



BANK OF ENGLAND

Speech

Macroprudential Policy for Insurers

Paper by

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Introduction

1. Aspects of what we now term microprudential regulation of insurance have existed for well over 100 years in a number of countries. For example, New Hampshire established the first state agency for the supervision of insurance in the United States in 1851. In the UK, the first Act of Parliament on Life Assurance in the UK was enacted in 1870.¹
2. Microprudential insurance regulators have continually adapted their approaches as financial markets and products have become more complex and understanding of risk improves. Risk-based regulation is the latest development in this process of improvement. But even risk-based regulation has now been around for about the last 25 years or so in some jurisdictions.
3. Turning to macroprudential regulation – the concept has been around since the 1970s, with central bank financial stability reports becoming common from mid-1990s onwards. Statutory-based macroprudential regulation, with explicit statutory objectives, policy tools and operational decision making frameworks, however, has largely been a post-crisis development.
4. There is no question in my mind that microprudential regulation to protect companies' safety and soundness and to protect policyholders is the key foundation of all insurance prudential regulation. And I know that this is not a controversial statement. What is more controversial is whether macroprudential regulation has a role to play in insurance regulation.
5. In what follows, I will explain why I believe that microprudential regulation – the key plank of prudential regulation in insurance - needs to be complemented with macroprudential overlays to be comprehensive and fully effective.

Macroprudential Regulation

6. Part of the challenge of understanding the implications of macroprudential regulation is setting out what we mean by it.
7. Back in 2003, Claudio Borio, the BIS's Head of the Monetary and Economic Department² and an influential thinker in this area, described the objective of microprudential regulation as limiting the likelihood of distress at an individual institution. In insurance this objective tends to be aligned to an objective about the safety and soundness of regulated firms. By contrast, Borio saw the objective of

¹ These aspects include, for instance, separation of assets for the management of life and non-life policies. In Germany, the Insurance Supervisory Law was introduced in 1901; in France, the first state controller of insurance was appointed in 1899 and in Japan the Insurance Business Law Act was enacted in 1900. Sources: Cummins and Venard (2007), Handbook of International Insurance, Burling and Lazarus (2011), Research Handbook on International Insurance Law and Regulation.

² Borio (2003), Towards a macroprudential framework for financial supervision and regulation, BIS working paper 128

macroprudential policy as limiting the risk of losses to income in the economy arising through the endogenous behaviour of financial firms and capital markets.

8. According to this view, microprudential regulation is about protecting the firm and its policyholders from external shocks beyond its control (e.g. a longevity shock, a shock from interest rates, or a cyber attack) or from risks in the way it manages itself (e.g. because of its business strategy or governance). Macroprudential regulation is about protecting others³ from the way a firm or a set of firms contributes to the build-up of risks and to the propagation of amplification of risks.

Lessons from history

9. Looking back at recent financial crises and asking: “what role did insurers play?” can be a helpful way to assess the limits of microprudential regulation (if any). It also helps in identifying the channels through which the behaviour of an individual insurance firm or set of firms can propagate and amplify shocks, with adverse consequences for the macroeconomy.
10. In my reading of history, two amplification channels involving insurers appear to be common to crises: **interconnectedness**, including (i) exposure to potentially systemic counterparties or (ii) common exposures to macro risks and **asset liquidation risk** stemming from liquidity mismatches between assets and liabilities. On occasion, we see a third channel at work— lack of **substitutability** of critical functions or services. Let me try to illustrate these channels more specifically through a few historical examples.
11. No paper on systemic risk and insurance can be complete without mentioning AIG and the recent financial crisis. So, I am afraid, this is the time for it!
12. AIG’s problems stemmed from it being exposed to Mortgage-Backed Securities (MBS) - the **common exposure** which was central to the global financial crisis. First, AIG Financial Products issued credit-default swaps providing protection against the default of MBS and Collateralised Debt Obligations containing portfolios of MBS. Second, AIG Securities Lending Corporation took the cash generated by loaning life insurance company assets and invested it in MBS which offered higher yields.⁴
13. When MBS fell in value AIG’s counterparties saw the potential risk from the firm’s business model. Concomitant falls in AIG’s credit ratings allowed its CDS counterparties to demand more collateral and they did, leading to severe liquidity strain on the firm. In response to falling market values of the MBS AIG had acquired via securities lending and this liquidity stress, the firm attempted to liquidate

³ Economists refer to costs imposed on “others” that an agent or set of agents would have no incentive to take into account as negative externalities. In the context of macroprudential regulation, these “others” are often referred to as the system as a whole.

