to forego the payment of dividends, and others which reported no change from their previously disclosed plans.

For firms which did not explicitly disclose COVID-19 impacted their dividend policy over 2020 and then either reported a postponement of their dividend in 2020 or a reduction in the amount paid in 2020, it remains unclear whether COVID-19 was the cause. However, it is likely to have been a contributing factor in many cases.

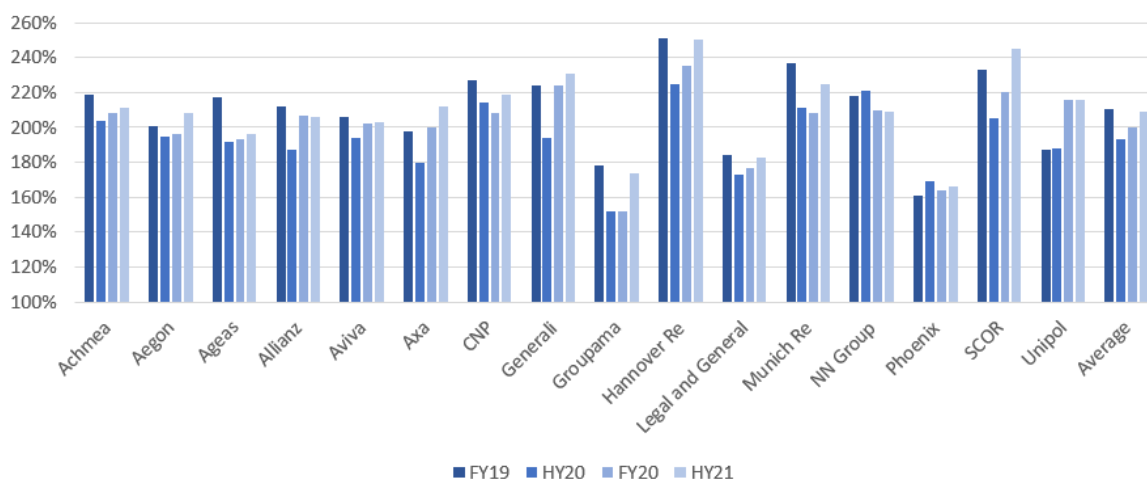
The final column of Figure 7 shows that the position has improved for all firms based on information disclosed in 2021 to date, with the majority of firms in our sample being 'back on track' with respect to payments of planned dividends.

A handful of firms in our sample reported on how government initiatives have provided assistance more generally. For example, Achmea reported a positive impact on its health business arising, in part, due to government contribution under the statutory catastrophe scheme (in the Netherlands) from the Health care insurance fund ('Zorgverzekeringsfonds').

IMPACT ON SOLVENCY COVERAGE RATIOS

For those firms across our sample who have also disclosed half-year results at 2020 and 2021, we have set out the evolution of their solvency coverage over 2020 and into the first half of 2021 in Figure 8.

FIGURE 8: EVOLUTION OF REPORTED SOLVENCY COVERAGE RATIO (%) FROM YEAR-END 2019 TO HALF-YEAR 2021



Whilst there is variation at the company level, overall results show that firms saw a reduction in their Solvency Coverage Ratio in the first half of 2020, but that solvency levels had largely recovered at the end of 2020. In particular across the 16 firms included in Figure 8, 13 firms observed their Solvency Coverage Ratio reduce at 2020 half-year, where the level of reduction ranged from -6% to -30%. Looking at the same group of firms, they observed an increase in their Solvency Coverage Ratio at year-end 2020 ranging from 1% to 30% (excluding CNP, Munich Re and Groupama, which observed either a slight reduction ratio, or an unchanged ratio, at year-end 2020 from half-year 2020).

AXA's management stated its belief that 'Covid is an earnings event and not a capital event'. Figure 8 appears to support the view that, on balance, insurers showed resilience to COVID from a capital perspective.

Figure 8 also shows that the majority of firms have observed a further improvement in their Solvency Coverage Ratio in the first half of 2021 compared with year-end 2020. For this group of firms, the level of improvement ranged from 1% to 25%. This improvement in solvency ratio is in spite of new variants of COVID-19 emerging over 2021 to date, and has potentially been strengthened by the roll-out of various vaccines across Europe. We shall revisit this in our analysis next year once year-end 2021 reports/publications are available for firms.

Whilst a handful of firms in our sample reported observing favourable mortality and morbidity experience over 2020, only Scottish Widows discussed how this may impact future assumptions. In its case, it has determined that due to the uncertainty of duration of the impact of COVID-19, future assumptions on its annuity portfolio have not currently been adjusted to reflect the observed increased mortality. In the release of the Continuous Mortality Investigation's (CMI) latest model (CMI_2020), which projects UK mortality rates, the CMI noted in the

accompanying Working Paper 147⁴ that although mortality in 2020 was significantly higher in England and Wales as a result of the COVID-19 pandemic compared with recent years, it has placed no weight on data for 2020 within the Core version of CMI_2020.

More generally, whilst the initial turbulence arising from the COVID-19 pandemic seems to have passed, it remains uncertain what the medium and long term impacts of the pandemic may be to European insurers. For example, will the restoration to a sense of normality bring with it a delayed impact (e.g. a spiked increase in lapses, a backlog of claims for sickness products (as delays in obtaining the necessary documentation reduce), an increase in sickness claims due to the impact of long COVID), or can firms expect a return to pre-COVID-19 experience?

SCOR has reported its belief that COVID-19 is driving a general increase in risk aversion which in turn is driving higher demand for risk coverage, and that therefore longer term, the fallout from COVID-19 could have positive impacts for some insurance companies. This, as well as the impact from the roll-out of various vaccines across Europe over 2021 to date, may be observed in 2021 year-end results which will be covered in our analysis next year.

⁴ <https://www.actuaries.org.uk/learn-and-develop/continuous-mortality-investigation/cmi-working-papers/mortality-projections/cmi-working-paper-147>

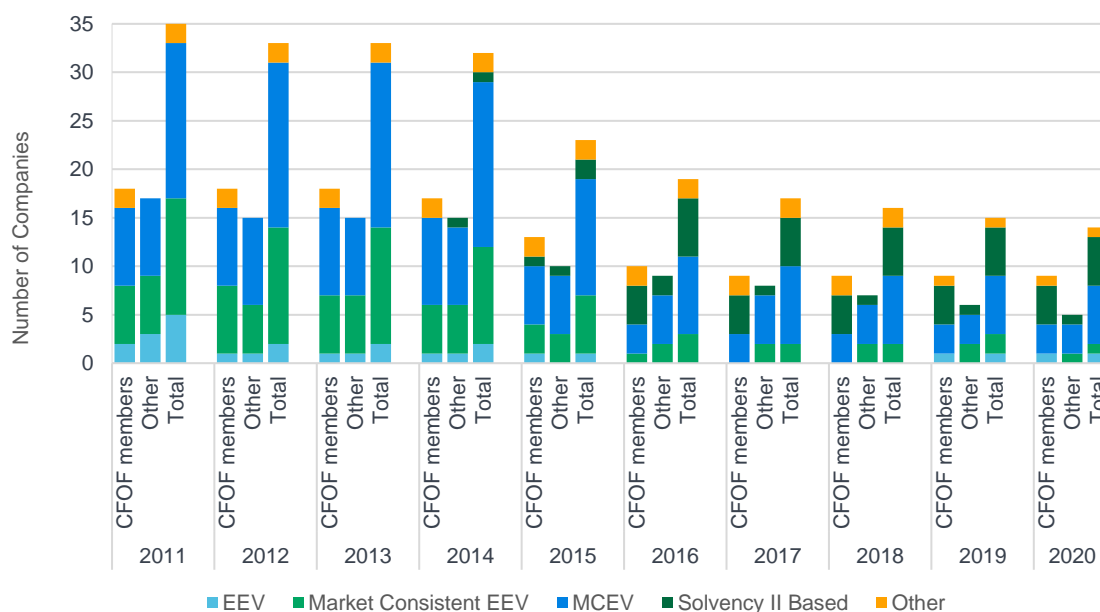
4. Year-end 2020 results

BACKGROUND

As detailed in our recent shareholder value related publications, since the implementation of Solvency II at the end of 2015/start of 2016, there has been a decline in the number of companies in Europe publicly disclosing embedded value, although this decline seems to have stabilised in recent years.

This can be seen in Figure 9, split between CFO Forum (CFOF) members and ‘Other’ companies, and split by different bases upon which embedded value is calculated.

FIGURE 9: EMBEDDED VALUE REPORTING PRINCIPLES AT YEAR-ENDS 2011–2020



Notes:

1. Swiss Re does not report explicitly under either EEV or MCEV Principles but under a framework called Economic Value Management (EVM) and has been classed as ‘Other’.
2. Following the demerger of M&G from Prudential plc., Prudential reports under solely EEV Principles in 2019 (where previously it was classed as ‘Other’ due to adopting a market consistent approach for a specific tranche of UK business).

As a result of this decline in the reporting of embedded value in Europe, we have instead focused on value/capital generation disclosures. In this section of this paper we have focused on the value/capital generation disclosures of just over 20 companies in the European market which span the following countries (based on their headquarters): the Netherlands, Belgium, Germany, Italy, France, UK and Spain. In selecting these companies, we have focused on group companies and the bigger players which operate in the insurance industry in Europe. These firms are shown in Figure 10.

