The Fiscal Compact, the Economic Environment & Solvency II: Possible Implications for Life and General Insurance Companies

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Introduction

In this short paper we: (i) set out, largely in qualitative terms, possible effects of the TREATY ON STABILITY, COORDINATION AND GOVERNANCE IN THE ECONOMIC AND MONETARY UNION (the "Fiscal Compact") on the Eurozone economy; (ii) examine what we believe are important aspects of the current economic environment; (iii) look at some possible implications of Solvency II and why the actuarial profession has a very important role to play in its implementation; and (iv) conclude by setting out what we believe may be the impact of these three factors on (a) the life assurance industry; and (b) the general insurance industry.

Fiscal Compact

The European Union ("EU") has proposed a Fiscal Compact that requires (Article 3(2) of the Fiscal Compact) signatory countries to, among other things, enshrine certain key rules in national law namely:

- (i) the general government budget position must be balanced or in surplus; this requirement will be regarded as having been met if the structural deficit is not more than 0.5% of GDP;
- (ii) ensure rapid convergence towards the balanced budget;
- (iii) an automatic correction mechanism in the event of deviation from the objective or the plan to get to the objective, including an obligation to implement measures to correct the deviations over time; and
- (iv) define the role of the independent institutions responsible at national level for monitoring compliance with the Fiscal Treaty.

There may be penalties in the form of fines imposed by the Court of Justice of the European Union on signatory countries that fail to honour their commitments under the Fiscal Compact.

In terms of a benefit from signing up to the Fiscal Compact, only those signatory states that sign up for the Fiscal Compact will have access to the EU's new permanent bailout fund, the European Stability Mechanism ("ESM").

Before proceeding it might be useful to define what we mean by the 'general government deficit' and the 'structural deficit'. The general government deficit is, broadly speaking, the amount by which government spending exceeds its income in a one-year period while the structural deficit is the general government deficit adjusted for once-off spending (e.g. spending to recapitalise a country's banks), temporary additional revenue (e.g. a windfall tax revenues) and the effects of slower or faster growth in the economy.

Existing EU treaties require Eurozone Member States to: (i) limit the annual, general government deficit to 3.0% of GDP; and (ii) take action when their general government debt exceeds the 60 % reference value to reduce it at an average rate of one twentieth per year as a benchmark.

The Fiscal Compact will limit the ability of signatory countries to run counter-cyclical policies that might be consistent with moderate debt-to-GDP ratios.

As some signature countries are likely to be Eurozone members, the terms of the Fiscal Compact represent, at first sight, a further straight jacket for such countries in managing their economies because they have already ceded control over their interest rate policy to the European Central Bank and, being part of the Eurozone, have no control over their exchange rate policy.

According to Eurostat, in 2011 the largest government deficits as a percentage of GDP were recorded in:

```
✓ Ireland (-13.1%)<sup>1</sup>;
✓ Greece (-9.1%);
✓ Spain (-8.5%);
✓ United Kingdom (-8.3%);
✓ Slovakia (-6.4%);
✓ Cyprus (-6.3%);
✓ Lithuania (-5.5%);
✓ France (-5.5%).
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We have used a negative sign in presenting the figures above to indicate an excess of government spending over government revenue.

The list identifies a number of very large economies in the EU, namely France, the United Kingdom and Spain, as countries with significant government deficits as a percentage of GDP. These three economies are respectively the 2nd, 4th and 5th largest economies in the EU.

Assuming France and Spain sign up for the Fiscal Compact, then the 2nd and 5th largest economies in the EU will be required to reduce their government deficits by 2.5% of GDP and 5.5% of GDP respectively just to meet the existing 3% of GDP limit not to mention the Fiscal Compact's requirement for a balanced budget. Given that any significant GDP growth is unlikely, we can expect quite a deflationary spiral to arise from the synchronised implementation of the Fiscal Compact across the Eurozone in the medium term.

Let us turn now to the Debt-to-GDP ratio limit in existing EU treaties. According to Eurostat, at the end of 2011, the countries with high Debt-to-GDP ratios included Greece (165.3%), Italy (120.1%), Ireland (108.2%), Portugal (107.8%), Belgium (98.0%), France (85.8%), United Kingdom (85.7%), Germany (81.2%), Hungary (80.6%), Austria (72.2%), Malta (72.0%), Cyprus (71.6%), Spain (68.5%) and the Netherlands (65.2%).

All of these countries have Debt-to-GDP ratios in excess of the 60% limit reiterated in the preamble to the Fiscal Treaty and already enshrined in existing EU treaties. Let us recall that Germany, France and Italy are in that order the first, second and third largest economies of Europe. Now consider the deflationary impact on the European economy if one tries to implement similar polices simultaneously across all the likely signatory countries to the Fiscal Compact.

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¹ According to the Department of Finance, the deficit excluding the "capital injections" into the banks was 9.4% of GDP for 2011. Source: http://www.finance.gov.ie/viewdoc.asp?DocID=7218&CatID=78&StartDate=1+January+2012

Wriggle Room in the Fiscal Compact

Perhaps we should not fear the Fiscal Compact's deflationary impact on the economy of the EU too much. There seems to be at least two areas for a little wriggle room.

Article 3

Firstly, Article 3(1)(b) of the Fiscal Compact states:

The time frame for such convergence ['balanced budget'] will be proposed by the Commission taking into consideration country-specific sustainability risks.

So the time allowed for each signatory country to reach a 'balanced budget' will be 'proposed' by the Commission. 'Proposed' is an interesting choice of word; words like 'determined' or 'set' were not used in the language of the Fiscal Compact. Also it seems as if there is room for each country to have its own country-specific time frame in which to reach a 'balanced budget'. If the Commission proposes a time frame and a signatory country does not like it, what happens then? Is there room for endless negotiation? There seems to be a little wriggle room here but perhaps somewhat limited if part of the solution is accessing funding from the ESM.

Article 8

The second article that caught our eye was Article 8 which states:

The European Commission is invited to present in due time to the Contracting Parties a report on the provisions adopted by each of them in compliance with Article 3(2). If the European Commission, after having given the Contracting Party concerned the opportunity to submit its observations, concludes in its report that a Contracting Party has failed to comply with Article 3(2), the matter will be brought to the Court of Justice of the European Union by one or more of the Contracting Parties. Where a Contracting Party considers, independently of the Commission's report, that another Contracting Party has failed to comply with Article 3(2), it may also bring the matter to the Court of Justice. In both cases, the judgment of the Court of Justice shall be binding on the parties in the procedure, which shall take the necessary measures to comply with the judgment within a period to be decided by the Court.