⁴ Federal Reserve Bank of Chicago (2014) AIG in Hindsight

its MBS, into what was, by then, an illiquid market – making it even more illiquid. This is the **asset liquidation** channel at work. The exposures of AIG to its CDS and securities lending counterparties led to fears that, should AIG collapse, the resulting losses would ripple across the financial system, potentially triggering a wave of further defaults. This is the broader **interconnectedness** channel at work (McDonald and Paulson (2015)).

14. The monoline insurers were another example of these channels at work. First, they had a **common exposure** to the default of the assets underlying the mortgage-backed securities. Second, they were significantly **interconnected** with some potentially systemic counterparties being materially exposed to their performance. When the major monolines were downgraded in 2008 the securities they insured were also downgraded, contributing to falling demand for MBS and prices.
15. There are other examples of insurers' behaviour propagating and amplifying shocks through the common exposure and the asset liquidation channels in particular. Research has shown that US life insurers that were suffering strains on their capital sold MBS and other insurers were less willing to buy them because of concerns about weakening their own capital positions, contributing to falling values of MBS – the **asset liquidation channel** at work, once again.⁵
16. And in the Netherlands, during the financial crisis, Government support was provided to bancassurance conglomerates because of concerns that exposure of the banks in the group to MBS could have a knock-on effect on the insurers of the group – another form of **interconnectedness**.⁶ The Government indicated it was concerned about the 'pivotal role' of these insurers, which could be undermined by a loss of confidence – an example of the **substitutability** of critical functions and services channel at work.⁷
17. The global financial crisis was the most recent illustration of distressed insurers propagating and amplifying shocks that impact on others, but there have been others in not so distant history.
18. One example occurred during the Asian crisis. The Republic of Korea experienced a currency crisis in 1997 which led to a sharp rise in interest rates from 12% to 30%.⁸ Korean life insurers had developed a banking type business model, with loans accounting for 40-50% of assets and limited penalties for surrenders of savings policies.⁹ When interest rates rose Korean insurers suffered the opposite **common exposure** problem of interest rates that a number of firms in various countries

⁵ Ellul, Jotikasthira, and Lundblad (2011) Regulatory pressure and fire sales in the corporate bond market, *Journal of Financial Economics*; Merrill, Nadauld, Stulz, and Sherland (2012) Did capital requirements and fair value accounting spark fire sales in distressed mortgage-backed securities, *Working Paper*, Ohio State University.

⁶ ESRB (2015) Report on systemic risks in the EU insurance sector (Annex 3). In addition, the Netherlands did not have an Insurance Guarantee Scheme in 2008.

⁷ Another example of the lack of substitutability channel is the failure of the Australian firm HIH in 2001, see French, Vital, and Minot (2015) "Insurance and Financial Stability", *Bank of England Quarterly Bulletin*, 2015 Q3.

⁸ French, Vital and Minot (2015) *ibid* pp. 249

⁹ IMF (2003) Insurance and Issues in Financial Soundness pp. 20

are currently experiencing (IMF (2016)).¹⁰ Insurers were hit by a sharp increase in non-performing loans and a liquidity mismatch, when policyholders surrendered their policies in favour of savings products offering higher interest rates, and sales of new policies fell. Sales of assets by insurers because of liquidity problems led to contagion through falling asset prices in already weak financial markets¹¹ - the **asset liquidation channel** at work again. The Korean regulator extended the deposit guarantee schemes to insurance companies to halt the wave of surrenders and liquidity problems affecting the life insurance sector.¹²

