

*QUESTIONS FOR OBSERVERS
FOR DISCUSSION WITH FSC ON 5 MAY 2011*

Observers are invited to provide responses to the questions below. Observers should not feel compelled to respond precisely and in written form to each and every question but focus on the main messages they would like to be considered and/or discussed.

A) Interconnectedness

Any form of interconnectedness between firms within the financial sector can be regarded as systemically relevant because it increases the risk of stress or failure spreading from one firm to another. The financial system comprises all the financial institutions such as banks, insurers and others. If there is no interconnectedness, there is no risk of contagion (apart from the risk of simultaneous loss of confidence from customers of different firms). The more links that exist between each firm and the rest of the system, the more that firm is systemically important.

Comments:

- **The statement that “Any form of interconnectedness between firms within the financial sector can be regarded as systemically relevant because it increases the risk of stress or failure spreading from one firm to another” is not correct:**
 - “Systemic relevance”, as defined by the FSB, implies:
 1. a “disruption of the flow of financial services”
 2. “serious negative consequences for the real economy”
 - Interconnectedness can be regarded as systemically relevant if and only if it leads to those two negative consequences; to be precise: interconnectedness is a necessary condition for systemic events, but not a sufficient condition, i.e. interconnectedness does not automatically lead to systemic relevance.
 - Obviously any sort of interconnectedness means, that a failure of one company has an impact on the other company. But this is far from fulfilling the criteria of systemic relevance, because it does not automatically mean that it will impair the operation of the financial system and/or the real economy.
 - If the logic of this statement was applied on a broader scale, then any company of the world was systemically relevant, since the failure of any company would have a certain impact on the real economy => it is essential how massive this impact is.
 - The scenario needs to include the “whole” financial market and not just those subjected to a potential “domino” effect. The comment above is broad, but is missing inclusion of the other important factor of substitutability. If interconnectedness occurs, but substitutability is given, no systemic event ensues in case of a failure.

- The statement that *“The more links that exist between each firm and the rest of the system, the more that firm is systemically important”* is not correct
 - The pure number of links cannot give any indication of systemic relevance.
 - Once again, we have to look at the definition of systemic risk:
 - Does it impair the operation of the financial system?
 - Does it lead to massive negative impact on the real economy?
 - Whether these criteria are fulfilled, depends on
 - The complexity and transparency of the interconnectedness – can the interconnectedness lead to a sudden loss of confidence in the system?
 - Are there interconnections which – due to the size of the interconnected activity or its potential lack of substitutability lead to a disruption of the flow of financial services or massive negative impact on the real economy?
 - Even if the operations of a firm are impaired, it is not systemic if there are substitutions. Systemic risk is not a question of interconnectedness but of the fulfilment of ALL FSB/IAIS criteria.

These links can be loans, investments, derivative transactions, reinsurance transactions, other forms of risk transfer or any other financial transaction between firms. The following questions provide examples of the transactions of interest:

1. *If an insurer or insurance group holds investments in a bank(s) (either by debt or equity) and the bank(s) fails, could that lead to the failure of the insurer (or for significant stress to arise)?*

Comments:

If we look at the interconnectedness between insurers and banks, it has to be differentiated, who should be tested for systemic relevance; if we look at the effects of a bank failure on other financial institutions, then we test the potential SIFIness of banks; still, here are some thoughts on that:

- The investments of the insurance industry into banks are significant, especially via bonds – some major insurers have invested between 10% and 20% of their total investments into bank bonds (equity investments of the insurance industry into banks are of comparably minor relevance).
- Every financial institution and every company in the “real economy” with an exposure to banks would be impacted by a bank failure and could theoretically also fail as a result; the same is of course true for insurance companies, although it is highly unlikely as insurer diversify their investments and are also regulated regarding their asset allocation.
- However: this does not make insurers systemically relevant:
 - It is key to distinguish between generator and receiver of a shock: Insurers would be victims of a collapse of the banking industry just like many other companies in many other industries.