To start with, the European Commission is 'invited to' rather than **obliged to** present a report on the provisions adopted by each signatory country. That's interesting because if the European Commission were to be slow about taking up its invitation, then the current state of fiscal deficits, debt-to-GDP ratios and structural deficits might be allowed to drift over time if that were politically required.

The next sentence in Article 8 is most interesting. In essence it says:

If the European Commission ... concludes in its report that a Contracting Party has failed to comply with Article 3(2), the matter will be brought to the Court of Justice of the European Union by one or more of the Contracting Parties.

[Emphasis added]

It would appear that the European Commission, the non-political policeman of the rules within the EU, cannot bring a violation of Article 3(2) to the Court of Justice of the European Union.

Although Article 7 requires Eurozone Member States to "commit to support the proposals or recommendations submitted by the European Commission where it considers that a Member State of the European Union whose currency is the euro is in breach of the deficit criterion in the framework of an excessive deficit procedure," only another signatory to the Fiscal Compact may take such an action. That is a very interesting feature of the Fiscal Compact. The history of the operation of the EU in relation to the Stability and Growth Pact will illuminate this point further.

If the European Commission fails to conclude that there has been a violation of Article 3(2), there is provision for a single signatory country of the Fiscal Compact to bring an action against the signature country which it believes is in breach of the Fiscal Compact to the Court of Justice of the European Union. Here is the text providing for that option:

Where a Contracting Party considers, independently of the Commission's report, that another Contracting Party has failed to comply with Article 3 (2), it may also bring the matter to the Court of Justice.

"Exceptional Circumstances"

Signature countries may deviate from the Fiscal Compact's targets in case of 'exceptional circumstances'. The concept of 'exceptional circumstances' is widely defined encompassing once-off events and prolonged periods of economic hardship:

- (i) 'an unusual event outside the control' of a signature country 'which has a major impact on the financial position of the general government' or
- (ii) in 'periods of severe economic downturn'.

As of the end of April 2012, nearly every Member State of the EU could invoke the 'exceptional circumstances' clause of the Fiscal Compact while it waits for the ink making its signature to dry on the signature page of the treaty. So again there seems to be plenty of wriggle room to prevent an immediate deflationary debt reduction spiral across the Eurozone.

History – Stability & Growth Pact

Is the Fiscal Compact a case of déjà vu? Under the Stability and Growth Pact in the Maastricht Treaty, Eurozone members were obliged to keep their budget deficits below 3% of their GDP and the EU was allowed to punish governments that breached this limit by imposing fines on them.

How serious was the EU about enforcing this commitment?

According to a BBC Radio 4 podcast, Sir John Grant, Britain's Ambassador to the EU in November 2003, at a meeting in Brussels between the European Commission and the EU Finance Ministers in the shape of ECOFIN, there was not a qualified majority of EU Finance Ministers who voted to make public the failure of France and Germany to correct their excessive deficits which at the time were in excess of the 3% of GDP limit. A majority of the Finance Ministers at that meeting voted to let France and Germany 'off'.

In the same podcast, Dietrich von Kyaw, the former German Ambassador to the EU in the 1990s says:

They really sinned by doing something not very serious which was one of the consequences of German reunification and the enormous expenditures there. They flexiblised the schedules; primarily it was not a real sin but when a big country does that how can you afterwards impose on smaller countries, including Greece, to obey by the rules?

Peter Doukas, a former Greek Budget Minister, was also interviewed for the same podcast and said:

If the big boys won't adhere and impose discipline on themselves they are going to be more relaxed in terms of treaty. Nobody can impose sanctions on Germany which is a superpower by European standards and similarly to France so they don't adhere the pressure was simply not there.

Like the Stability and Growth Pact under the Maastricht Treaty, the punishment for breaching a limit in the Fiscal Compact is a fine. But no fine is even contemplated until a limit is breached.

We would argue that this is a flawed means of enforcement of the Fiscal Compact as it was for the Stability and Growth Pact. Fines make the offending country's 'overspend' even worse. We wonder about the answers to two questions:

- 1. Which of the signatory countries is going to take action which may ultimately make the 'overspend' worse?
- 2. Will there be a risk that no signatory country takes action against another signatory country simply because of reprisals in the long-term.

There is no provision in the Fiscal Compact for the European Commission or the other contracting states to take any action when it is highly probable that a country is likely to breach a limit. This may be because such a power might be an unacceptable transfer of sovereignty from EU Member States to the centre.

In the case of say, France, the second largest economy in the EU, currently running a budget deficit in excess of 3% of GDP, which of the signatory countries is likely to be the one to take France to the Court of Justice of the European Union?

History and the design of the Fiscal Compact suggest that there are significant monitoring and enforcement challenges in implementing the Fiscal Compact.

The EU is an unusual animal in that there is no political union yet there is a single monetary policy. The Fiscal Compact is likely to be accepted by voters on the basis that it is designed to reassure the German electorate that loans by Germany to 'periphery' Member States will be repaid principally because sound management of their public finances will be enshrined in their domestic law and that they submit to the European Court of Justice for breach of those laws.

If the Fiscal Compact is adopted by all the Member States in the Eurozone, then German politicians may be able to persuade their electorate to permit the issuing of EUR-denominated bonds guaranteed collectively the Eurozone Member States and to provide further capital to the European monetary fund.

Contemplating Counter-cyclical Polices

Why would anyone be even contemplating the adoption of counter-cyclical policies in the current climate? Let's look at current private sector savings to perhaps provide an answer to this question.

Economic Background

According to McKinsey, Ireland's total debt consisting of household, non-financial corporations, financial institutions and government debt was 663% of GDP at the end of Q2 2011.

This is the highest total debt of countries associated with the Eurozone crisis namely, Greece (267%), Italy (314%), Portugal (356%) and Spain (363%). To put those figures in context, the average for mature economies is 339%.

Breaking down Ireland's total debt figure and comparing, figures in brackets, the breakdown with the corresponding average of mature economies, households made up 124% (77%) of GDP, non-financial corporations 194% (82%) of GDP, financial institutions 259% (80%) of GDP and government debt 85% (100%) of GDP.