19. Another example is the failure of seven mid-size life insurers in Japan during the period 1997-2001. These insurers had a **common exposure** to interest rate risk. This is because they issued guarantees that they were unable to meet as interest rates fell and other assets saw lower returns in the face of recessionary pressures. These failures did not lead to the need for taxpayer support, since other firms contributed \$7 billion to a policyholder protection fund. However, policyholders for five of the firms experienced cuts to the values of their own policies, and at the time the IMF was concerned that the failure of these firms could be systemic. This is because they spilt-over to a banking sector already weakened by impaired loans through **interconnectedness** from cross-ownership.¹³
20. Would an effective microprudential regulatory regime have been sufficient to deal with these problems counterfactually?
21. A microprudential framework that capitalises individual firms *ex ante* against stresses in interest rates and other adverse asset price developments can go a long way to deal with problems of **common exposure** to macro-risks. In addition, a microprudential capital framework that encourages firms to match the liquidity of their liabilities with the liquidity of their assets can play a crucial role in reducing risks from the **asset liquidation channel**. This can in part be achieved through an approach to valuation of assets and liabilities that makes a distinction in the structure of liabilities between those that allow assets to be held long-term and those that might require immediate sale of assets. If this distinction is not made there is a risk that the value of insurers' assets and liabilities becomes unnecessarily volatile, which itself can become a source of asset liquidation risk.¹⁴ A number of extant regimes draw this distinction in the valuation of liabilities in their microprudential regimes, departing from full market-consistency (or fair value), which also serves to meet macroprudential objectives (Geneva Association (2016)).

¹⁰ IMF (2016) The insurance sector – trends and systemic risks implications, chapter 3, Global Financial Stability Report

¹¹ Lee (2001) Korean Experiences in Life Insurance Sector Reforms After the Financial Crisis, The Geneva Papers on Risk and Insurance Vol 26 No 3, pp. 483

¹² IMF (2003) *ibid*, pp. 20

¹³ IMF (2003) Japan: Financial System Stability Assessment and Supplementary Information

¹⁴ This is the type of risk that Borio saw as endogenous, with sales of assets triggering further volatility that market participants react to. Conversely, making the distinction does not imply that valuation should not be reflective of current economic conditions. Otherwise market confidence can be put at risk.

22. In conclusion, a stress-based microprudential capital adequacy framework focussed on protecting the soundness of the sector as a whole from macro-stresses and from liquidity mismatches while avoiding excessive balance sheet volatility is a necessary condition to delivering macroprudential stability. But it is not a sufficient condition. Macroprudential overlays are needed to deal with macroprudential risks such as interconnections with systemic counterparties and lack of substitutability. It is also clear, that in the past, and most notably in the great financial crisis, the failure of individual companies has proved systemic suggesting the need for macroprudential overlays tailored to these individual companies as well. In a recent article, Felix Hufeld, my predecessor as Chair of IAIS ExCo and current President of Bafin, has raised similar points.¹⁵

The IAIS is taking forward a broad range of initiatives to develop exactly such a framework.

23. First and foremost, the IAIS is making progress in developing a robust stress-based microprudential framework. For internationally active insurance groups (IAIGs) this framework will include a risk-based consolidated group capital requirement – the Insurance Capital Standard (ICS), which is scheduled for agreement in 2019. But it will also deliver a range of other qualitative standards designed to address a host of microprudential risks arising from the way a firm is governed and manages its own risks (ComFrame). At the same time, the IAIS is modernising and developing its Insurance Core Principles which apply to insurance companies regardless of size and international exposures.

24. The ICS, ComFrame, and the ICPs are the foundational pillars of the IAIS's work. But as I have already said, in my view, they need to be complemented by macroprudential overlays. On that front as well, the IAIS is making progress, delivering to a mandate requested by the Financial Stability Board (FSB).¹⁶

25. Earlier this week, the FSB identified 9 Global Systemically Important Insurers (G-SIIs), based on the IAIS's recommendation and using end-2015 data.¹⁷ G-SIIs are subject to more intensive supervision than other IAIGs, which is aimed at managing and mitigating the activities that led to their identification¹⁸, such as those creating interconnectedness or asset liquidation risks. They are due to be subject to Higher Loss Absorbency (HLA) capital standards which have been developed in line with the FSB's recommendation.¹⁹ The final element of the IAIS's macroprudential framework for G-SIIs is recovery and resolution planning policy measures.²⁰

¹⁵ Hufeld (2016) describes the need for a hybrid regulatory approach to address 'direct' risks from the behaviour of Global Systemically Important Insurers and 'indirect' risks from collective or sectoral behaviour (as well as to protect policyholders).

