



SYSTEMIC RISK AND THE INSURANCE SECTOR

Executive Summary

1. The purpose of this note is to identify challenges which insurance regulators face, by providing further input to the FSB on the issues of systemic risk and the insurance sector. For traditional insurers, the time horizon is a key dimension of potential systemic risk. Recent experience has demonstrated unequivocally that non-regulated entities are a key issue of concern. As insurance has a distinct business model, there is likely to be different solutions for insurers.
2. The working definition of IMF/FSB/BIS could usefully be complemented with a timing-related fourth sub element (in addition to size, lack of substitutability and interconnectedness), thus capturing all forms of systemic insurance risk and allowing for the fact that systemic insurance risk does not typically generate immediate shock effects, but plays out over a longer time horizon.
3. To achieve desired macroprudential outcomes, the IAIS believes that it is necessary for insurers to be supervised on a group wide basis, which includes non-regulated entities and/or non-operating holding companies within a group.
4. The IAIS also notes that the distinct business model of insurance means that the policy solutions for systemically risky activities will likely differ between sectors. We look forward to working with the BIS, FSB and IMF in developing the framework of appropriate policy responses that is also applicable to insurers.

Systemic Risk as defined by IMF/FSB/BIS

5. The working definition of systemic risk provided by the IMF/FSB/BIS is:

‘the risk of disruption to the flow of financial services that is (i) caused by an impairment of all or parts of the financial system; and (ii) has the potential to have serious negative consequences for the real economy.’
6. Fundamental to this definition is the notion that systemic risk is associated with negative externalities and/or market failure and that a financial institution’s failure or malfunction may impair the operation of the financial system and/or the real economy.

7. This definition is refined in two important ways:
- **“An impairment or disruption to the flow of financial services** would include situations where certain financial services are temporarily unavailable, as well as situations where the cost of obtaining the financial services is sharply increased.”
 - “The definition requires **significant spillovers to the real economy**, without which an impairment of financial services would not be considered systemic. The real economy impact could be either through an effect on supply or through an effect on demand for other goods and services.”
8. It is understood that this definition of systemic risk is meant to be broad, with "impairment to all or part of the financial system" covering cases where some financial services providers are no longer able to provide those services and "disruption to the flow of financial services" covering cases where the supply of some financial services is not available any more.
9. The IMF/FSB/BIS draft guidance for assessing the systemic importance of an institution, market or instrument is: size, lack of substitutability and interconnectedness. The results of such an assessment should be graduated based on vulnerabilities such as complexity and common exposures as well as the three dimensions of size, lack of substitutability and interconnectedness. Further this assessment exercise is described as being mostly qualitative and judgemental, with quantitative input to structure the discussion about assessment. However, no ready-made toolbox would be available. The assessments would not be set in stone but depend on the environment and need periodic review.

Insurance business model

10. In order to address the issue of systemic risk in the insurance sector, it is crucial to understand the nature of the insurance business model and the contributions of the insurance sector within the financial sector and more widely to the economy. This includes the special risk management approach of underwriting that is adopted across the insurance sector.
11. Insurance contracts transfer risks to insurers or can be used as long-term savings vehicles in case of life insurance. Hence, insurance is a financial service with links to the real economy. Insurance differs from the other financial services by its business model which is based on an “inverted cycle of production”¹. This means that the product - the contractual promise to pay an agreed amount only if a particular event occurs in the future - is sold at a price, the insurance premium, which has to be estimated before knowing the actual cost of the product which depends on probabilities of occurrence and severity of future events.
12. Thus in the insurance sector the establishment of adequate technical provisions (for future claim or benefit payments) and requirements for adequate investments matching the liabilities are crucial. They are complemented by capital adequacy requirements that enable the insurer to absorb unforeseen losses. Unlike in the banking sector, the risks specific to the insurance sector are also significantly related to the liability side of the balance sheet, whereby adequate technical provisions have to be established for liabilities running over a longer term than in banking. They are also covered by longer term matching assets as a core component. Insurers do not depend on debt financing to a comparable extent but are large institutional investors in the economy. In short, insurers link directly to the macro economy on both the asset side and the liability side.

¹ The “inverted cycle of production” refers to the different funding model of insurers (compared to banks) whereby the premiums are received at the commencement of policies and claims are paid during or after the term of the policies.