- Once again, we have to come back to the definition of systemic risk: If and only if the failure of a bank and its effect on the insurer interconnected via its investment leads to a major disruption in the operation of the financial system and a major impairment of the real economy, then we have a systemic risk event.
- Even if an insurer's investment can lead to failure, the stress was only on the insurer. The effects on the system would be rather limited as the resolution mechanism would step in, spread the impact over time and – given the diversity of the investments of the insurer – lead to an “orderly” failure.
- The point mentioned under question 1 is covered for the insurance industry by regulation already in place. Risk concentration is a critical regulatory concern in many jurisdictions; many companies and countries have made significant progress in addressing such risks through enhanced integrated risk management and group supervision. Such considerations reinforces the fact that “regulatory treatment” and “risk management effectiveness” should be added as a key criterias in assessing systemic riskiness of activities or institutions.
- In theory, one might be able to build a “Armageddon scenario” in which more or less the entire banking industry collapses; this would definitely also have a major effect on the insurance industry; however in such a “breakdown-of-all-banks”-scenario, the impact on the entire global economic system would be so enormous anyway, that the negative consequences for the insurance industry are not the most urgent issue to think about.

2. *If an insurer or insurance group has loans from a bank and the insurer fails, could that lead to the failure of the bank?*

Comments:

- If a bank was massively exposed to another financial institution or a company of the real economy via loans or bonds, obviously the failure of this other institution of company could lead to financial stress for the bank, and in the extreme case also to its failure.
- This is an issue for banking regulators and bank-SIFI supervisors to consider. Loans to insurers are no different to any other loans.
- Insurers do not take loans for their capital structure. It is not a debt/equity structure since insurers accumulate their funds via the premiums. The need for issuing bonds is limited.
- Thus, in general, the debt amount of insurers is insignificant. Banks' exposure to the insurance industry via loans or corporate bonds has by no means a systemic dimension
- The comparably moderate bond exposure of banks to insurers can be shown with a simple calculation:

- Let's use the simplifying assumption that all bonds outstanding of the Top50 global insurers (~ EUR 460bn.) are in banks' books (clearly overstating reality)
- If we compare this with the Top50 global banks' investments, insurance bonds are only a low fraction, ~3,3% of all bank investments.

3. *If an insurer or insurance group lends securities to a bank(s) and invests the cash collateral (eg in illiquid assets that depreciate in value), could that lead to the failure of both the insurer and the bank?*

Comments:

Managing their exposure properly is the obligation of the operators dealing in specific products. In the case of the bank mismanaging its activities, this is an issue for banking regulators and bank-SIFI supervisors to consider. In the case of the insurer mismanaging its activities, the following applies:

- As explained by the Geneva Association in previous reports, mis-management of short-term funding raised through commercial paper or securities lending is a non-core insurance activity.
- If conducted on a massive scale without adequate supervisory oversight, it might be systemically relevant, just like for any other corporate carrying out this activity.
- There is nothing specific to the insurance industry here. On the contrary, the strong liquidity of the insurance industry sector could be helpful.

4. *If an insurer or insurance group engages in repo activities (eg accepts securities from a bank(s) and those securities depreciate in value before they can be returned to the bank which fails), could that lead to the failure of the insurer?*

Comments:

- The question is concerned with a scenario that could lead to the failure of an insurance company. Whether this then creates systemic risk depends on other factors, i.e. whether the insurer carried out pSRAs in an uncontrolled and massive way.
- In general, as described in the answer for question No. 3, mis-management of short-term liabilities could create issues for the respective counterparties if conducted on a large scale without proper risk management

5. *If an insurer or insurance group sells credit default swaps (CDSs) to a bank(s) and the bank(s) is able to claim large payments on those CDS contracts, could that lead to the failure of the insurer?*

Comments:

- As for question no. 4: This point is concerned with a scenario that could lead to the failure of an insurance company. Whether this then creates systemic risk depends on other factors, i.e. whether the insurer carried out pSRAs in an uncontrolled and massive way.
 - Every insurance company can fail due to bad business decisions – just like any other company in a free market economy can fail if it makes major mistakes.
 - The relevant question here would be whether the failure of an insurance company (for whatever reason – selling CDS or anything else) would have any systemic impact.
 - If we look at a potential impact of an financial institution, which is selling CDS and then fails, on the bank claiming the payments out of the CDS contract, the following applies:
 - If conducted on large scale in non-insurance legal entities, without proper risk management, any financial institution’s activities in this area are potentially systemically relevant.
 - Of course, this is also valid for insurance companies, in case they engage in this non-core insurance activity on a large scale (as also explained in previous reports by the Geneva Association).
 - However, it should be noted that insurance regulation (see US) does not allow selling CDS; companies would have to conduct such activities through non-insurance regulated entities, which may not be supervised if companies conduct a regulatory arbitrage and comprehensive (and effective) group supervision is not in place.
6. *If an insurer or insurance group buys credit default swaps (CDSs) from a bank(s) and the insurer is able to claim large payments on those CDS contracts, could that lead to the failure of the bank?*

Comments:

- Managing their exposure properly is the obligation of the operators dealing in specific products. In the case of the bank mismanaging its activities, this is an issue for banking regulators and bank-SIFI supervisors to consider. It is a question of bank management, not a question of insurance companies buying CDS.
- In theory, of course, if a bank is giving any sort of hedge or protection to another company, this could bring the bank into trouble in case it is not doing its job properly; but this is true for any activity of the bank, e.g. if a bank is giving out bad loans, it can fail in case they are not paid back.

7. *If an insurer or insurance group sells other derivatives to a bank(s) and the bank(s) is able to claim large payments on those derivatives, could that lead to the failure of the insurer?*

Comments:

- The question is concerned with a scenario that could lead to the failure of an insurance company. Whether this then creates systemic risk depends on other factors, i.e. whether the insurer carried out pSRAs in an uncontrolled and massive way.
 - It also has to be noted that if the derivatives are for hedging purposes, the models take into account scenarios of melt-downs. The derivatives for speculation are hardly significant in insurers' books (on the question of hedging versus non-hedging derivatives, also see the answer to the question below).
8. *If an insurer or insurance group buys other derivatives from a bank(s) and the insurer is able to claim large payments on those derivatives, could that lead to the failure of the bank? Does the answer change if the purpose of the transaction was for speculative purposes rather than for hedging purposes?*

Comments:

- In the case of the bank mismanaging its activities, this is an issue for banking regulators and bank-SIFI supervisors to consider.
 - The potential of derivative transactions to bring stress to the counterparty in case of one's failure depends on the scale and dimension of the derivative activities. Insurers' activities in derivatives markets is in general comparably small.
 - If the derivative is traded on a stock exchange the counterparty is determined by the stock exchange. If it is an OTC it is the sellers responsibility to manage the risks accordingly. Key is that OTC regulation is enhanced and transparent. The generator would be the bank, as the insurer would lose its hedging protection in case of a hedging program.
 - From a bank perspective it is not relevant whether the insurer is hedging or speculating.
9. *If an insurer or insurance group buys reinsurance from a reinsurer and the insurer is able to claim large payments on those reinsurance contracts, could that lead to the failure of the reinsurer (and subsequently to the failure or stress of other firms expecting payments from that reinsurer)?*

Comments:

- The question is concerned with a scenario that could lead to the failure of a reinsurance company. Whether this then creates systemic risk depends on other factors, i.e. whether the reinsurer carried out pSRAs in an uncontrolled and massive way.
- If reinsurers don't do their job properly (e.g. bad capital and risk management, bad investment decisions,...), reinsurance companies can fail – just like any other company in a free market economy.
- The question relevant for the systemic risk discussion is not whether reinsurance companies can fail, but whether this potential failure of a reinsurance company can cause any systemic effects through the primary insurance channel – see comment for question (10).
- The reinsurance market has been tested multiple times and Sep. 11 is a case in point as an example of a large stress on reinsurance. The substitution in the market proved to be very high with the creation and growth of the Bermuda-based reinsurance companies shortly after large events. Also the failure of reinsurers has never triggered a systemic situation.