FIGURE 10: FIRMS CONSIDERED IN OUR SAMPLE

▪ Achmea B.V.	▪ Gruppo Unipol
▪ Aegon N.V. Group	▪ Hannover Re Group
▪ Ageas SA/NV	▪ Legal & General Group plc
▪ Allianz Group	▪ Mapfre Group
▪ ASR Nederland	▪ Munich Re Group
▪ Assicurazioni Generali S.p.A.	▪ NN Group N.V.
▪ Aviva plc	▪ Phoenix Group Holdings
▪ AXA Group	▪ SCOR Group
▪ BNP Paribas Cardif Group	▪ VidaCaixa ⁵
▪ Groupe CNP Assurances	▪ VIVAT N.V. (now Athora Netherlands)
▪ Groupe Groupama	▪

Following on from the 2020 Shareholder Value Report, this section of the paper is split into three parts:

- A recap on what Solvency II related metrics (other than the level of Solvency II Own Funds or Solvency II Coverage Ratio) companies in our sample chose to disclose in their supplementary disclosures as at year-end 2019 (covered in our report from last year)
- Whether the approach adopted by firms in our sample has changed from year-end 2019 to year-end 2020
- A look at the movement in the disclosed metric over the year, and where possible, provide a discussion of common themes for evolution of metric over 2020, including:
 - Operational impacts
 - New business
 - Market movements
 - Management actions
 - Dividends/capital management.

As part of this research the main sources of information for each company were the Annual Report, analyst presentations or other investor communications, and the SFCR.

WHAT SOLVENCY II RELATED METRICS DISCLOSED BY COMPANIES IN OUR SAMPLE

In the 2020 Shareholder Value Report, we observed that companies have started to disclose Solvency II earning metrics such as 'Solvency II Capital Generation'. However, 'Solvency II Capital Generation' remains a non-standard term, and as at year-end 2019 many of the companies in our sample disclosed similar metrics with various names and slightly varying definitions.

Figure 11 shows four potential capital generation metrics which we have defined, although we note that none of our sample of companies disclosed 'Own Funds Generation' as a key Solvency II based earnings metric, possibly since it may be considered more of solvency metric.

⁵ VidaCaixa, S.A.U. de Seguros y Reaseguros y Sociedades Dependientes (VidaCaixa)

FIGURE 11: POTENTIAL CAPITAL GENERATION METRICS

Capital Generation Metrics	Full Amount	Part of Amount
No Allowance for SCR	Own Funds Generation	Normalised Capital Generation
Allowance for SCR	Free Capital Generation	Operating Capital Generation

The definition of these terms can be found in the 2020 Shareholder Value Report, but in brief:

- **Normalised Capital Generation:** Relates to the change in the level of Solvency II Own Funds that is related to 'business as usual' activities and factors which can be controlled or influenced by management, over the reporting period. The associated impact on capital requirements (i.e. the SCR) is not considered.
- **Free Capital Generation:** Relates to the change in the level of Solvency II Own Funds over and above the SCR, over the reporting period. The level of capital may or may not include a target buffer in line with the company's risk appetite/capital management policy. Where this buffer is included, this metric may indicate the increase in the amount of capital over the period that could be paid out as a dividend.
- **Operating Capital Generation:** Combines parts of both 'Normalised Capital Generation' and 'Free Capital Generation' that is, the change in the level of Solvency II Own Funds over and above the SCR that is related to 'business as usual' activities and factors which can be controlled or influenced by management, over the reporting period. As with 'Free Capital Generation', the level of capital may or may not include a target buffer in line with the company's risk appetite/capital management policy.

UPDATE ON APPROACH TAKEN BASED ON YEAR-END 2020 DISCLOSURES

In the 2020 Shareholder Value Report, we set out the approaches taken by firms in our sample at year-end 2019. Having reviewed year-end 2020 disclosures, we have found there to be no material changes in the approach adopted by companies in our sample over 2020.

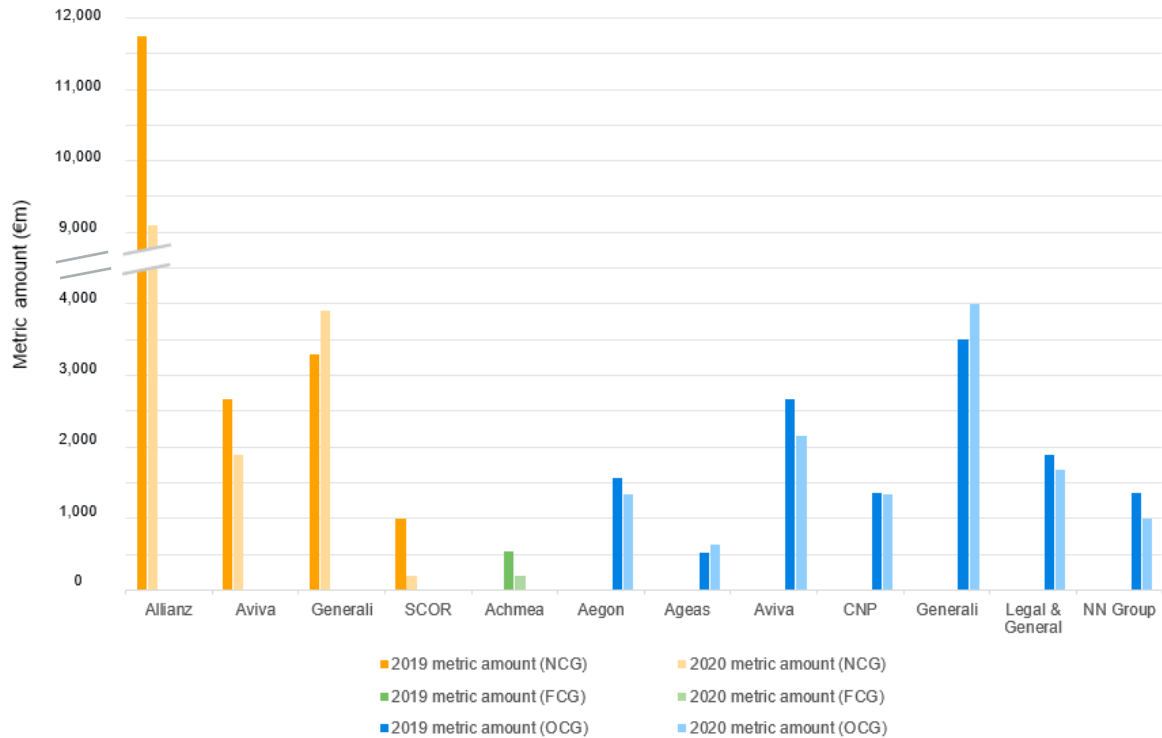
However, we have expanded our list of companies sampled to now include ASR Nederland. ASR appears to disclose a metric akin to 'Operating Capital Generation' (**OCG**), although the company's chosen name for the metric is '(Organic) Capital Generation', where this is based on the SCR including a buffer. We note that ASR did change the definition of its OCG in 2019, although this revision mainly reflected a refinement in approach rather than a definitive change, and there appear to have been no material changes in its definition of the metric over 2020.

We note that, for our sample of companies, the level of disclosure at year-end 2020 remains greatest for companies headquartered in the Benelux region as well as a number those headquartered in the UK.

RESULTS AT YEAR-END 2020

In Figure 12, we consider the change in the disclosed metric over the year across our sample companies. The companies have been grouped into the three categories of capital generation metric as set out in Figure 11.

FIGURE 12: METRIC AMOUNT (IN EUR M) DISCLOSED AT YEAR-END 2019 AND YEAR-END 2020



Notes:

1. The abbreviations in Figure 12 are as follows: Normalised Capital Generation (NCG); Free Capital Generation (FCG); Operating Capital Generation (OCG).
2. Whilst Allianz did not disclose an amount of its OCG metric as at 31 December 2020, it did disclose that the metric had reduced in size by 12% at year-end 2020, compared with the year-end 2019 amount.
3. SCOR disclosed that its metric, excluding the impact of COVID-19, amounted to €815m. However once the impact of COVID-19 was included, this reduced by €615m, to give an overall metric amount of €200m. This compares to an amount as at year-end 2019 of €996m.

Considering the data as a whole, we can see that whilst there is some variation at a firm level, most firms observed a reduction in the amount of their capital generation metric over 2020 compared to 2019 (i.e. the level of capital generated was reduced, typically observing a percentage change in the range of -15% to -25%). However, in all cases the metric remained positive as at year-end 2020.

In the next sub-section, we consider a breakdown of the movement in Own Funds over 2020, which is a piece of information disclosed by most firms in our sample.

BREAKDOWN OF THE MOVEMENT IN OWN FUNDS OVER 2020

In the 2020 Shareholder Value Report, we proposed an ‘ideal’ breakdown in Solvency II earnings metrics to help explain the key drivers of a firm’s performance. This is shown in Figure 13, which has been reproduced from the 2020 Shareholder Value Report.