In many EU Member States, Ireland and Spain are cases in point, companies and consumers alike borrowed during the boom years in the run up to July 2007 to invest in assets. In the case of Ireland and Spain, those assets were often property investments. Now, following the collapse of the property markets in these countries, many consumers and companies have experienced a significant fall in the value of their assets but with no corresponding fall in the value of the liabilities, namely, the loans taken out to finance the purchase of those assets during the boom.

The majority of consumers and companies in the private sector in many EU member states are now saving; they are repaying loans in order to reduce their debt burden, even though interest rates are very close to zero. When interest rates are very close to zero one might expect that consumers and companies alike would find valuable investment opportunities which could be financed by loans at near-zero interest rates in the hope of significant future profits on such investments.

According to the Central Statistics Office ("CSO") March 2012 data on Irish residential property prices shows: (i) that residential property prices in Ireland are 49% below the peak recorded in September 2007; in the case of Dublin, residential property prices are 57% below the February 2007 peak; and (ii) that the annual rate of decline in residential property prices had increased for the seven consecutive months up to but excluding March 2012. Residential property prices have fallen 4.1% in the first quarter of 2012. We suspect the falls in property prices may be even greater as CSO price indices are based on mortgage transactions and do not pick up the full extent of property price declines when there is a high proportion of cash as opposed to mortgage financed sales of property.

While one could look on this positively as a significant improvement in the affordability of residential property, as we shall see later there is a contraction in bank lending limiting access to mortgages which might provide support against further falls in residential property prices in Ireland. Perversely, the contraction in bank lending for residential mortgages may be further increasing impairments on the mortgage books of banks.

For some consumers and companies, the excess of liabilities over assets represents doom not just for themselves but for the banks that lent to them as such consumers and companies do not have the cash flow to pay down the debt. However, for those consumers and companies with cash flow to pay down their debt, doing so may represent the best option to avoid bankruptcy which, at least in the case of companies, is the least attractive for all the parties involved.

The difficulty for an economy is when a majority of consumers and companies in an economy find that they have an excess of liabilities over assets with only their ongoing cash flow to save them from financial doom. According to the Irish Times of 3 March 2012, an estimated 40% of mortgaged homeowners in Ireland are in negative equity; interestingly, 93% of such borrowers are not in arrears.

Such consumers and companies are unlikely to wish to borrow further. There are unlikely to be many willing to lend to such consumers and companies so they start paying down their debt despite near-zero interest rates to reduce their liabilities below the new found value of their assets. Figures released by the Central Bank of Ireland² show that in the three months to the end of March 2012, the net monthly flow of loans to households averaged *minus* EUR404m while that to non-financial corporations averaged *minus* EUR227m.

According to the on-line magazine, Actuarial Post (13 April 2012)³,

Standard Life Investments highlights that one of the key features differentiating this business cycle from most of its predecessors has been the extent of the build up and then slow pay back of sizeable amounts of debt by the private and public sectors. As history has demonstrated, such a deleveraging process can take many years to unwind, during which time consumption, output and productivity tend to grow more slowly than normal. But seven years on from the 2005 peak of the US housing market, there are now signs that the worst of the US deleveraging is coming to an end, although conversely the situation remains difficult in Europe.

When the majority of consumers and companies are paying down debt their repayments wind up in banks and other lenders. If there are few consumers and companies interested in borrowing there will in all probability be a reduction in consumption expenditure and investment expenditure in the economy.

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² Source: Central Bank of Ireland: http://www.centralbank.ie/polstats/stats/cmab/Pages/Money%20and%20Banking.aspx 30/03/2012 Table A.1 Summary Irish Private Sector Credit and Deposits

³ Source: http://www.actuarialpost.co.uk/article/signs-of-improvement-2448.htm. Accessed on 13 April 2012.

Personal spending on goods and services in the Irish economy has fallen in 2008, 2009, 2010 and 2011 and looks set to fall again in 2012.

In the absence of any corrective measures, such as government spending or a massive increase in net exports, the GDP of the economy is likely to shrink quickly. During the Great Depression in the 1930s, the GDP of the US economy fell by something of the order of 45% between 1929 and 1933 partly as a result of a majority of consumers and companies paying down their debts.

In the absence of a corresponding surge in net exports (the excess of exports over imports), like it or not, unless the government borrows the savings or debt repayments of consumers and companies in such an economy and spends it, the GDP of the economy will fall rapidly over time.

Private Sector Savings & the Fiscal Compact

Let us consider some possible implications of the Fiscal Compact by looking at Ireland and Spain.

Recall that GDP, Y, is given by the formula: Y = C + I + G + (X - M), where C is private consumption, I is gross investment, G is government spending, X is exports and M is imports and (X-M) is therefore net exports. If, for example, the combination of C and I falls by say 5%, then GDP, Y, could only be maintained at its current level by government spending, G, increasing or net exports, (X-M), increasing or a combination of both.

Spain

Spain is the EU's 5th largest economy after Germany, France, United Kingdom and Italy. The excess savings of the private sector are running at around 5% of GDP. Despite the fact that interest rates are at an historic low point, Spain's private sector does not wish to borrow. It is paying down its debt to reduce the value of its liabilities to a level below that of its assets which are depressed largely by the collapse of Spain's property bubble.

Leaving aside the government sector for a moment, unless Spain were to experience a very sharp rise in its net exports, GDP will fall by 5%. A sharp rise in net exports looks unlikely; in Spain exports represent only 23% of GDP while imports represent 26% of GDP and world economic growth is slowing. The Spanish government could step in and borrow the private sector's surplus and spend it in the economy as a way of preventing GDP from falling.

Were Spain to sign up to the Fiscal Compact and be running a balance budget at that time, there would be an upper limit of 3% of GDP on the size of the general government's deficit. We are assuming here that a departure from the balanced budget would be permitted up to the level of the old 3%-Stability-and-Growth-Pact rule on the basis that such an event is an 'exceptional circumstance'. This limits the extent to which the Spanish government can step in and borrow the private sector's surplus and leaves GDP to fall by around 2% in this hypothetical example.

Ireland

The personal savings as a percentage of GDP for 2009 were over 6% of GDP; some commentators estimate that personal savings in 2011 were running at closer to 10% of GDP. Indeed the Central Bank's Quarterly Bulletin (Q2, 2012) notes that "The savings rate will remain elevated as households continue to pay down debt." Despite the fact that interest rates are at an historic low point, Ireland's private sector does not wish to borrow. It is paying down its debt to reduce the value of its liabilities to a level below that of its assets which are depressed largely by the collapse of the country's property bubble.