10. If an insurer or insurance group buys reinsurance from a reinsurer and the insurer is unable to claim full payments (eg after a major catastrophe) on those reinsurance contracts (eg due to limits in the contract), could that lead to the failure of the insurer and stress on other firms linked to that insurer?

Comments:

- Just like described in the answer for question (9) for reinsurance companies, the same is true for primary insurers:
 - If they don't do their job properly (e.g. bad management, bad risk management, bad investment decisions,...) they can fail.
 - So if a primary insurance company fails in case of a claim payment because of limits in his reinsurance contracts, the primary insurer did not do his job properly (risk management which also includes appropriate reinsurance coverage). This is not a question of systemic relevance.
- When analysing potential systemic relevance of a reinsurance company via the primary insurance channel, the question must be: What would the impact of the failure of a reinsurance company on the primary insurers? The answer is: the interconnectedness between the reinsurance and the primary insurance industry does not have a systemic dimension:
 - Reinsurance only represents a small portion of insurance risk; only a small part of primary insurance is ceded to the reinsurer
 - Even in a hypothetical scenario of a reinsurance failure, primary insurers would only be impacted to a limited extent
 - Using conservative assumptions, the total loss for the primary insurance industry (using a sample of 20 of the top30 primary insurers – see Geneva Association presentation on that) of an

immediate failure of 25% of global reinsurance capacity would be about 1.86% of primary insurers' shareholders' equity

- The ratio may vary among markets/regions, but will never reach systemically risky dimensions
- Using even more conservative assumptions (capital market stress reduces primary insurers equity by 25% AND loss given default ratio is 70%), the total loss for the primary insurance industry of an immediate failure of 25% of global reinsurance capacity would be about 5.80% of primary insurers' shareholders' equity

11. If a reinsurer sells a catastrophe bond to the capital markets and the reinsurer is able to claim large payments in relation to that catastrophe bond, could that lead to the failure of those (eg banks) which bought the catastrophe bond?

Comments:

- Managing their exposure properly is the obligation of the operators dealing in specific products. In the case of a bank (or other financial services firm) mismanaging its activities, this is an issue for banking (or otherwise appropriate) regulators and bank-SIFI supervisors to consider. Buying a cat bond, from a bank perspective is an investment as many others.
- In general, cat bonds and Insurance Linked Securities make up a small portion of risk transfer of insurers. Exposures to Insurance Linked Securities (ILS) are relatively small in general – despite their rapid growth in the last years:
 - Since 1999, the ILS market has increased by 600%; however, insurers' absolute exposure to ILS has decreased: while they held 54% of ILS in 1999, their share amounts to merely 8% in 2009
 - ILS volumes in relation to traditional insurance are still minimal:
 - In 2009, ILS held by insurers represented only 0,004% of global insurers' invested assets (USD 22.500 bn.).
 - ILS issuance was equivalent to 0,3% of global insurance premium volume (USD 4.500 bn.).
- The ILS market is expected to grow further, however an expansion beyond selected nat.cat.risks on a massive scale (comparable to the MBS/ABS market) is highly unlikely due to the need for standardization.
- ILS are effective and attractive risk management tools as they provide robust yields and risk diversification not correlated to other financial instruments

12. If life insurers securitize the income stream of future annuity payments, the value of such securities become dependent on general financial market conditions (in particular the discount rate). Is it conceivable that a wide-spread use of value-in-force securitization could generate additional stress

for the holder (eg a bank) of such instruments under adverse financial market conditions?

Comments:

- Managing their exposure properly is the obligation of the operators dealing in specific products. In the case of a bank (or other financial services firm) mismanaging its activities, this is an issue for banking (or otherwise appropriate) regulators and bank-SIFI supervisors to consider.
- The degree of stress potentially transmitted through value-in-force securitization also depends on the scale of those transactions. As of today, the market for value-in-force securitization is still small.