¹⁶ FSB (2013) Global Systemically Important Insurers (G-SIIs) and the policy measures that will apply to them

¹⁷ FSB (2016) 2016 list of global systemically important insurers (G-SIIs)

¹⁸ IAIS (2013) Guidance for Systemic Risk Management Plans

¹⁹ HLA aims to reduce the probability and impact of a G-SII's distress or failure on the financial system, see IAIS (2015) Higher Loss Absorbency Requirements for Global Systemically Important Insurers

²⁰ FSB (2014) Key attributes of effective resolution regimes for financial institutions

26. The IAIS's approach to assessing macroprudential risk and developing macroprudential policy is evolving as we gain new insights.
27. One of the insights we can draw from the examples I cite is that some of the macroprudential risks stemmed from insurance companies pushing the boundaries of product design or asset-liability management, with business models becoming more like those of banks or hedge funds, including so called Non-traditional, Non-Insurance (NTNI) activities. In June 2016 the IAIS clarified the concept of NTNI activities, an important factor in the identification of G-SIIs, and updated its methodology for assessing G-SIIs.^{21 22} The IAIS now terms NTNI as Systemic Risk from Insurance Product Features. Most commentators agreed that business models which incorporated NTNI could play a role in crises, but it was difficult to create a universal, but precise definition of such activity. The IAIS made progress by linking the non-traditional part of the definition to the amplification channels of common exposure to macro risks and asset liquidation. At the same time, in June this year, the IAIS published its updated G-SII assessment methodology which incorporated these improvements and made a number of others.²³
28. **Overall, the current G-SII identification framework is now closely aligned with the amplification channels that create the need for macroprudential regulation that I described above.**
29. **And the IAIS's work on improving its framework will not stop here. In both of these June 2016 publications, the IAIS committed to review its framework for defining traditional activities that give rise to systemic risk to ensure that they are dealt with in a comprehensive and proportionate manner. In June this year, the IAIS commenced some exploratory work on an activities-based approach to systemic risk. In October, the IAIS Executive Committee considered the initial work and agreed to further exploration, including in looking at interactions with the rest of the IAIS's workstreams.²⁴ And earlier this week, the FSB welcomed the IAIS's exploration of a complementary activities-based approach to address systemic risk.²⁵**
30. In my view, the first and probably most crucial step in delivering an activities-based approach is to ensure that the microprudential framework has the key design features to protect the system against common exposures to asset prices shocks, asset liquidation risks, excessive volatility in balance sheets and asset concentration risk from exposure to default by systemic counterparties.

²¹ IAIS (2016) Systemic risk from insurance product features

²² IAIS (2016) Global Systemically Important Insurers: Updated Assessment Methodology

²³ The updated G-SII assessment methodology also included a reinsurance supplemental assessment to allow the IAIS to conduct a more in-depth analysis of third-party reinsurance activities

²⁴ The IAIS's work is intended to go beyond considering macroprudential risks as they have materialised, and became evident, in past crises, by exploring a range of behaviour or activities that could contribute to the build-up of systemic risk.