Contributions of the insurance sector to the economy

13. There are three significant contributions of insurers to and within the economy:

- Through risk transfer to insurers, companies and individuals can undertake projects or engage in economic activities and transactions they would otherwise not be willing to engage in due to the risk involved. This important function, often taken for granted, is a prerequisite for the supply of both labour and capital in most parts of the economy.
- The insurance sector manages risk by pooling exposures in order that aggregate losses are ultimately shared across the economy.
- Insurers have a role in capital formation in the economy on the asset side. Life insurers are used as long-term savings vehicles with many involved in the provision of pensions; the savings of individuals are aggregated and then invested in the real economy mainly in the form of debt and equity instruments.

14. Hence, it may be concluded that the availability of insurance not only exerts a stabilising influence on financial markets but, most importantly, is an essential facilitator of many segments of the real economy.

Discussion of Insurance and Systemic Risk

15. Based on the very wide working definition of systemic risk used by the IMF/FSB/BIS and because of the integral role that insurance plays in the economy, it has to be examined whether and under what circumstances insurance activities or insurers may **generate or amplify** systemic risk.

16. Systemic risk may arise in the insurance sector when insurance market capacity declines or disappears. It could be caused by, for example, the failure of one or more insurers or by the withdrawal of insurance or reinsurance cover (as has occurred, for example, with terrorism cover). In most cases, quick substitution is observed through new capacity becoming available (e.g. catastrophe insurance) but there can also be situations where that does not occur.

17. Insurers are also subject to direct counterparty risk that could cause the failure of related financial institutions by way of immediate contagion effects. If an insurer, an insurance group or a conglomerate is engaged in activities directly related to banking, capital markets or other financial business (e.g. financial guarantee activities), it is more likely to pose systemic risk of an immediate nature. However, an insurer is more likely to be the recipient or the amplifier of systemic risk of an immediate nature emanating from other economic agents rather than being the source of such risk.

18. As the insurance sector is typically among the largest investors, a sudden decrease in the value of investments or movements of interest rates may adversely affect the portfolio of an insurance company and its liquidity. A severe decline in asset prices may even lead to fire sales of assets and affect the entire market, especially if policyholders lose confidence and seek to surrender their policies in large numbers. Withdrawal from purchasing financial instruments issued by banks may further lead to a contraction of credit products available in the real economy. Hence, in the area of investment activity, the insurance industry can act as an amplifier of systemic risk.

19. These different potential sources of risk could emerge individually but could also be combined and therefore compound a systemic problem.

20. Returning to the issue of capacity reduction, there are several reasons why an insurer might fail or cease to provide capacity for some classes of business. One important source of an insurance failure or malfunction is related to core insurance functions of underwriting and provisioning. Underwriting risk arises when insured risks are misjudged or mis-estimated. Hence, technical provisions and related assets will be assessed as inadequate eventually. A further source of an insurance failure could be via reinsurance exposure. A sudden failure of a reinsurer may cause direct insurers to lose protection for lines of direct insurance and thus come under financial stress.
21. Specifically in conjunction with a lack of substitutability in a non-competitive market, the potential failure of a significant insurance company could conceivably create significant disruption to households and businesses in terms of shortage of insurance capacity. This might occur, for example, if a type of insurance cover that is crucial to conduct specific businesses in the real economy became unavailable. On the other hand, an extremely competitive insurance market with low premiums or weak underwriting practices may weaken the resilience of the insurance market in the event of financial or economic shocks.
22. The importance of underwriting has been highlighted by financial guarantee companies recently, and the importance of such financial guarantee companies with respect to the wider financial system has become quite obvious in the recent past. Financial guarantee companies provide significant protection extended to other financial institutions such as banks. In underwriting and pricing of risks, some of these insurers have not fully appreciated the possibility of systemic risk and underlying correlations of risks. As a result, these insurers came under pressure and other financial institutions were affected in two ways. Their ability to raise funds from the market was restricted due to reduced liquidity generally. They also had to restrict the credit they made available to the real economy because credit enhancement was no longer as readily available. It is important to recognise that stress in the real economy or financial system caused by factors outside the insurance sector has been shown most likely to trigger the stress or failure of these types of insurers.
23. Trade credit insurance provides an example of insurance capacity reduction. If trade credit insurers withdraw from the market, as some did in the current crisis, then that can have a direct impact on the ability of the real economy to engage in international trade. In the current crisis, some governments needed to provide guarantees to ensure trade credit insurers either did not fail and/or continued to provide their product so that trade could continue.
24. Another example of shortage of insurance cover is the terror attack in New York on September 11, 2001 and the sharp reduction of aviation insurance cover and property reinsurance cover thereafter, due to the reassessment of the risk of such cover.
25. As a result, systemic risk with a bearing on financial stability and the real economy posed by the insurance sector is of a different nature because of the insurance business model. In the insurance sector the time horizon plays a relevant role, for systemic problems tend to emerge over a longer time horizon than for banking. While banking failures may arise in a matter of hours or days, insurance failures usually take months or years, although loss of insurance capacity could emerge in weeks, if insurers or reinsurers cease offering cover after serious problems are discovered.