FIGURE 13: SUGGESTED IDEALISED TEMPLATE FOR THE BREAKDOWN IN CAPITAL GENERATION METRIC

1.	Opening adjustments, split into:
a.	Model changes
b.	Methodology changes
2.	Existing business contribution, split into:
a.	The expected real-world return ⁶ on assets in excess of the BEL
b.	The expected real-world spread ⁷ on assets backing the BEL (including the impact on the BEL)
c.	The impact of the unwinding of the Ultimate Forward Rate (UFR) / UFR drag
d.	The release of the Risk Margin (on existing business)
e.	The impact of run-off of the Solvency II transitionals (on existing business)
3.	New business contribution
4.	Impact of management actions (typically relating to actions taken with respect to the SCR such as reinsurance, hedging etc.)
5.	Financing costs
6.	Changes to operating / non-economic assumptions
7.	Operating / non-economic experience variances (where the variances are with reference to the expected return/spread levels in 2)a) and 2)b)) ⁸
8.	Changes to non-operating/economic assumptions, including:
a.	The impact of any changes to Solvency II parameters provided by the EIOPA such as the UFR, volatility adjustment
9.	Non-operating / economic experience variances
10.	Other items, including tax, holding company expenses, pension scheme impacts, merger and acquisition activity, portfolio and business transfers ⁹
11.	Capital management, such as the issuance and repayment of debt, share buy-backs and dividends
12.	Closing adjustments

Based on the information disclosed by firms in our sample, it has not been possible to fill out this ‘ideal’ breakdown. Instead, in Figure 14 we set out a breakdown of the movement in Own Funds over 2020 for companies in our sample on an aggregate basis in order to identify which factors had the most material impact and potentially also the most widespread impact across firms split into the following ‘higher-level buckets’:

- Model changes
- Operational impacts
- New business
- Management actions
- Market impacts
- Other miscellaneous items
- Capital management (which includes payment of dividends).

⁶ If possible, details of the expected real-world returns assumptions should be disclosed.

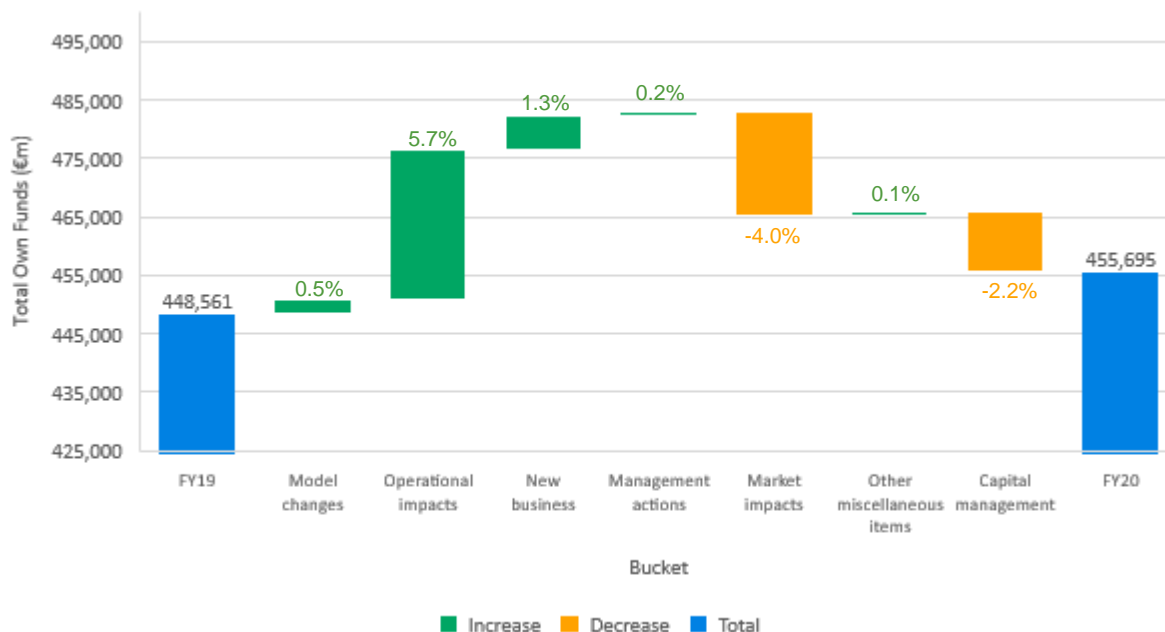
⁷ This expected real-world spread is the expected return over the risk free rate used in the calculation of the BEL so would include the volatility adjustment and matching adjustment, if these are relevant for the company.

⁸ Some companies (and even the PRA) have suggested grouping the impact of changes in operating assumptions and operating variances into one source but we believe that splitting these out, where possible, provides useful additional information.

⁹ Shareholder transfers from with-profits funds may also be included for companies with participating business.

Given the non-standardised nature of the disclosures around the movement in Own Funds across firms in our sample, a number of simplifications and judgements have been required to be made to arrive at the breakdown in Figure 14. However, in spite of these adjustments we think that the analysis provides a useful insight into the key drivers of firms' performance over 2020.

FIGURE 14: AGGREGATE EVOLUTION OF OWN FUNDS OVER 2020 FOR COMPANIES IN OUR SAMPLE (EUR M)



Notes:

1. The majority of firms included in Figure 14 report results in euros. For the handful of other firms we have converted results as at 31 December 2020 using publicly sourced exchange rates which may introduce small currency differences.

The sections below provide further details of the items reported by companies in our sample in each of the categories listed above.

COMMON THEMES FOR BREAKDOWN OF THE MOVEMENT IN OWN FUNDS OVER 2020

Model changes

In our categorisation this includes both model and methodology changes. Achmea, AXA and Generali reported changes in this area which had a non-trivial impact and disclosed a further level of granularity.

Achmea, which uses a partial internal model approach, reported that its result was favourably impacted by new guidance from De Nederlandsche Bank (**DNB**), the Dutch Central Bank, which changed the treatment of banking entities in the calculation of its Solvency figures.

AXA reported favourable modelling changes and opening adjustments over 2020, citing two main factors in relation to modelling: firstly the regulatory review of the boundaries of contracts in Japan led to a reduction in the impact of the Solvency II contract boundaries limitations, and secondly a change from using the Solvency II SF to using AXA Group's internal model for AXA XL entities.

Generali reported a favourable impact on the RM resulting from the extension of its Partial Internal Model to operational risk.

Operational impacts

In the suggested 'ideal' breakdown of capital generation metrics, the following components could be included under 'Operational impacts':

- The impact of the unwinding of the UFR / UFR drag
- The release of the RM (on existing business)
- The impact of run-off of the Solvency II transitionals (on existing business)
- Changes to operating / non-economic assumptions
- Operating / non-economic experience variances (where the variances are with reference to the expected real-world return/spread levels)¹⁰.

It would be most useful for firms to provide some indication of the level of capital generation that arises 'naturally' from the existing business on the balance sheet at the start of the period. The majority of firms in our sample did not disclose this level of granularity when reporting the breakdown of movement in Own Funds. Therefore, the 'Operational Impacts' category includes other items such as non-economic experience variances and non-economic assumption changes.

Of the firms in our sample, Generali and Phoenix presented the greatest level of granularity.

In the case of Generali, it disclosed the following items in its movement analysis which we have categorised as operational impacts: normalised own funds generation (split between Life, Non-Life, and Holdings & Financials), operating non-economic variances, and other non-economic variances. The total amount of normalised Own Funds generation meant that in aggregate operational impacts provided a positive contribution in Generali's movement of Own Funds during 2020.

For Phoenix, this category comprises: demographic experience variances (including changes to assumptions), movement in RM and Transitional Measure on Technical Provisions (**TMTP**), and non-life earnings. The majority of these components led to a negative contribution, leading to a negative contribution in aggregate to the movement of Own Funds.

The majority of firms in our sample, disclosed a positive contribution to Own Funds as a result of operational impacts, however it was negative for a handful of firms. Overall 'Operational impacts' contributed a 5.7% increase in Own Funds over 2020.

New business

This category reflects the impact on Own Funds of writing new business over 2020.

As discussed in Section 3 of this report, the COVID-19 pandemic led to many firms reporting a reduction in new business volumes, although the impact varied across territories and across product types. However, for all firms considered in Figure 14, this category provided a positive contribution to Own Funds.

A number of firms in our sample reported new business included as part of a wider item in its movement in Own Funds. Where the firm also separately disclosed its value of new business, we have deducted this amount from the relevant item (typically 'Operating Impacts') in our analysis in order to more accurately reflect the firm's contribution in Figure 14.

Overall 'New business' contributed a 1.3% increase in Own Funds over 2020 from the opening position.

Management actions

A number of companies in our sample provided detailed disclosures around specific management actions taken during 2020.

Allianz disclosed that it adopted risk-mitigating measures including, but not limited to:

- Employing equity de-risking

¹⁰ Considering the impact of each of these components (in isolation) on Own Funds: the impact of the unwinding of the UFR / UFR drag and the impact of run-off of the Solvency II transitionals would be expected to reduce Own Funds; the release of the RM would be expected to increase Own Funds; and, changes to operating / non-economic assumptions and operating / non-economic experience variances could serve to either increase or reduce Own Funds.

- Adopting duration management measures – in this instance, increasing asset duration in order to help improve the interest rate risk profile of the company given the decline in interest rates in 2020
- Purchasing credit default swap protection to dampen the impacts of COVID-19.

Other management actions which Allianz reported adopting during 2020 included:

- Steering new business towards capital efficient products
- Reducing the average guarantees in its new traditional business to 0.06%, which has resulted in a reduction of the average guarantees of its in-force from 1.93% in 2019 to 1.85% in 2020
- Introducing products with less dependency on market interest rates, with a view to reducing interest rate sensitivity
- Increasing pricing agility
- Improving asset and liability management (**ALM**).