²⁵ FSB (2016) FSB publishes 2016 G-SII list, Press release

31. The examples from recent financial crises demonstrate it is appropriate for the IAIS to consider the balance between macroprudential tools that apply to the sector and those that apply only to G-SIIs. The examples suggest, for instance, that had G-SII identification existed at the time of these crises it may not have been sufficient to prevent asset liquidation risk. For instance, we can see this in the case of the behaviour of the insurance sector in Korea during the Asian crisis and the reactions of a number of firms selling MBS during the global financial crisis. Put differently, a set of companies acting collectively could have a material effect on asset markets and the financial system as a whole, without necessarily being individually identified as systemic.
32. Standard setters for other financial sectors besides insurance, have considered, and are considering the appropriate balance between an entity-based approach and a sectoral or activities-based approach to mitigating macroprudential risks. For banking, the financial crisis revealed that a number of banks were too highly levered and had insufficient liquidity buffers to absorb the effects of credit and trading losses, and the re-intermediation of off-balance sheet exposures. These problems were amplified through procyclical asset liquidation and counterparty interconnectedness.²⁶
33. The FSB, in consultation with the Basel Committee on Banking Supervision, has therefore adopted an entity-based approach, with Higher-Loss-Absorbency capital applied to banking groups designated as Global Systemically Important Banks (G-SIBs). The Basel Committee on Banking Supervision has, however, also developed a number of macroprudential tools that apply within the design of the microprudential framework. These tools include higher risk weights for inter-financial exposures adopted under Basel 3 in 2010²⁷ and tighter large exposure limits between G-SIBs to address interconnectedness adopted in 2014²⁸; higher capital requirements for illiquid trading book exposures through the fundamental review of the trading book adopted in 2015, aimed at guarding against asset liquidation costs and the associated fire-sale externalities²⁹; a leverage ratio in 2014 that guards against leverage in the banking system exceeding a certain amount, irrespective of banks' internal assessment of risks;³⁰ and liquidity regulation under the LCR (Liquidity Coverage Ratio) and NSFR (Net Stable Funding Ratio) adopted respectively in 2013 and 2014 that provides incentives to reduce excessive maturity mismatch and the associated asset liquidation macroprudential costs.³¹ The collection of such tools comprise in effect an activities-based approach to systemic risk in the banking sector because they apply to all internationally-active banks that carry out these activities, despite the fact that the approach is not explicitly labelled this way.

²⁶ BIS, FSB, and IMF (2011) Macroprudential policy tools and frameworks, update to G20 finance ministers and central bank governors

²⁷ Basel Committee on Banking Supervision (2010, updated 2011) Basel III: A global regulatory framework for more resilient banks and banking systems (pp7/8).

²⁸ Basel Committee on Banking Standards (2014) Supervisory framework for measuring and controlling large exposures (pp16)

²⁹ Basel Committee on Banking Supervision (2016) Minimum capital requirements for market risk

³⁰ Basel Committee on Banking Supervision (2014) Basel III leverage ratio framework and disclosure requirements.

³¹ Basel Committee on Banking Standards (2013) Basel III: the liquidity coverage ratio and liquidity risk monitoring tools; and Basel Committee on Banking Standards (2014) Basel III: the net stable funding ratio

34. For asset managers, the FSB launched a consultation in June 2016 on an activities-based approach to mitigating the amplification of systemic risk from activities specific to asset management business models, namely leverage within funds; mismatches between the liquidity of invested assets and redemption terms; operational risk in transferring investment mandates and clients; and securities lending.³² The FSB plans to wait for this work to be completed before finalising its entity-based assessment of non-bank, non-insurance systemically important financial institutions.
35. These comparisons with other sectors show how they are considering the balance between an activities-based approach and an entity-based approach to mitigating macroprudential risks. They do not necessarily imply, however, that the tools developed for the other sectors should be exactly replicated for the insurance sector, although there may be instances where the economic nature of the risks are very similar, and tools can readily be adapted to the insurance sector (for example between life insurers' unit linked business and the business of open-ended investment funds).
36. One reason why tools developed for other sectors might not be directly applicable is that the likelihood, timing and effect of the macroprudential risk being propagated and amplified may not operate in an identical way across sectors because of differences in business models. The business model of insurers tends to be less susceptible (although as some of the examples illustrate, not immune) to the type of runs experienced in banking because of solvency concerns, suggesting a lesser likelihood of insurers needing to liquidate assets. First, insurers are funded to a large extent by policyholder liabilities with premiums being paid in advance of benefits. Second, redemptions by policyholders can incur penalties or tax implications. Hence, in general, insurers have less need than banks to secure funding at times of crisis. At the same time, insurers, unlike asset managers and more similar to banks, make promises about payoffs to their policyholders that can only be fulfilled with any confidence if they are partly funded by equity. As a result, insurers with common exposures to the rest of the financial system - either individually or collectively- can suffer equity shortfalls at the same time as the rest of the financial system, propagating and amplifying macroprudential risk through interconnectedness and asset liquidation channels.
37. The second reason is that a macroprudential set of tools builds on the foundations of microprudential regulations that are tailored to specific activities-based risks. Regulators need to take into account the combined effect of micro- and macroprudential regulation on firms' risk-taking behaviour. For instance, in banking, the macroprudential overlays to minimum capital requirements not only include the macroprudential considerations affecting the design of the microprudential framework described in paragraph 33, but also include a countercyclical capital buffer. This buffer is designed to build up capital in upswings of the financial cycle which can be released to absorb losses in downswings, bolstering solvency when banks are in most need to maintain funding, while preventing excessive balance sheet volatility through excessive leveraging followed by excessive deleveraging. Put