In Ireland, exports represent approximately 101% of GDP while imports represent 82% of GDP; Irish exports are in growth areas like software, chemicals and pharmaceuticals which are less sensitive to declines in global economic slowdown than the exports of many other countries.

Unlike Spain, Ireland has experienced a sharp rise in net exports which has partly offset the economic impact of the rise in private sector savings. Net exports have increased from 9% of GDP in 2008 to 19% of GDP in 2010.

According to the Central Statistics Office, personal savings as a percentage of GDP for 2009 were over 6% of GDP. If Ireland were to sign up to the Fiscal Compact and even if it were be running a balance budget at that time, there would be an upper limit of 3% of GDP on the size of the government's deficit in assuming it could get approval to depart from the balanced budget to spend some of the private sector surplus. This limits the extent to which the Irish government can step in and borrow the private sector's surplus and leaves GDP to fall by 3% in this hypothetical example.

We question whether any thought has been given to this type of problem by the architects of the Fiscal Compact.

Further, the fines to be imposed on countries in breach of the Fiscal Compact seem to simply exacerbate a recalcitrant country's debt and deficit problems serving only to increase the debt or deficit further.

According to McKinsey Global Institute January 2012 paper entitled "Debt and deleveraging: Uneven progress on the path to growth", the deleveraging or debt reduction episodes of Sweden and Finland in the 1990s after their banking crises proceeded in two phases: (i) several years of private sector debt reduction during which there is minimal growth or even recession and a rise in government debt; followed by (ii) a longer period of economic expansion and public sector deleveraging. If government spending in an economy cannot rise during phase (i) because it is constrained by the borrowing and deficit limits in the Fiscal Compact, the economy may be forced into even deeper recessions. Worse still, if the government is forced to raise taxes and cut government spending in phase (i), a very long period of recession may ensue in the absence of miracle growth in exports.

On the positive side for Ireland's economy, unit labour costs are falling, the current account balance of payment has changed from a deficit of -7.0% in September 2008 to a surplus of +0.5% of GDP in September 2011 and the primary fiscal deficit is

falling if we exclude the banking costs. Almost all of the GDP growth that the Irish economy has experienced has come from growth in net exports.

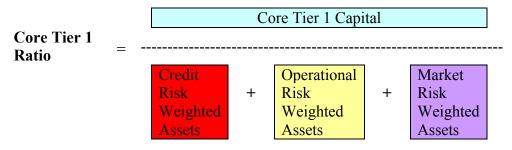
If the EU is likely to suffer a recession in 2012, Ireland's export growth is likely to be severely impacted as 40% of exports go to the EU (excluding the UK) and 15% go to the UK. With positive GDP growth expected in the US in 2012 and 15% of Irish exports going to the US, there would need to be quite a significant pick up in US exports to counter the likely slow down in the EU and UK exports.

Contraction in Lending by Banks

At the same time as debt repayment by a majority of consumers and companies is depressing consumer and investment expenditure in the Irish economy, bank lending to those consumers and companies that may wish to borrow for consumption or investment purposes is being constrained by a combination of de-leveraging by many banks in the Eurozone including Ireland and the European Banking Authority's more stringent capital requirements for certain banks.

The Bank of International Settlements proposes under Basel III that banks reach a core Tier 1 capital ratio of 7% by 2019.

A bank's core Tier 1 ratio is calculated as follows:



Source: Barclays Capital

For many European banks, Credit Risk Weighted Assets, in simple terms, loans made by banks, account for over 80%⁴ of all risk weighted assets.

A 7% core Tier 1 capital requirement is quite demanding especially in the light of the systemic banking crisis facing EU banks. So pushing the time to qualify out to 2019 at least gives a reasonable prospect of the new 7% core Tier 1 capital requirement being met.

Following the European Council and Euro area summit in Brussels on 26 October 2011⁵, certain EU banks were required to raise their Core Tier 1 capital ratio ("CT1 Ratio") to 9% of risk-weighted assets and do so by the earlier time of June 2012.

The European Banking Authority conducted a capital exercise in October 2011 as part of a broader European package to address the current sovereign debt crisis. The focus

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⁴ Source: Barclays Capital. "Saving Risk Weightings" 12 July 2011.

⁵ Main results of Euro Summit; Brussels, 26 October 2011.

of the capital exercise was to address market concerns over sovereign exposures. A total of 71⁶ banks across Europe (including the three main Irish banks) were assessed with the aim of ensuring that each had a minimum CT1 Ratio of 9% by June 2012. A total of 31 banks were identified as having a capital shortfall in this regard. All three Irish banks exceeded the 9% CT1 Ratio. The 9% floor only applies to these 71 banks, not all European banks.

To meet the 9% target, banks have a number of courses of action open to them including: (i) raise capital; (ii) reduce assets that are regulatory capital intensive; (iii) cut dividends and increase retained earnings; (iv) cut expenses; and (v) some combination of (i), (ii), (iii) and (iv).

In an attempt to meet the ratio, the banks affected by this rule have generally favoured course of action (ii), generally referred to as "de-leveraging", as opposed to the raising of additional capital. It is difficult for a large number of banks to raise fresh capital in the middle of a systemic banking crisis. As a result, the EBA are collecting information on de-leveraging plans across all 71 institutions. For the Irish banks, this de-leveraging process is already being managed as part of the Memorandum of Understanding with the Troika. National Supervisory Authorities such as the Central Bank of Ireland are involved in facilitating this data collection for the EBA.

Raising capital during the current systemic banking crisis in Europe is not easy. Where it is possible for a bank to raise capital during a systemic banking crisis, the capital raised is likely to be expensive because of the perceived risk of banks in a systemic banking crisis. In the long-term expensive capital costs may drag down the bank's financial strength.

Course of action (ii) can be achieved by reducing lending to customers and companies alike. In the most recent Bank Lending Survey conducted by the ECB, the percentage of banks in the Eurozone reporting a tightening of their lending criteria in the fourth quarter of 2011 came close to the percentage that prevailed during the credit crunch following the collapse of Lehman Brothers in 2008.

Bank of Ireland's recently released (20 February 2012) full-year results for 2011 illustrate the point further. The bank reported in the release that it had reduced risk-weighted assets by 15.1% to EUR66.7bn. Allied Irish Banks plc reported on 30 March 2012 that it had achieved 62% of its 3-year non-core de-leveraging target in 2011.