It is likely that the impact of some of these items may be reflected elsewhere in the analysis e.g. new business, rather than under this category.

Generali disclosed that it implemented a number of capital management actions during the year, from which arose an overall positive impact to its 2020 result, including:

- Lengthening its asset portfolio duration with the aim of further improving cashflow matching and reducing the duration gap between assets and liabilities
- Implementing hedging strategies
- Employing equity de-risking.

Phoenix Group implemented a number of management actions in 2020 in order to provide resilience against unanticipated market movements. Specifically, it disclosed that it undertook:

- Asset restructuring
- Undertook origination activity to source illiquid assets which delivered a closer matching of cashflows for its annuity business
- Block trade of assets: exchanging large blocks of BBB-rated GBP assets for A-rated USD assets
- Restructuring activities across the Group to achieve capital and/or expense savings e.g. portfolio transfer via Part VII to ReAssure, novation of equity hedge into ReAssure
- Adopting amendments to ReAssure TMTP methodology to achieve synergy
- Other actions such as: actively managing its balance sheet and achieving operational efficiency.

Market impacts

In the suggested 'ideal' breakdown of capital generation metrics, the following components could be included under 'Market impacts':

- Expected real-world return on assets in excess of the BEL
- Expected real-world spread on assets backing the BEL (including the impact on the BEL)
- Changes to non-operating/economic assumptions, including the impact of any changes to Solvency II parameters provided by the EIOPA such as the UFR or VA
- Non-operating / economic experience variances.

Ideally, the breakdown in the movement in Own Funds would allow users to separate the impact of 'normal/expected' market movements – e.g. expected level of real-world returns – from exceptional ones and other economic assumption changes. The majority of firms in our sample disclosed market impacts aggregated under one item, except for AXA and Swiss Re.

In the case of AXA, it split out market impacts between: economic variance and exchange rate impact, whereas for Swiss Re, it broke down this component of the analysis into: economic earnings and 'interest rate, volatilities and FX impact'.

As discussed in Section 3, the majority of firms observed a negative impact on their Own Funds over 2020 owing to market movements over the year mainly resulting from the COVID-19 pandemic. However, a few firms did

disclose a positive contribution arising from market impacts over 2020. Overall 'Market impacts' contributed a 4.0% decrease in Own Funds over 2020.

Other miscellaneous items

In our categorisation this includes such items as: tax, holding company expenses, pension scheme impacts, merger and acquisition activity, and portfolio and business transfers.

For example, Munich Re, Achmea, and NN Group all disclosed an item in their movement analysis of Own Funds over 2020 in respect of a change in eligibility restrictions which served to reduce Own Funds at year-end 2020. This is not really a source of capital generation itself and more an adjustment to the level of Own Funds that can be recognised for solvency purposes.

Phoenix disclosed the greatest level of granularity in respect of items included in this category. Specifically, for Phoenix this category comprises: the acquisition of ReAssure Group as at 22 July 2020, cash consideration for acquisition of the ReAssure businesses, with-profit estate distribution, change in Group Own Funds restrictions and impact of other Group adjustments, and pension scheme movements. Whilst the pension scheme movements served to reduce Own Funds, the acquisition of ReAssure Group served to increase Own Funds such that, in aggregate, this category provided a positive contribution in Phoenix's movement of Own Funds during 2020.

Capital management

In our categorisation this includes capital management actions such as the issuance and repayment of debt, share buy-backs and payment of dividends, as well as the payment of financing costs (such as interest on outstanding debt).

For example, for AXA this category comprises: the release of a provision for an exceptional distribution of reserves¹¹, the dividend to be paid in the next year, and 'subordinated debts and others'. Whilst the last two items served to reduce Own Funds, the release of the provision served to increase Own Funds. However, in aggregate, this category provided a negative contribution in AXA's movement of Own Funds during 2020.

For SCOR, this category comprises a number of factors disclosed by the firm including: debt costs, the release of provision for fiscal year 2019 dividend (as discussed in Figure 7 in Section 3), the issuance and recall of debt (which led to an overall positive contribution), and its normal 12-month accrual of a dividend in respect of 2020. Similar to AXA, there are offsetting effects between these items, but in aggregate this category provided a positive contribution in SCOR's movement of Own Funds during 2020.

Overall, we note that a number of firms did issue new debt over the course of 2020, which would (all else being equal) lead to an increase in their Solvency ratios.

We considered the disclosures made by firms in our sample specifically in relation to dividends over 2020 in Figure 7 in Section 3.

¹¹ On 2 June 2020, AXA decided to reduce its dividend proposal (as discussed in Figure 7 in Section 3). At that time, it was also announced that the Board would consider proposing an additional payment to shareholders in 4Q 2020, as an exceptional distribution of reserves, subject to favourable market and regulatory conditions. Following discussions with the French regulator (ACPR) and, in the context of COVID-19, AXA decided it would not propose an exceptional distribution of reserves to shareholders in 4Q 2020. The provision was therefore released from Eligible Own Funds.

5. Transactions

In the 2020 Shareholder Value Report, we noted that the publication of the metric 'Price/Solvency II Own Funds' is becoming more commonly quoted for European insurance deals.

Figure 15 shows the Price/Solvency II Own Funds for insurance deals in Europe since the implementation of Solvency II in 2016, where either the ratio was publicly disclosed, or we have been able to calculate it from publicly available information. Figure 15 represents an update to the equivalent table in our report from last year, and now includes transactions which have been announced up to the end of September 2021, where at least one of the firms involved is based in the following selection of 12 European countries: Belgium, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Poland, Romania, Spain, Switzerland and the UK.

In the absence of exact information, we have approximated Solvency II Own Funds using the amount disclosed in the annual SFCR closest to the transaction announcement date.

FIGURE 15: PRICE TO OWN FUNDS RATIO FOR EUROPEAN DEALS 2016–2021

COUNTRY – TARGET FIRM	TARGET FIRM	BUYER	TARGET OPEN TO NEW BUSINESS?	ANNOUNCEMENT DATE	OBSERVED PRICE	PRICE / OWN FUNDS
RATIO CALCULATED						
UK	Sanlam Life and Pensions UK Limited	Chesnara plc	No	Sep 2021	£39m	0.67 ^{Note 1}
Ireland	Ark Life Assurance Company Dac	Irish Life Group Limited	No	Jul 2021	€230m	0.91
Poland/Greece	Businesses in Poland and Greece	NN Group N.V.	Yes	Jun 2021	\$738	1.37
Italy	Società Cattolica di Assicurazione - Società Cooperativa	Assicurazioni Generali S.p.A.	See Note 2	May 2021	€987.18m	0.56
Italy	Lombarda Vita S.p.A.	Intesa Sanpaolo S.p.A.	See Note 2	Apr 2021	€219.8m	0.44
UK	Quilter International Limited	Utmost Group of Companies	Yes	Apr 2021	£483m	0.84
Poland	Aviva Poland business	Allianz SE	Yes	Mar 2021	€2,743m	2.33
Italy	Life insurance business (of Aviva plc)	CNP Assurances SA	Yes	Mar 2021	€543m	0.65
France	AVIVA France SA	Aéma Groupe	Yes	Feb 2021	€3,200m	0.76
Spain	Grupo Iguatorial Cantabria	AXA Seguros e Inversiones SA	Yes	Dec 2020	€48.3m	1.37
Italy	Vera Vita S.p.A.	Banco BPM S.p.A.	See Note 2	Dec 2020	€375.9m	0.79
UK	Liverpool Victoria Life Co., Ltd.	Bain Capital Credit, LP	Yes	Dec 2020	£530m	0.55
Italy	Aviva Vita SpA	Unione di Banche Italiane SpA	See Note 2	Nov 2020	€453m	0.80 ^{Note 3}
UK	Pension Insurance Corporation Group Limited	Reinet Fund Manager SA	No	Nov 2020	£119m	0.61
UK	Pension Insurance Corporation Group Limited	Investor Group	No	Sep 2020	£174.9m	0.61
UK	Rothsay Life plc (36% stake)	Investor group at GIC Pte. Ltd. and Massachusetts Mutual Life Insurance Company	Yes	Sep 2020	£2,100m	0.95
Poland/Czech Republic/Slovakia	AXA's operations in Central and Eastern Europe	UNIQA Insurance Group AG	Yes	Feb 2020	€1,002m	1.63