Considerations on Conglomerates² in Particular

26. To achieve the macroprudential outcomes, the IAIS believes that it is necessary for insurers to be supervised on a group wide basis, which includes non-regulated entities and/or non-operating holding companies within a group.³ This is because the current financial crisis reveals that non-regulated entities within an insurance group can be a source of systemic risk. As a first step for the macroprudential supervision, the IAIS is establishing a framework for group wide supervision. That effort should be extended to cross-sectoral supervision, in which it will be important for the insurance sector and banking sector to work together to ensure that the idea of 'the same rules applied for the same risks' is given adequate consideration.
27. A financial conglomerate that includes insurance business or perhaps even is predominantly an insurance business could be a source of systemic risk of an immediate or short term nature due to spill-over effects from its non-insurance business. Hence, the importance of group-wide supervision for insurance companies that have non-regulated entities is very important. These entities are potentially exposed to significant amounts of risk and there is a need for consistent cross-sectoral regulation.
28. In financial conglomerates, capital might be transferred from one part of the conglomerate to the other. Transfer of capital may occur from insurers to banks or from banks to insurers and may therefore lead to spill-over effects between the two sectors. In financial conglomerates the potential systemic risk should be considered separately for each of its functional components - insurance, banking or otherwise - as a first step, after which spill-over effects arising from one functional component should be considered, as the supervisors of the entity within a financial conglomerate need to be aware of, and seek to mitigate, risks relating to the group as a whole.

Conclusion regarding working definition of IMF/BIS/FSB

29. Insurance can generate systemic risk in certain circumstances but the effects of systemic insurance risk would not always materialise in hours and days, as may be the case in banking, but more often over weeks, months and years. It is important in insurance to properly identify and understand the systemic importance of any form of market failure in the insurance sector, in order for adequate supervisory or regulatory action to be taken where relevant as a next step.
- 30. As a result of these considerations, the working definition of IMF/FSB/BIS could usefully be complemented with a timing-related fourth sub element (in addition to size, lack of substitutability and interconnectedness), thus capturing all forms of systemic insurance risk and allowing for the fact that systemic insurance risk does not typically generate immediate shock effects, but plays out over a longer time horizon.**
31. The IAIS believes that a revised working definition will form the basis for a useful framework to identify potentially systemically risky institutions. However, we observe that formally publicly identifying such institutions could create moral hazard and market distortion and needs to be considered with caution.

² Conglomerates can include both regulated (insurance, banking, securities) and unregulated entities and activities, depending on the legal framework within each jurisdiction.

³ There is a need for consistent cross-sectoral regulation of such entities.

Existing work in relation to risk with macroprudential implications

32. The IAIS is actively responding to current concerns arising out of the global financial crisis. Due to its worldwide and diverse membership, the IAIS is well situated to address any possible elements of risk with macroeconomic effects from a global perspective. Moreover, the IAIS is cognisant of regional initiatives and is in the position of building on these initiatives at the international level. Current IAIS activities include the following work:

- development of macroprudential tools by looking into how to properly exercise a graduated assessment of the systemic importance of insurance entities including consideration of the time horizon of insurance market failures
- a feasibility study on macro prudential surveillance for the insurance sector
- coordinating closely with the Basel Committee on Banking Supervision on initiatives discussed at the Joint Forum
- continuing and expanding the IAIS's existing macroprudential surveillance work for the reinsurance markets.

Next Steps

33. The IAIS also notes that the distinct business model of insurance means that the policy solutions for systemically risky activities will likely differ between sectors. We look forward to working with the BIS, FSB and IMF in developing the framework of appropriate policy responses that are also applicable to insurers.