It is unlikely that there will be any significant improvement in the housing market in Ireland until bank lending returns to some sort of 'normality' and the employment situation gets better. According to the Central Statistics Office, house prices declined by 13% in Ireland in 2011. Bloxham Stockbrokers, in a recent communication⁷ to its clients, said that it expects a double-digit decline in house prices in Ireland in 2012.

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⁶ The sample includes all the banks that participated in the 2011 EU-wide stress test although the EBA considered it appropriate to exclude a subset of small non cross-border banks from the package. The total sample encompasses 71 banks.

⁷ Bloxham Economic/Bond Research. Residential Property Price Index (Feb). 26 March 2012.

The ECB's Bank Lending Survey also asked Eurozone banks to describe the actions they were taking in response to the EBA's 9% core Tier 1 capital ratio by June 2012. Thirty seven percent of banks said that they reduced risk assets in the previous six months and forty seven percent of banks said that they intended to reduce risk assets in the next six months. These results suggest that the EBA's 9% core Tier 1 capital requirement by June 2012 is creating a credit crunch which may detract from growth or slow down the Eurozone economy.

According to the Irish Times of 3 March 2012, a conference organised by the Central Bank was told that credit conditions for Irish small and medium enterprises are worse than for their European counterparts.

As well as an indication of a contraction in the supply of credit, the ECB's survey reiterates the decline in demand for loans in the Eurozone that started in the third quarter of 2011.

European banks therefore seem to be cutting back on lending and selling assets to meet the 9% core Tier 1 capital requirement by June 2012. The selling of assets by European banks is not just affecting the EU. European banks are divesting themselves of assets in the United States and the Asia as well as within the EU and this risk aversion and balance sheet reduction by European banks is beginning to affect the economies of Asia and to a lesser extent that of the United States.

The World Bank's April 2012 Global Financial Stability Report (the "WBGFSR") suggests that large EU-based banks could shrink their combined balance sheet by as much as \$2.6 trillion (€2.0 trillion) through end-2013, or almost 7 per cent of total assets.

The WBGFSR also states:

Although subject to considerable uncertainty, our estimate is that about one-fourth of this deleveraging could occur through a reduction in lending, with the remainder coming largely from sales of securities and non-core assets.

In summary, barring intervention by policymakers, the synchronized and large-scale deleveraging by Eurozone banks is likely to have a negative impact on economic activity in the real economy as a result of reduced credit supply and asset 'fire sales' exacerbating the volatility of or depressing asset prices.

Mario Draghi's Unlimited Supply of 3-year Funds

In December 2011, Mario Draghi, the president of the ECB, introduced the ECB's Long Term Repo Operation ("LTRO") which provides for unlimited quantities of money to be lent to Eurozone banks for a period of 3-years at a rate of interest of 1% per annum. In late February 2012, a second tranche of LTRO allowed banks to tap the ECB for a further EUR530bn bringing the total amount provided by the ECB under the LTRO arrangement to over EUR1,000bn.

In many ways this has been quite a successful operation by the ECB. Some of the money borrowed by Eurozone banks from ECB under the LTRO has found its way

into the government bonds of the Italy, Spain, Portugal and Ireland calming the government bond markets of these economically challenged Eurozone countries and lowing the yields on such bonds below their highs but not to levels which are sustainable, long-term borrowing costs for such governments. The LTRO scheme also ensures that banks are unlikely to fail due to a lack of access to liquid assets and provides them with more time to sell assets in the de-leveraging process thus avoiding 'fire sales'.

However, when banks borrow cheap money from the ECB and buy significant amounts of the bonds issued by their domestic governments this links the fates of those banks and their governments even further. One could argue that financially weak banks are buying lowly-rated⁸ sovereign debt.

Has this money been used to fund new loans to consumers and companies? Judging by the reduction in yields on bonds issued by Italy, two-year yields fell from 4.6% p.a. to 2.5% p.a. and Spain, corresponding fall from 3.4% to 2.5%, at least, it would appear that a significant proportion of the LTRO money has purchased government bonds in the period from the beginning of 2012 to 28 March 2012. For example, in the months of December 2011 and January 2012, Italian banks increased their purchases of Italian government debt by 13% to EUR280bn while Spanish banks increased their holdings of Madrid's state bonds by 29% to EUR230bn.

On the positive side for such banks, the purchases ought to provide banks with a positive interest rate pick up between the higher yielding government bonds and the 1% charged for LTRO money.

In the first half of 2012, many European banks have to refinance maturing debt. As a protection against the possibility of not being able to roll over such debt, these banks have drawn down LTRO funds from the ECB and held them in reserve to cover that eventuality. It's very unlikely that any of the LTRO drawn down as a kind of security against the ability to refinance will make it into the real economy via lending to consumers and companies alike and prevent a contraction of credit in the economies of Europe. It seems likely that LTRO funds drawn down to meet banks' payment obligations will not be used to fund new loans to consumers and companies.

The Wall Street Journal of Tuesday, 6 March 2012 reported that banks deposited almost EUR821bn on Monday, 5 March 2012 with the ECB. As of that date, this was the highest amount ever deposited with the ECB by banks. Interestingly, the deposits account for the vast bulk of liquidity released as part of the December 2011 and February 2012 LTRO operations.

Lessons from the Economic History of the U.K.

The 80-year-old, Emeritus Professor of Economics at Cambridge University, Professor Robert Neild, took the U.K. economy as an example to provide some insights into how significant debt crises in the past have been solved. The lessons from his paper to the Royal Economic Society in January 2012 might be summarised as follows:

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 $^{^{8}}$ Ireland: BBB-; Spain: A; and Italy A- are rated by Fitch. Source: Irish Times 27 January 2012.

- 1. Cutting the budget deficit and stabilising the debt-to-GDP ratio during periods when the private sector is paying down debts and generally de-leveraging is likely: (i) to be very difficult if not impossible; (ii) to lead to political instability; and (iii) to give rise to social unrest.
- 2. Rigid balanced budget rules that put the budgetary stance in complete opposition to the business cycle are likely to prove illogically pro-cyclical.
- 3. The negative effects of fiscal austerity can be partly offset by the monetary policy of the central bank and the exchange rate policy.
- 4. GDP growth is the key to lowering the debt-to-GDP ratio to sustainable levels; this may take decades; and a little inflation may be helpful in resolving the problem. Deflation is to be avoided at almost all costs.