COUNTRY – TARGET FIRM	TARGET FIRM	BUYER	TARGET OPEN TO NEW BUSINESS?	ANNOUNCEMENT DATE	OBSERVED PRICE	PRICE / OWN FUNDS
RATIO CALCULATED						
UK	Quilter UK Heritage book	ReAssure	No	Aug 2019	£425m	1.10
Ireland	AXA Life Europe	Cinven	No	Aug 2018 ^{Note 4}	€925m	0.81
UK	ReAssure (10% stake)	MS&AD	No	Jan 2018	£315m	0.85
Denmark	Nordea Liv & Pension, Livsforsikringselskab A/S (45% share)	Norliv	Yes	Dec 2017	DKK 3.52 bn	0.56
Ireland	Generali PanEurope DAC	Utmost Ltd	Yes	Dec 2017	€286m	1.01
Italy	Popolare Vita SpA (50% stake)	Banco BPM SpA	Yes	Nov 2017	€535.5m	2.17
Ireland	Friends First Life Assurance Company Ltd	Aviva Ireland Ltd	Yes	Nov 2017	€146m	0.58
Ireland	AEGON Ireland plc	AGER Bermuda Holding Ltd	No	Aug 2017	€195m	0.81
Ireland	Laguna Life DAC	Monument Assurance DAC	No	Aug 2017	€25.6m	0.67
France	Antarius S.A. (remaining 50% stake)	Sogecap SA	Yes	Feb 2017	€500m	1.15
Denmark	Nordea Liv & Pension, Livsforsikringselskab A/S (25% share)	Foreningen NLP	Yes	Nov 2016	DKK 2.16 bn	0.62
Ireland	Union Heritage Life	Harcourt Life Assurance	No	Aug 2016	€3m	0.58
Italy	Old Mutual Wealth Italy SpA	Phlavia Investimenti S.r.l.	Yes	Aug 2016	€278m	1.16
RATIO DISCLOSED						
UK	Reassure Group	Phoenix	No	Dec 2019	£3,200m	0.91
UK	Standard Life Assurance	Phoenix	Yes	Feb 2018	£2,930m	0.84
UK	L&G (Heritage business)	ReAssure	No	Dec 2017	£650m	0.99
UK	Abbey Life Assurance	Phoenix	No	Sep 2016	£935m	0.89
UK	AXA Wealth Pensions	Phoenix	Yes	May 2016	£375m	0.85

Notes:

1. The calculated Price to Own Funds figure for this transaction uses an amount of £58.5m for Solvency II Own Funds, sourced from the 2020 SFCR of Sanlam UK Life & Pensions Limited (SLP). In Chesnara plc's Investor Presentation covering the acquisition of SLP, it states that the amount of £58.5m has been determined using SLP's internal assumptions, under which it has been assumed that SLP remains part of Sanlam UK Limited and writes new business. Revalued on a Chesnara basis of preparation, the Solvency II Own Funds of SLP as at 31 December 2020 is £39.4m. Using this revised amount, would give a calculated Price to Own Funds ratio of 0.99. Additionally, Chesnara has adjusted the amount of £39.4m to obtain the equivalent Economic Value (EcV) amount – Chesnara's own reporting value metric – by making adjustments for: Contract Boundaries, Risk Margin, Ring-fenced funds and Dividends. After these adjustments, Chesnara values the acquired business at £48.1m on an EcV basis, which represents an acquisition of SLP at a 19% discount to estimated EcV. Under this basis, the ratio is therefore 0.81.

2. We have been unable to source any information disclosed on whether the block of business was purchased with plans to close to new business or leave open to new business.

3. Upon its press release, this transaction was quoted as having a 1.0x ratio of Price to Solvency II Own Funds. During our analysis, we have been unable to match this ratio using the year-end 2020 reported for Solvency II Own Funds of the target firm, sourced from its SFCR. However, it is likely that this is due to the timing of the transaction – the announcement date was 23 November 2020, suggesting that half-year 2020 figures may have been used in the deal process. Due to the exceptional market movements over 2020 caused by the COVID-19 pandemic, the half-year 2020 figure for Solvency II Own Funds may have been lower, which would lead to a higher quoted ratio. We have used the ratio of 0.80, based on year-end 2020 data for the Solvency II Own Funds, in Figure 15 to ensure consistency with Figure 17.

4. This transaction was terminated in H2 2020.

ALTERNATIVE METRIC

We noted in the 2020 Shareholder Value Report that when some companies disclose the 'Price/Solvency II Own Funds' ratio, certain adjustments are made to the level of Solvency II Own Funds to make the comparison more meaningful, and cited a number of examples of this.

The need for these adjustments indicates that using the unadjusted value of Solvency II Own Funds to compare to the purchase price is not always appropriate. The need for such adjustments also means that the comparison between the 'Price/Solvency II Own Funds' in Figure 15 may not be entirely consistent between transactions.

Consequently, where possible, we have considered an alternative metric of the ratio of price to unrestricted Tier 1 capital (UT1) plus the net deferred tax asset¹² (DTA) (i.e. price / (UT1 + DTA)). As noted in the 2020 Shareholder Value Report, compared to the level of Solvency II Own Funds:

- Subordinated liabilities are removed
- Preference shares and share premium account are removed.

We note that the value of the DTA within a transaction can depend on the circumstances of the prospective buyer as it is contingent on the projected size and timing of future profits; however, in the absence of any further information, we have used the value of the DTA reported on the firm's balance sheet which can be considered a suitable initial estimate.

It has only been possible to calculate this adjusted ratio where the Own Funds used in the original ratio have been sourced from year-end SFCRs. This alternative metric leads to a revised table as shown in Figure 16. The rows in blue indicate the deals for which the alternative metric differs from the calculated Price to Own Funds ratio.

FIGURE 16: PRICE TO ADJUSTED OWN FUNDS RATIO FOR EUROPEAN DEALS 2016–2021

TARGET FIRM	BUYER	TARGET OPEN TO NEW BUSINESS?	OBSERVED PRICE	CALCULATED PRICE / OWN FUNDS	PRICE / ADJUSTED OWN FUNDS
ADJUSTMENTS HAVE BEEN MADE TO OWN FUNDS					
Sanlam Life and Pensions UK Limited	Chesnara plc	No	£39m	0.67	0.67
Ark Life Assurance Company Dac	Irish Life Group Limited	No	€230m	0.91	0.91
Businesses in Poland and Greece	NN Group N.V.	Yes	\$738	1.37	1.37
Società Cattolica di Assicurazione - Società Cooperativa	Assicurazioni Generali S.p.A.	See Note 1	€987.18m	0.56	0.76
Lombarda Vita S.p.A.	Intesa Sanpaolo S.p.A.	See Note 1	€219.8m	0.44	0.44
Quilter International Limited	Utmost Group of Companies	Yes	£483m	0.84	0.84
Aviva Poland business	Allianz SE	Yes	€2,743m	2.33	2.33
Life insurance business	CNP Assurances SA	Yes	€543m	0.65	0.69
AVIVA France SA	Aéma Groupe	Yes	€3,200m	0.76	0.82
Grupo Iguatorial Cantabria	AXA Seguros e Inversiones SA	Yes	€48.3m	1.37	1.37
Vera Vita S.p.A.	Banco BPM S.p.A.	See Note 1	€375.9m	0.79	0.93
Liverpool Victoria Life Co., Ltd.	Bain Capital Credit, LP	Yes	£530m	0.55	0.87
Aviva Vita SpA	Unione di Banche Italiane SpA	See Note 1	€453m	0.80	0.90
Pension Insurance Corporation Group Limited	Reinet Fund Manager SA	No	£119m	0.61	0.90

¹² Net Deferred Tax Assets means the value of deferred tax assets less the value of deferred tax liabilities.

TARGET FIRM	BUYER	TARGET OPEN TO NEW BUSINESS?	OBSERVED PRICE	CALCULATED PRICE / OWN FUNDS	PRICE / ADJUSTED OWN FUNDS
ADJUSTMENTS HAVE BEEN MADE TO OWN FUNDS					
Pension Insurance Corporation Group Limited	Investor Group	No	£174.9m	0.61	0.89
Rothsay Life plc (36% stake)	Investor group at GIC Pte. Ltd. and Massachusetts Mutual Life Insurance Company	Yes	£2,100m	0.95	1.36
AXA's operations in Central and Eastern Europe	UNIQA Insurance Group AG	Yes	€1,002m	1.63	1.66
Quilter UK Heritage book	ReAssure	No	£425m	1.10	1.10
AXA Life Europe	Cinven	No	€925m	0.81	0.87
ReAssure (10% stake)	MS&AD	No	£315m	0.85	0.85
Nordea Liv & Pension, Livsforsikringselskab A/S (45% share)	Norliv	Yes	DKK 3.52 bn	0.56	0.74
Generali PanEurope DAC	Utrmost Ltd	Yes	€286m	1.01	1.01
Popolare Vita SpA (50% stake)	Banco BPM SpA	Yes	€535.5m	2.17	2.17
Friends First Life Assurance Company Ltd	Aviva Ireland Ltd	Yes	€146m	0.58	0.58
AEGON Ireland plc	AGER Bermuda Holding Ltd	No	€195m	0.81	0.81
Laguna Life DAC	Monument Assurance DAC	No	€25.6m	0.67	0.67
Antarius S.A. (remaining 50% stake)	Sogecap SA	Yes	€500m	1.15	1.15
Nordea Liv & Pension, Livsforsikringselskab A/S (25% share)	Foreningen NLP	Yes	DKK 2.16 bn	0.62	0.81
Union Heritage Life	Harcourt Life Assurance	No	€3m	0.58	0.58
Old Mutual Wealth Italy SpA	Phlavia Investimenti S.r.l.	Yes	€278m	1.16	1.16
ADJUSTMENTS MADE TO OWN FUNDS BY FIRM					
Reassure Group	Phoenix	No	£3,200m	See Note 2	0.91
Standard Life Assurance	Phoenix	Yes	£2,930m	See Note 2	0.84
L&G (Heritage business)	ReAssure	No	£650m	See Note 2	0.99
Abbey Life Assurance	Phoenix	No	£935m	See Note 2	0.89
AXA Wealth Pensions	Phoenix	Yes	£375m	See Note 2	0.85