³² FSB (2016) Proposed policy recommendations to address structural vulnerabilities from asset management activities

differently, in banking, the macroprudential overlays contain an explicit macroprudential add-on to capital requirements that goes beyond the features built into the microprudential framework. By contrast, as part of the development of the microprudential ICS for insurers, the IAIS is contemplating a countercyclical adjustment by adjusting insurance liability values to avoid creating incentives for asset liquidation because of falling asset values driven by market illiquidity that could unduly affect insurers' solvency.³³ This explicit countercyclical feature is contemplated to be an integral part of the microprudential framework because it's linked to the microprudential valuation framework and the liquidity characteristics of different liabilities.

- 38. It follows that in insurance the exploration of an activities-based approach to address systemic risk across the sector should be considered in tandem with the design of a microprudential framework that provides protection against macro-stresses and from liquidity mismatches while avoiding excessive balance sheet volatility.**

Stakeholder engagement remains important to develop the micro and macro framework

39. As the IAIS continues to develop its range of microprudential and macroprudential tools, and implements them, engagement with stakeholders remains vital. Stakeholder participation ensures greater decision-making transparency, better, more proportionate outcomes, and more successful implementation of IAIS supervisory material.
40. Since its reorganisation over a year ago, the IAIS has engaged more robustly with stakeholders and is continuing to pursue additional opportunities.
41. In this regard, in January 2016, the IAIS Executive Committee (ExCo) created a Stakeholder Engagement Task Force (SETF) to identify ways to better achieve its engagement goals. ExCo has already acted on several recommendations. Firstly, it has opened up the Annual Conference to stakeholder participants. It was held earlier this month in Asuncion, Paraguay. Secondly, it expanded the scope of the 2016 Global Seminar held in Budapest, in June, to a two-day event with significant involvement of diverse stakeholders including some consumer representatives. Thirdly, it has also sought opportunities to invite stakeholder representatives to speak in its Annual Conference and Global seminar panels, and invited their contributions to identifying topics for events, particularly for the ExCo Dialogue held in conjunction with the 2016 Global Seminar. The SETF reported to the IAIS Executive Committee earlier this month on options for further enhancing stakeholder

³³ The IAIS consulted on a market-adjusted valuation approach and a GAAP with adjustments approach in its 2016 consultation on the ICS. IAIS (2016) Risk-based global insurance capital standard version 1.0, public consultation document

engagement and got approval for engagement on specific proposals with stakeholders later this year ahead of finalising and publishing a stakeholder engagement plan at the ExCo meeting in early 2017.

42. The strength of engagement has, and continues to be, vital to the IAIS for developing effective and proportionate policy. The IAIS has much to do in the period before the end of 2019, including finalising the development of the ICS and Higher Loss Absorbency for G-SIIs, while also reviewing its framework for identification of activities that give rise to systemic risk. Both will go some way to achieving the balance of microprudential regulation with macroprudential overlays, which, I believe, will leave the insurance sector better placed to limit the likelihood and effects of future financial crises, as well as continuing to deliver safety and soundness by meeting obligations to policyholders.

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