Summary

Taking into account the economic environment described above, including:

- ✓ The aggressive debt reduction activities of households, corporate entities weighing on consumption and investment expenditure respectively;
- ✓ The contraction in bank lending notwithstanding the ECB's LTRO programme;
- ✓ The views of Robert Neild, Emeritus Professor of Economics at Cambridge University;
- ✓ The likely economic consequences arising from the implementation of the Fiscal Compact;
- ✓ Government austerity programmes in EU countries like the U.K., Ireland, Portugal, Greece and Spain; and
- ✓ The impact of increasing unemployment on the housing market,

the economic outlook in Europe is for falling disposable income arising from government austerity programs and low growth in incomes, a focus by consumers and companies on the repayment of debt, low levels of confidence among consumers due to falling house prices and high levels of unemployment, very tight conditions for the availability of credit for consumers and firms alike and very low or declining GDP growth for some time yet.

Put simply, there is a shortage of effective demand in Ireland and many EU countries and the general thrust of public policy is doing little to address this situation.

Further, the continuing uncertainty regarding the Eurozone debt crisis will continue to cause volatility in investment markets.

Solvency II

Internal Models – Key Role for the Actuarial Profession

Solvency II is to be welcomed as it provides for a more risk-sensitive basis for the determination of an insurance company's regulatory capital requirements. As Solvency II permits internal models to be used by insurance companies to calculate

their Pillar I capital requirements, it is likely to give rise to the use of internal models by at least some insurance companies.

Internal models have been a feature of the determination of Pillar 1 capital requirements for banks for some years now. Some commentators⁹ have noted that it is more difficult to evaluate the financial strength of banks that use internal models to determine their Pillar 1 capital requirements. Such analysts complain that internal models in banking, the critical details of which are known only to the banks and their regulators, have tended to produce lower capital requirements year after year due to 'optimisation', 'data cleansing' and 'model changes' (collectively, "Parameter Changes").

For example, in May 2011, when Lloyds Banking Group published its Pillar III disclosure statement, it emerged that it had ceased using the Advanced Internal Ratings Based version of Basel II, which allows a bank to use its own loss severity estimates, in favour of the Foundation Internal Ratings Based approach, which uses standard loss severity parameters, in respect of the balance sheet of its newly acquired entity, HBOS. According to the New York Times of 24 November 2011, the move reduced the new group's risk-weighted assets by £34bn. Such moves and flexibility within the regulatory environment raise the suspicions of those who analyse the financial strength of banks.

Further, internal models in banking gave false comfort to the public and the taxpayer in the run up to the financial crisis.

This we believe is an area where the actuarial profession have a very important role to play. By avoiding the pitfall that banks using internal models fell into in failing to engage fully with investors in explaining why capital requirements changed, the actuarial profession may be able to increase investors' confidence in internal models in insurance.

In time, a leading insurer with a strong solvency position may be tempted to give investors and analysts of financial strength transparency and an audit trail around risk capital reserving by adopting the Standardised Approach under Solvency II. Ultimately, confidence in the share price of an insurer may be more valuable than a lower capital requirement of an opaque internal model the key details of which are known only to the company and its regulator.

Diversification

Diversification across the different risks like market risk, default risk, general insurance risk, life assurance risk and health insurance risk is an easy concept to grasp. However, it's not quite as easy to show that it works in practice and to put correlation numbers on it with high levels of confidence.

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⁹ Sources: New York Times. http://www.nytimes.com/2011/11/25/business/global/measuring-risks-at-europes-banks.html and Barclays Capital: Saving Risk Weightings 12 July 2011.

In the case of a pan-European insurance company with a subsidiary writing business in each Member State, even if all those quantitative problems could be solved there are likely to be tax and legal barriers to realising the benefits of diversification in practice. This problem is reduced significantly in the case of an insurer structured as single entity with branches in each Member State as much of the capital can remain in the head-office centre.

To gain the full benefit of diversification, capital has to be able to move freely from one Member State to another without tax friction so that funds can move from the profitable lines of business in the geographical locations where they are located to the jurisdictions where they are needed to match losses. A branch structure avoids the need for much of that flow of capital compared with an insurer structured as a series of subsidiaries across Member States.

Reinsurance

The manner in which reinsurance within a group is arranged may also offer Solvency II diversification benefits. If each operating entity of the insurance group is arranging its own reinsurance then margins and a less diversified portfolio of risks are being presented to each operating entity's reinsurer. To maximise the diversification benefit under Solvency II and reduce the amount of profit passed to reinsurers, the group might consider creating an internal reinsurance subsidiary which captures the outwards reinsurance of its operating entities and arranges the group's reinsurance with external reinsurers.

If all the manifestations of Solvency II come to pass, capital requirements for some life assurance and general insurance companies will rise. Reinsurance is one of the biggest sources of finance for such companies and reinsurance companies are likely to benefit from the introduction of Solvency II in the short-term in terms of demand for their services.

Mark-to-market Valuations

The marked-to-market valuation of assets and liabilities required under Solvency II is likely to lead to a significant reduction in asset-liability mismatches and a shying away from guaranteed products.

Mergers & Acquisitions

While the European Commission will have an eye to avoiding a massive shock to the life assurance and general insurance industries and their international competitiveness as it mulls over the remaining outstanding issues of Solvency II, there is no doubt that capital requirements for life insurers selling guaranteed products are going to rise. Higher capital requirements are likely to drive consolidation and therefore there is likely to be a lot of mergers and acquisitions activity for investment banks in the wake of Solvency II.

Possible Implications for the Insurance Industry

We will look at possible implications of the combined effect of the current economic environment in Europe, the Fiscal Compact and Solvency II for life assurance companies and general insurance companies in Europe with particular focus on Ireland.

Life Assurance

Savings

With consumers directing disposal income towards debt repayment, their 'balance sheets' showing an excess of liabilities over assets and government austerity programs reducing disposable income through tax increases, the amount of income available for life assurance savings is likely to fall across much of Europe.

Further, in times of uncertainty, consumers are less likely to lock savings into long term products preferring instead bank deposits and other highly liquid investments.

Investment results are a key source of earnings for life assurance companies. These are likely to remain volatile. Thus fees for managing policyholder assets are likely to be volatile and unlikely to grow significantly in the next few years.

Falling interest rates on fixed-income investments may give rise to solvency problems for life assurance companies with asset-liability duration mismatches in products with high levels of guarantees.