Notes:

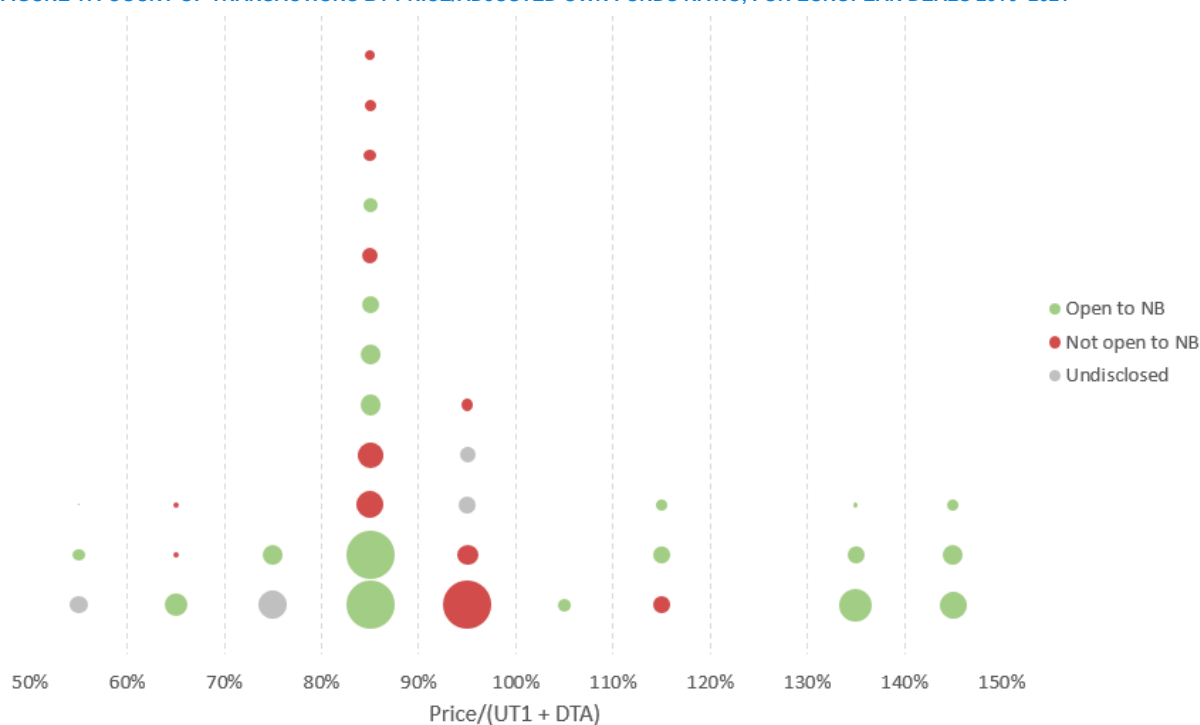
1. We have been unable to source any information disclosed on whether the block of business was purchased with plans to close to new business or leave open to new business.
2. The firm has stated some adjustments have been made to the Own Funds quoted as part of disclosures around these transactions.

Although this adjustment does not materially change the quoted ratios for half of the transactions included in Figure 16, we still believe that this is a more meaningful metric than 'Price/Solvency II Own Funds'.

Figure 17 shows the ratios for the transactions in Figure 16 grouped into 10% 'ranges'¹³. Furthermore:

- The colour of the dot indicates if the target block of business was open (green), closed (red) to new business, or its status in respect of being open to new business has not been disclosed (grey)
- The size of the dot indicates the size of the transactions as measured by the amount of the adjusted Solvency II Own Funds.

FIGURE 17: COUNT OF TRANSACTIONS BY PRICE/ADJUSTED OWN FUNDS RATIO, FOR EUROPEAN DEALS 2016–2021



Based on the information in Figure 17:

- Transaction prices in the range of 80% to 90% of Own Funds seem most common (12 out of 35).
- The majority of those deals with a ratio in excess of 1 involved blocks that were open to new business, which may reflect the value in respect of the potential future new business sales included in the price paid. Alternatively, a ratio in excess of 1 may reflect elements considered by a firm to be overly prudent within the calculation of Own Funds, such as in respect of contract boundaries.
- There was greater volatility in the percentage of Own Funds for smaller deals.

¹³ Note that at each end of the x-axis in Figure 17, the grouping is for example '>140%' rather than '140% to 150%' for ease of presentation.

6. Regulatory developments

In this section, we provide a brief summary of recent regulatory developments, focusing mainly on how they may shape shareholder value reporting going forward. More specifically, we consider:

- EIOPA's Solvency II 2020 review
- The UK Government, in particular HM Treasury (HMT), and the PRA, review of the current application of Solvency II in the UK, which includes the PRA's Quantitative Impact Study (QIS)¹⁴.

Lastly, we shall consider developments in IFRS reporting and International Capital Standards (ICS).

We note that these topics are more generally considered in other Milliman papers and shall indicate where this is the case.

Solvency II 2020 Review

In December 2020, EIOPA published its opinion on the Solvency II 2020 review. Milliman produced a briefing note summarising EIOPA's proposals, entitled 'EIOPA Opinion on the Solvency II 2020 review'¹⁵.

We note that firms domiciled in the UK will not be bound by the outcome of this review given the UK's withdrawal from the EU on 31 January 2020. However, UK-based firms which form part of an EU-based Group, will need to provide results on a Solvency II basis to the Group, and as such the outcome of this review will be relevant to such firms.

This followed several consultation papers produced by EIOPA in 2019 and impact assessments carried out during 2020.

- On 25 June 2019 EIOPA published a first wave of consultation papers on its proposals for the 2020 Review regarding supervisory reporting and public disclosure and insurance guarantee schemes.
- On 15 October 2019 EIOPA issued a second wave of consultation covering a wide range of areas including: Long-Term Guarantee and equity risk measures, the Technical Provisions, Own Funds, the SCR and MCR, macroprudential policy, and recovery and resolution planning.

The culmination of the above consultation phases and proposals from EIOPA to the European Commission (EC) is that on 22 September 2021, the EC announced its proposals to reform Solvency II. In many areas the Commission has followed the advice of EIOPA but the EC proposals do differ in a number of areas. The precise details of certain proposals from the EC were not presented in the papers released on 22 September 2021.

All Milliman briefing notes in respect of the Solvency II 2020 review can be found on our website¹⁶.

Three key areas worth noting, which are relevant to shareholder value reporting, are:

Technical Provisions changes

- Changes to the methodology for calculating the Risk Margin (RM)¹⁷, which are likely to reduce the size of the RM.

Whilst this potential reduction in RM may at initial glance look like a source of value at the time zero (i.e. when the change is implemented), in reality the RM would have been expected to unwind naturally over the duration of the business. Therefore, the revised approach introduces a change in timing of the gain (by bringing it forward) rather than being a true source of value and may lead to a slight increase to valuations under real-world valuation approaches via a reduction in the cost of capital in relation to RM.

Also, for firms which make use of the TMTP, the potential release in RM described above would be offset to some degree by the change in the TMTP amount.

¹⁴ We have produced a paper entitled 'The PRA QIS Exercise: What does it cover and what will it mean for firms?' which provides an overview of what is expected of firms to completing the QIS exercise, which can be found here: <https://uk.milliman.com/en-gb/insight/The-PRA-QIS-Exercise-What-does-it-cover-and-what-will-it-mean-for-firms>.

¹⁵ <https://www.milliman.com/-/media/milliman/pdfs/2021-articles/1-11-21-sii-2020-eiopa-opinion.ashx>

¹⁶ <https://www.milliman.com/en-gb/Insight/solvency-ii-2020-review>

¹⁷ In particular, the introduction of a risk tapering approach, which is likely to reduce the size of the RM; particularly of life insurers with long term liabilities such as annuity writers, as well as reduce its sensitivity to interest rate changes. The EC has also suggested it will consider reducing the cost of capital rate used in the calculation of the RM from 6% to 5% to reflect the lower interest rate environment amongst other beneficial changes to the calculation, meaning that the relative reduction to the RM will be greater than this (particularly so for life insurers with long term liabilities).

With reference to transaction pricing, and our earlier observation that transaction prices sitting within the range of 80% to 90% of Own Funds seem most common, it is likely that, all else being equal, if a reduction in RM is experienced this will lead to a downward shift in this range – since the transaction price (numerator) will be only impacted by the timing of the release of the revised RM but the Own Funds (denominator) will have increased by the whole value of the revised RM.

Interest rate changes

- A change to the extrapolation technique used for risk free rates, which will under standard parametrisation reduce the speed of convergence from the last liquid point (LLP)¹⁸ to the Ultimate Forward Rate (UFR). The EC has stated that this change should be phased in linearly over a transition period running until 2032, which will limit the immediate impact from this change.

This is likely to have a bigger impact on firms with greater EUR-denominated business due to the shorter LLP, given the difference between the market rates at the LLP and the UFR is significant for the Euro, with the value of the liabilities held by most European insurers expected to increase as a result of this change. A secondary impact is the UFR drag¹⁹ effect currently experienced by firms with a high proportion of EUR-denominated liabilities is expected to reduce – due to the risk free curve being closer to market rates – although it will still exist given the UFR itself remains in place.