A significant problem is the difference in yields on EUR-denominated debt issued by different Eurozone countries. Yields on German government bonds are significantly lower than those on say Irish government bonds. If life assurance companies have to value their liabilities using yields on German government bonds but hold Irish government bonds to back those liabilities then there is an asset-liability mismatch problem which may reduce the solvency of the life assurance company.

Pension Products

Austerity measures also threaten savings products with tax incentives. As the tax incentives are reduced or withdrawn, the attractiveness of such products declines. This is also weighing on premium growth of life assurance companies.

In Ireland, one has only to look at the pensions levy, changes in the taxation of retirement lump sums, the abolition of relief from employer PRSI on employee pension contributions and the imposition of the Universal Social Charge on employee pension contributions. The threat to abolish higher rate tax relief for pension contributions simply makes the pensions savings equation deliver a negative return on investment after tax for higher rate tax payers and does nothing for consumers' confidence in the pensions savings market.

If the final Solvency II rules for annuity business:

- (i) result in a significant increase the capital requirements for writing annuity business; and
- (ii) force life assurance companies to examine the risks inherent in annuity business more closely than in the past,

then the cost of purchasing an annuity with a lump sum will rise. This in turn will push up pension funding costs and simple economics suggests that participation in pension schemes is likely to fall as demand falls when price rises.

In Ireland and the U.K., annuities are the back-bone of much private pension provision. The Irish and U.K. governments may need to pay close attention to the decisions of the architects of Solvency II in relation to items (i) and (ii) immediately above. As the age profile of the population rises, a rising proportion of voters will be affected by the decisions in relation to (i) and (ii).

Protection

With unemployment running at more than 14% of the workforce, slow growth in wages & salaries, low levels of lending and a housing market with falling prices, we believe that the demand for life assurance cover and mortgage protection policies will decline and remain subdued.

Coupled with this lower demand, competition in this sector is likely to increase significantly as insurers focus on this market to make up for loss of earnings from a saving market hammered by cuts in disposable income and unattractive returns in a low interest rate environment. Higher competition is unlikely to lead to any significant earnings growth in the protection sector of the market.

A Few Bright Lights

One of the few bright lights for the life assurance industry is the possibility that governments across Europe might outsource pension provision to life assurance companies in order to rid themselves of their off-balance sheet pension liabilities. These off-balance sheet pension liabilities are very significant and the current European sovereign debt crisis might be just the crisis that will not be wasted in tackling the burden of public sector pensions.

There may also be an opportunity for the life assurance industry to tap the growing move by employers to close defined benefit pension schemes and move to defined contribution schemes for future service. Accounting disclosures, the risk to the sponsoring employer and increasing regulation of defined benefit pension schemes are likely to continue to drive this move forward.

Life assurance companies have sales, administration, IT systems and governance structures to operate such business at reasonable cost.

The extent to which these types of business would provide profits for life assurance companies is somewhat dependant on the costs of compliance in the defined-contribution pensions market.

Asset Volatility

The rapid de-leveraging by the European banking industry in the race to meet the EBA's 9% core Tier 1 capital ratio and the absence of any resolution to Eurozone's sovereign debt crisis are likely to contribute to continuing high volatility in and downward pressure on the asset portfolio of life assurance companies.

In such an environment, it is important to examine the exposure of life assurance companies to the different asset classes.

Life assurance companies tend to be characterised by significant existing blocks of business. Even if these existing blocks of business could be matched from an investment point of view by 'risk-free' assets, there remains inherent interest rate risk, duration risk and inflation risk

Where the nature of this business is unit-linked, falls in asset values may be absorbed largely by the unit-linked policy holders. However, where the nature of this business is participating or guaranteed, life assurance companies are forced to invest in somewhat risky assets in order to meet the expectations of existing policyholders and attract new policyholders alike. Falls in asset values have a much more significant impact on the value of shareholder assets for the latter type of business. Put simply, guarantees inherent in participating and guaranteed business limit the extent to which policyholders share in the losses in the event of a fall in asset values.

Thus asset volatility can threaten the solvency of life assurance companies and in choosing an insurance company today rating agencies are likely to examine the extent of balance sheet exposure to different asset classes.

For life assurance companies with high levels of exposure, after adjusting for the extent of policyholders' share of exposure, to risky assets like equities and credit, solvency risk is heightened.

Asset volatility makes unit-linked life assurance products focused only on one or a few highly-correlated asset classes less attractive to policyholders. Further, given the decline in disposable income from debt servicing and austerity, unit-linked savings sales are unlikely to be a growth area for life assurance companies.

Rating agencies also take note of the impact of asset volatility on the insurance companies that they rate. For example, on 22 March 2012, Fitch noted that many European insurers reporting results over the previous few weeks had generally reported that their Solvency I ratios had strengthened. While welcoming the rebound, Fitch noted that it largely reflects the recovery in sovereign bond markets, rather than any underlying improvement to insurers' balance sheets. Solvency I ratios deteriorated in the later part of 2011 due at least in part to the European sovereign debt crisis. Insurers targeting high investment-grade ratings may need to improve the quality of the capital they hold to reduce volatility in their solvency ratios. Fitch said that it believes that volatile solvency ratios are not in keeping with the highest ratings, as they indicate that an insurer has a limited ability to shield itself from significant market moves.

Solvency II

Solvency II, with its zero-capital-charge for holding OECD government bonds, is likely to push up the percentage of insurers' investment portfolios invested in OECD government bonds. We understand that EIOPA is looking at the inconsistency between: (i) the zero-capital-charge for say, Portuguese or Irish government bonds; and (ii) CDS spreads indicating probabilities of default of the order of 48% and 47% respectively assuming a loss given default of 60% of nominal value.

Life assurance companies, in an attempt to manage the potential impact of investment volatility on solvency and changes in the zero-capital-charge for all OECD government bonds, may well be forced to exclude from their fixed income sovereign bond portfolios the government bonds of troubled economies like Ireland, Spain, Italy, Portugal and Greece.

Solvency II is likely to cause life assurance companies to shy away from products with any kind of guarantee. This may make it very difficult for life assurance companies to distinguish themselves from the rest of the long-term savings market. Taking the latter point along with our earlier observation that in times of uncertainty consumers are less likely to lock into long-term savings products preferring instead the liquidity of bank deposits, the competitive environment for life assurance companies is likely to intensify.

Recent Results

One of the largest and most successful Irish life and pensions companies recently reported its new business results for 2011. According to the Irish Times, compared with 2010, the company's 2011 results showed that total new Irish business, as measured by annual premium equivalent, declined by 16%; pensions business dropped 16%; and life assurance new business was down 4 per cent.

General Insurance

Demand for General Insurance

We believe that the demand for general insurance will fall in line with falls in GDP. Results¹⁰ released on 5 March 2012 by one of the leading Irish general insurance companies showed that gross written premiums in the Irish general insurance market fell by 2.0% in 2011 compared with that of 2010 while the market declined by 4.9% over the same period.

Cut-backs in public sector spending are likely to lead to a reduction in the level of detection of penalty point offences like speeding and drink driving and this may lead to higher claims frequency or higher claim amounts for private motor and commercial motor lines of business. There is some evidence¹¹ of a reduction in the detection of mobile phone use while driving; failure to wear a seatbelt; and other offences. Detection of these offences has declined from a peak in 2008 through 2009, 2010 and 2011. The detection of speeding offences showed a similar falling pattern in 2009 and 2010 but actually rose sharply in 2011.

Automobile fuel usage has also fallen from its peak in 2007 reflecting possibly a combination of less driving and the use of more fuel efficient cars. An interim management statement from an Irish general insurance company released on 30 April 2012 indicated that the reduction in miles travelled had contributed positively to its motor account.

The sums insured for fire, flooding and other perils in relation to commercial property assets and household insurance are likely to be underpinned by the floor of replacement cost as a basis for calculating such sums insured notwithstanding the falling values of commercial property assets and housing.

The rise in number of unemployed and the lowering unit labour costs in the Irish economy are likely to put downward pressure on premiums for employers' liability insurance. According to the most recent *Quarterly National Household Survey*, construction employment, a not insignificant driver of commercial insurance premiums, now stands at 108,000 a decrease of 60% from the peak of 269,900 recorded in the second quarter of 2007.

As both consumers and companies focus on value for money and their costs, insurance premiums will come under increasing scrutiny. This is likely to lead to squeezed underwriting margins.

Total premium income is likely to fall notwithstanding attempts to push through rating increases in motor and household lines and expenses may have to be reduced to maintain profitability or even solvency. In such an environment, competition is likely to intensify as growth comes only by gaining market share and growing market share is likely to push up expenses in terms of advertising costs. An interim management statement from an Irish general insurance company released on 30 April 2012

 $^{^{10}\,}http://www.fbdgroup.com/media/FBDGroup/files/preliminary-results 2011.pdf$

¹¹ See FBD Holdings plc 2011 Results presentation to analysts dated March 2012.

indicated that that the general insurance market contracted in the first quarter of 2012 in line with economic activity and that the market is very competitive as evidenced by the level of advertising spend and the "pricing of business insurance risks". The company reported that the average premium per policy was down in Q1 2012 compared with Q1 2011 and that it maintained the same level of premium income in the two quarters only by increasing the number of policies.

For the larger insurers with strong non-European earnings, there may be significant opportunities to acquire weaker European competitors.

Asset Volatility

The rapid deleveraging by the European banking industry in the race to meet the EBA's 9% core Tier 1 capital ratio and the absence of any resolution to Eurozone's sovereign debt crisis are likely to contribute to continuing high volatility in and downward pressure on the asset portfolio of general insurance companies also.

In such an environment, it is important to examine the exposure of general insurance companies to the different asset classes.

Thus asset volatility can threaten the solvency of general insurance companies and in choosing an insurance company today corporate brokers would do well to examine the extent of balance sheet exposure to different asset classes.

For general insurance companies with high levels of exposure to risky assets like equities and credit, the risk of a credit-rating downgrade is heightened.

We believe that the current climate will force general insurers to lower the risk profile of their investment portfolios moving away from long-dated debt, equities and non-investment grade bonds towards short-dated debt, investment-grade corporate bonds and cash.

Recent Results

One of Ireland's larger general insurance companies while reporting its Irish results for the calendar year 2011 in the Irish Times on Friday 24 February 2012, noted that it had implemented rating actions across household and personal motor insurance, increasing both by 6 per cent and that it expected its Irish operations "to create strong value" in 2012.

Management Mitigating Actions in General Insurance

We suggest nine possible management strategies to mitigate the worst effects of the economic climate, the Fiscal Compact and Solvency II.

1. Is the sales and marketing focusing on the growth areas of the economy including the agricultural sector and the export sector of the economy? While GDP may be falling there are sectors of the economy that are growing and perhaps sales and marketing efforts might be concentrated on these 'higher income' sectors of the economy.

- 2. Has the company got the correct mix of new business channels including brokers, direct writing offices and easy-to-use, web-based offerings to target the growth sectors of the economy?
- 3. In view of the fall in disposal income of consumers and businesses alike, has the company examined its claims management procedures, considered direct settlement options and stepped up its fraud investigations?
- 4. How can the company take advantage of the fall in commercial property prices? Are there any expense disadvantages arising from the location of a company's headquarters? Can that expense be lowered by moving to a cheaper property location and using the benefits of communications technology?
- 5. Is the company examining the possible benefits of telematics as a competitive advantage in motor and commercial fleet market?
- 6. Has the company's capital base been examined with a view to making it more flexible? For example, could the bulk of the general insurance risk be held by a Swiss or Bermudian company? Would single parent entity with branches throughout the EU provide a better capital structure by which to take advantage of the diversification benefits of Solvency II?
- 7. Has the company looked at its reinsurance arrangements under Solvency II? Are the local operations in each jurisdiction arranging their own reinsurance or is a more diversified pool of reinsurance business arising from a number of entities across the group being offered to reinsurers?
- 8. Has the company looked at speciality businesses like fine art and kidnap & ransom insurance?
- 9. If the company does not have branch structure throughout the EU, has it examined its EU-wide tax management policy to minimise tax arising on moving capital between subsidiaries?

Stress Indicators

The directors of insurance companies never like to cut dividends as most of their shareholders buy insurance company stocks for their high dividend yields. We believe that the early warning signs for the following three events will be a cut in the company's dividend or a significant change in the pay-out ratio: (i) weakness in an insurance company's balance sheet; (ii) weakness in its solvency position; and (iii) deteriorating outlook for future cash flows. Solvency in this context means economic solvency rather than solvency measured under Solvency I rules.

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