The EC has stated that the phasing in of the new extrapolation method will be carried out by way of a parameter used in the derivation of the risk free rates that can impact the speed of convergence between market rates and the UFR. Although exact details on this methodology are at present unclear, under EIOPA's proposals such dynamics were made possible through the introduction of a 'speed of convergence' parameter – 'alpha'²⁰. The EC may intend to use this parameter to phase in the curves generated by the new extrapolation method over the duration of the transition period (i.e. by setting it to a value that recreates the current curve initially, and varying altering this value to move to an extrapolated curve that converges slower to the UFR by the end of 2032).

The inclusion of additional yield curve parameters and the phasing in of the changes will likely make movement analyses more complex, with more potential sources of variance. This may mean that a greater amount of expert judgement will need to be applied when determining how to categorise the drivers of movements in Own Funds.

All else being equal (and ignoring the phasing in), this change in Euro yield curve will increase the BEL and reduce Own Funds for business denominated in Euros. This should mean that Price to Own Funds ratios will increase as the UFR drag was likely already priced into deal prices²¹ (though there will be a slight timing effect) but the Own Funds (denominator) will have decreased. The phasing in of the change will likely mean any such impact will be gradually reflected in deal prices over the transition period.

- Revisions to the VA, which whilst making the calculation more complex are designed to prevent pro-cyclicality. In respect of solvency the revisions are expected, on aggregate, to provide a one-off favourable impact to Own Funds but equally there may be some winners and losers. Under real-world valuation approaches the impact is likely only be one of timing.

¹⁸ It should be noted that this terminology is set to change under the proposals and will be called the 'first smoothing point'.

¹⁹ UFR drag arises due to the extrapolation of the Solvency II risk free interest rate curve beyond the assumed LLP. It is therefore most relevant for currencies that have an LLP shorter than the duration of liabilities (such as the Euro where the LLP is assumed to be 20 years). The UFR is currently higher than the market implied swap rates, leading to the Solvency II risk free interest rate curve being relatively high at longer durations. In the case of the Euro, this is the case for durations in excess of 20 years. Each time the Solvency II risk free interest rate curve is determined the market implied part of the curve is updated and the extrapolation process is reapplied. This means that the updated Solvency II risk free interest typically ends up being lower at longer durations than would be the case if the previous interest rate curve was 'rolled-forward' in a market consistent fashion. Assuming liability outflows are being discounted, the use of the lower interest rate curve leads to a higher BEL with the increase being termed 'UFR drag'.

²⁰ We have produced a paper entitled 'Solvency II 2020 Review – EIOPA's final opinion' which summarises the effects of changes to the speed of convergence on the discount curve and the introduction of the speed of convergence drag, and can be found here: <https://www.milliman.com/en-GB/insight/solvency-ii-2020-review-eiopas-final-opinion>.

²¹ Note that the various Solvency II value metrics detailed in the 2020 Shareholder Value Report – 'UT1 + DTA'; S2AOF; S2EV*; S2AV*, S2EV* and S2AV* – do not allow for a UFR drag impact that is typically allowed for in M&A valuations.

In particular, the EC's proposed methodology for the calculation of the VA includes the introduction of a company specific credit spread factor that is designed to prevent over/under shooting²² of the VA. At present, the exact calculation of the company specific credit spread factor has not been published by the EC, however, those insurers who may be adversely impacted will be insurers that use the VA and have a large mismatch between the sensitivity of the firms' assets to changes in spreads and the sensitivity of the firm's liabilities to changes in interest rates. In such cases the change in the methodology for calculating the VA could in fact result in an increase in Technical Provisions and SCR.

Capital changes

- A change in the methodology for calculating the interest rate up and down curves used for SF firms to determine the interest rate risk sub-module of the SCR. The precise change that will be proposed by the EC has not yet been published, but the EC has stated it will consider reflecting EIOPA's advice in this area (with some adjustment). The impact of EIOPA's proposal was expected to lead to movements, especially on the rates down stress which allow for negative rates of up to -1.25%.

All else being equal, an increase in the level of interest rate risk capital will increase the cost of capital on real-world based valuation metrics and hence decrease the valuation metrics and Price to Own Funds ratios.

- An increase to the symmetric adjustment to +/-17% (from +/- 10%) used within the calculation of the equity risk sub-module of the SF SCR. All else being equal, if this leads to a change in the level of capital held by firms it will lead to changes in valuation prices under real-world approaches via the cost of capital component.

This will only have an impact on firms with equity asset holdings, and will have a more material impact on firms with higher levels of equity risk. Given the widening of the range of the adjustment, the impact on the amount of capital held in respect of equity risk could be greater or lower as a result of this change.

As mentioned above, the EC has, in many areas, followed the advice of EIOPA but is providing more short-term capital relief than the suite of changes proposed by EIOPA which were not aimed at reducing solvency across the European insurance industry, but rather leaving it broadly unchanged. Regardless, it is likely that there will be variation experienced by individual firms within the industry such that there will be winners and losers as a result of the Solvency II 2020 review.

The precise details of certain proposals from the EC were not presented in the papers released on 22 September 2021; however, we note that changes are not expected to be implemented before 2024 and as mentioned some changes may be phased in e.g. the extrapolation change for risk free rates.

HMT REVIEW

Following the end of the Brexit transition period, the PRA now has full authority to make changes to the insurance regulatory regime in the UK.

Consequently, the UK Government (in particular HMT) and the PRA, have started to review the current application of Solvency II in the UK with a view to making amendments to the regulatory environment in order to tailor it to the UK insurance market. The first such change has already been made, in relation to the risk free discount rate, and it is likely further, subsequent amendments will continue to arise as HMT and the PRA progress with their review and related initiatives.

Part of HMT's review includes a Call for Evidence which is to be accompanied by firms' associated responses. The Call for Evidence focused on 10 major areas, which are discussed in more detail in a recent paper Milliman published entitled, 'The UK Review of Solvency II: Considerations for the future regulatory landscape in the UK'²³.

Two key areas that are under review by the HMT which we believe will impact shareholder value metrics are:

- The RM
- The MA.

We shall briefly consider each of these in turn with respect to shareholder value reporting.

²² This is where asset movements from spreads are greater / less than the change in the BEL from the change in the VA (that is supposed to offset the asset spread movements).

²³ <https://uk.milliman.com/en-GB/insight/the-uk-review-of-solvency-ii-considerations-for-the-future-regulatory-landscape-in-the-uk>

The RM

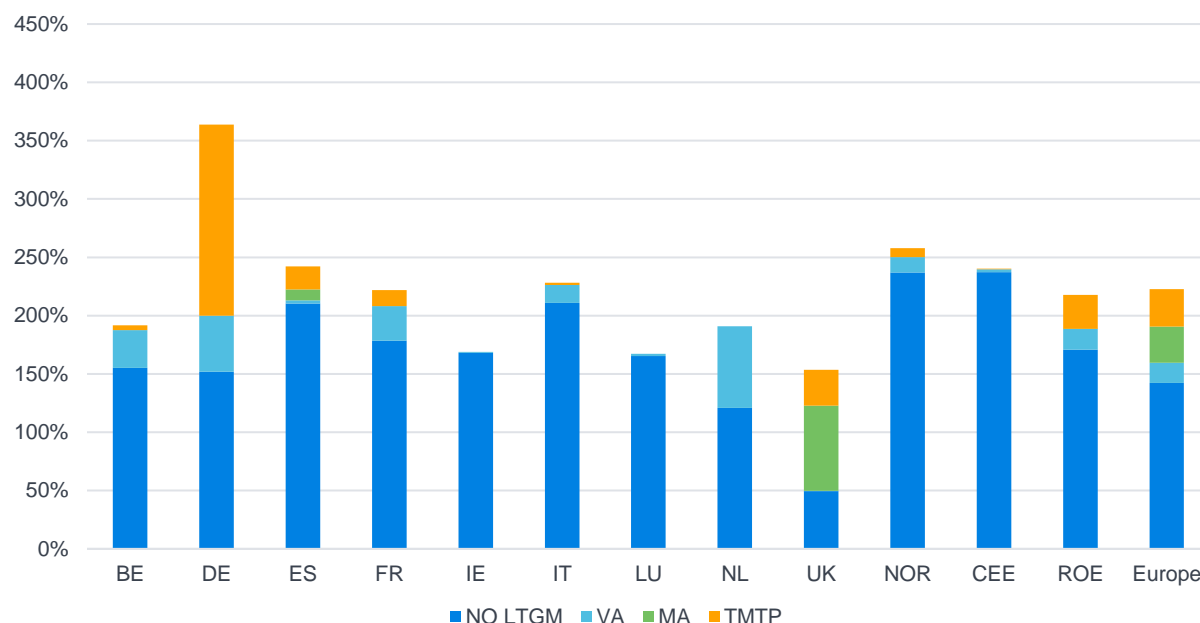
The responses to the Call for Evidence presented a number of alternative methods to reform the RM which may lead to a reduction in the range of 20% to 75%. For more details around the methodologies proposed, please see our paper²⁴.

As mentioned under the EIOPA Solvency II Review section above, any potential reduction in the RM as a result an alternative approach being proposed/adopted may lead to a change in the cost of the RM i.e. have a timing effect but will not in itself be a true source of value.

The MA

Across Europe, the use of the MA is mostly concentrated in firms domiciled in the UK and Spain, as shown in Figure 18.

FIGURE 18: SOLVENCY COVERAGE RATIO BY LONG-TERM GUARANTEE MEASURE (LTGM), AS AT YEAR-END 2020



Source: <https://solvencyiiwiredata.com>

Notes:

1. The height of each bar is the Solvency Coverage Ratio of the consolidated market so is weighted towards larger firms.
2. Where: Belgium (BE), Germany (DE), Spain (ES), France (FR), Ireland (IE), Italy (IT), Luxembourg (LU), Netherlands (NL), United Kingdom (UK), Nordic Countries (NOR), Central and Eastern Europe (CEE) and Rest of Europe (ROE).

Therefore, whilst the MA may not be a key element of the EIOPA Solvency II 2020 Review, the PRA's review presents an opportunity to amend the current regulation and tailor this important long-term guarantee measure to the UK insurance market.

However, the MA remains an area of divergence of opinion across UK insurers. The responses to the Call for Evidence identified that while some support the principles of the MA, highlighting that it helps to reduce procyclicality, others are against it (stating that it is imprudent and has no clear economic rationale).

Given the differing views of respondents to the rationale for it, the assets it should apply to, and the calculation of the MA benefit itself, it remains unclear what amendments the PRA may propose in respect of the MA, and whether these changes will essentially only have a timing effect or will more fundamentally alter market participants' views of the MA in general.

²⁴ <https://uk.milliman.com/en-gb/insight/The-PRA-QIS-Exercise-What-does-it-cover-and-what-will-it-mean-for-firms>

These amendments may have knock effects in deal pricing. Under an M&A, buyers typically have their own view on the return (and associated risk) on assets in an MA portfolio. To the extent that this differs from the current regulatory view (which in many cases is more prudent than a firm's own view) then this reflects solely a timing effect which can be captured in the deal price. Larger impacts on deal pricing on business affected by the MA may occur if any changes implemented by the PRA also impact the level of return assumed by buyers on assets backing MA-eligible business in a transaction process.

At present there remains much uncertainty over what the future UK insurance regulatory landscape will look like, and the impact any changes may have on UK insurers. In July 2021, the PRA launched a QIS to explore a number of scenarios relating to the calibration/calculation of the RM and MA.

In oral evidence on the work of the PRA²⁵, Sam Woods (Deputy Governor with responsibility for prudential regulation, Bank of England, and Chief Executive Officer, PRA), stated on 23 June 2021 to the Treasury Select Committee that:

It is not an objective of this review, neither of ours nor of the Treasury's, to boost the profitability of insurance companies..... We have said repeatedly that we do not want there to be a significant reduction in policyholder protection or release of capital to shareholders off the back of this review, and that is what we will aim to achieve. That is the PRA view, and it is also my view personally.

A week before this, in a speech given by Anna Sweeney (Executive Director at the PRA), she stated:

Now, it's our view that in the round, the current regime provides about the right amount of protection for policyholders. We do not pursue a zero failure regime and we don't have aspirations to further strengthen this protection as part of the Solvency II review.

On 22 September 2021, Gareth Truran gave a speech on 'Solvency II Review: Unlocking the potential', whereby he stated:

We are seeking to achieve a reform package which supports sustainable investment for the long term, while maintaining the long term resilience of the sector.

Therefore, when taken together, similar to EIOPA it is likely that, on balance, the suite of proposed amendments made by HMT and the PRA will look to leave the UK insurance industry broadly unchanged. However, it is likely that the impact, of any changes brought in by the review, experienced by firms within the industry at an individual level will vary.

IFRS

In the 2018 Shareholder Value Report²⁶, we briefly touched on the International Accounting Standards Board's (IASB) new standard on accounting for insurance contracts IFRS 17 which it published in May 2017. Since that time, the implementation date of the Standard has moved back another year and now, subject to EU/UK endorsement, IFRS 17 will apply for accounting periods starting on or after 1 January 2023. In practice, however, entities are required to provide a prior year of comparative figures.

Whilst there is still ongoing development in some areas of the regime and most companies' implementation projects are well underway, we understand that there are still some firms across the EU and UK markets which still have a number of aspects of their approach under consideration, transition details being one of these. The COVID-19 pandemic may still be having some adverse effect on firms' IFRS 17 implementation plans given potentially understaffing issues, additional costs and employee fatigue in an environment where firms face many conflicting urgent priorities.

In terms of IFRS 17 providing a further market consistent measure of the value of insurance contracts, one approach gaining traction across the industry is to take the IFRS balance sheet and remove the contractual service margin (CSM) – which represents the unearned profit that a firm expects to earn as it services the contract – to provide a high-level estimate of shareholder value. More detail, as well as a comparison of the IFRS 17 balance sheet with MCEV and Solvency II equivalents, is provided in the 2017 Shareholder Value Report²⁷.

²⁵ <https://committees.parliament.uk/oralevidence/2433/pdf/>

²⁶ <https://uk.milliman.com/en-GB/insight/shareholder-value-reporting-in-europe-year-end-2018>

²⁷ <https://uk.milliman.com/en-GB/insight/shareholder-value-reporting-in-europe-year-end-2017>

Whilst other potential adjustments could be made to the IFRS balance sheet to obtain a shareholder view of value, this approach should be relatively straightforward to calculate not just at a firm level, but also to apply to datasets which cover the wider insurance market in order to obtain a broad comparative measure between firms.

Once the CSM has been removed, the liabilities side of the IFRS 17 balance sheet essentially comprises a best estimate and a risk adjustment, akin to the BEL and RM under Solvency II. Whilst there are differences in the calculations of these between IFRS 17 and Solvency II, the similarity of approach drives a clear desire for comparison and explanation. It is likely analysts would explore and question the difference between these two metrics and hence firms may like to get ahead of this question by disclosing a reconciliation between the two metrics as part of their annual reporting. It is likely that thinking may further develop in this area, as firms get closer to full readiness, before an industry consensus is reached.

More generally, we understand that a current challenge facing analysts is having a good understanding of how IFRS 17 will impact firms' results and how this may vary depending on the type of company/business written. In comparison, in the run up to the implementation of Solvency II at the 'same' point in time (i.e. before the effective date) more information had been disclosed by firms across Europe and how the new reporting regime would likely impact their results. This may be because whilst our understanding is that generally good progress is being made by firms in response to IFRS 17, the European/UK insurance industries, as a whole, are not yet in a position of full readiness for implementation in January 2023, and further material work still needs to be done. Additionally, for many firms the complexity of the calculations required to report under IFRS 17 may have hampered industry efforts in this regard. However, this issue means that analysts are facing a greater level of uncertainty when currently advising their clients, compared with the run up to Solvency II implementation.

ICS

The International Association of Insurance Supervisors (**IAIS**) has developed a risk-based global ICS. The IAIS expects that ICS will apply to the approximately 100 Internationally Active Insurance Groups (**IAIGs**).

An IAIG is defined as an insurance group where:

- The group's premiums are written in at least three different jurisdictions and the gross written premiums outside of its home jurisdiction are at least 10% of the group's total gross written premiums
- The group's total assets are at least \$50 billion or gross written premiums are at least \$10 billion (on a rolling three year average basis).

In 2019, the IAIS undertook further quantitative field testing which was the first testing of the revised standard, ICS Version 2.0, consulted on in 2018.

ICS Version 2.0 has a five-year monitoring period, which started in January 2020. During the monitoring period, ICS Version 2.0 will not trigger any supervisory action but will be used for confidential reporting and discussion in supervisory colleges to provide feedback to the IAIS on the ICS design and performance. The IAIS is also undertaking further data collection in 2021.

In 2021, Mapfre became the first firm to disclose publically its ICS results. According to the 2019 ICS model (ICS 2.0), Mapfre's solvency ratio would have been 228.6% at the end of 2019, compared to 186.8% which Mapfre reported under the SF Solvency II model.

A number of countries are considering, or have committed, to adopting ICS. For example, Taiwan is set to implement ICS in 2026, and the Financial Supervisory Commission (the local regulator) has already highlighted that ICS will be stricter than the current risk based capital calculations.

The year 2021 has been the first time we have observed ICS numbers being published and witnessed some countries committing towards its adoption in a few years. It is likely that within the next couple of years, probably not in significant numbers until after the implementation of IFRS 17, that financial analysts will start asking questions on firms' ICS positions and transactions will start including ICS as one of buyers' and sellers' considerations.

The key differences between ICS and Solvency II are in respect of the following areas:

- **Risk margin:** This is calculated using a Margin on Current Estimate (**MOCE**) approach under ICS. We note that one part of the PRA's QIS asks firms to calculate their RM using a similar MOCE approach under one scenario.
- **Capital requirement:** For example, there are a number of differences in the stresses applied in the derivation of the capital requirement under ICS – e.g. mortality and longevity stresses – when compared with Solvency II, as well as the calculation approach adopted e.g. the calculation of the interest rate risk and spread risk components of the capital requirement.
- **Discounting:** We note the ICS risk free curve remains LIBOR based (for now).
- **Matching Adjustment:** Under ICS a bucket approach is used.

If firms elect to determine their value metrics using an approach more closely aligned to ICS in future, it is likely that the ICS balance sheet may be adopted as the basis for transactions going forward.



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milliman.com

CONTACT

Sam Burgess
samuel.burgess@milliman.com

Stuart Reynolds
stuart.reynolds@milliman.com

Lyndsay Wrobel
lyndsay.wrobel@milliman.com

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