13. *The securitization of insurance assets (mostly future income streams) and liabilities will promote convergence between insurance and banking. Could this introduce to the insurance industry elements of financial stress seen in the banking industry as result of the widespread use of ABS and RMBS business models?*

Comments:

- The degree of potential stress introduced through future securitization of insurance assets depends on the scale of those transactions.
- As of today, it is hard to imagine significant stress out of securitization of insurance assets. However, this question requires further analysis and careful observation regarding future developments.

14. *In each of the above cases, failure of either a bank or an insurer which leads to the failure of another firm indicates that both parties could be systemically relevant. The greater the number and size of the links indicate a greater degree of systemic importance. Do you agree?*

Comments:

- No. For systemic risk to occur ALL FSB/IAIS criteria need to be fulfilled, aggravating factors need to be present and mitigating ones absent. Interconnection alone is not a sufficient condition.
- The fact that the failure of one institution leads to the failure of another – interconnected – one, does not mean that one of them or both are systemically relevant. This would only be the case if and only if these failures would lead to a major disruption to the flow of financial services and have serious negative consequences for the real economy
- In order to test for systemic relevance, one has to look at the interconnectedness of the companies' activities and check to what extent they fulfil the following criteria to a systemic degree:

- Size of the interconnected activities
- Substitutability
- Timing of impact
- Furthermore the regulatory treatment of risks and/or institutions and the effectiveness of risk management are key factors in assessing systemic riskiness
- The sheer number of interconnections does not give any indication of systemic interconnectedness (see also comment on page 1)

15. For example, if the financial system comprises 100 firms, of which 90 firms are linked only to one of the remaining 10 and those 10 are linked closely to each other (through loans, equities, derivatives, repos, reinsurance etc), then those 10 would appear to be more systemically important. Do you agree?

Comments:

- No, we do not agree. The example describes interconnectedness, which is only one necessary but not sufficient condition for systemic riskiness.
- Indeed, the question of systemic risk in a network should be answered in the context of the network structure, and there are marked differences in networks of banks and insurance companies:
- For example in the inter-banking market, almost everybody is doing short-term lending with almost everybody else (to take your example of above, you could imagine 10 banks doing overnight lending with each other); this leads often to a complex and in-transparent sort of interconnectedness which – as we saw in the financial crisis – led to a wide “lack of trust” and massive contagion risk.
- The insurance industry, in contrast to that, has a more “hierarchical interconnectedness” with – for example – one reinsurer having interconnections to many primary insurers (to take the example of above: Maybe one reinsurer is linked to 90 primary insurers). This different “kind of interconnectedness” – which is less complex and more transparent, combined with the difference in terms of timing of impact, has to be taken into account when talking about potential systemic relevance.
- However, it is absolutely essential to note that, from the network structure alone, the question of systemic relevance of individual companies cannot be answered! Especially the “timing of contagion” and substitutability is absolutely essential:
 - In the example of the interbank market, contagion happens more or less immediately.
 - In the (re)insurance industry, there is no immediate contagion, giving ample time for an orderly resolution and thus limiting the effects of a failure despite existing interconnectedness.

B) Leverage, liquidity and substitutability

16. Invested assets are a multiple of shareholders' equity. Certain asset classes are prone to high market volatility. If the market value of such assets deteriorates, fair value accounting requires potentially high capital charges. Could the loss of shareholders' equity lead to the failure of an insurer?

Comments:

- It is the obligation of every insurance company to manage its investments, of course also in the light of potential market volatility of the assets invested in.
- The question above is concerned with a scenario that could lead to the failure of an insurance company. Insurers can fail, for example if they mis-manage their investments, just like any other companies can fail.
- Whether this then creates systemic risk depends on the impact of an insurer's failure on others. This depends on the question as to whether the insurer carried out SRAs in an uncontrolled and massive way.
- Existing and up-coming prudential regimes are addressing these concerns through economic and risk-based solvency requirements.

17. An actual or perceived loss in capital and solvency can lead to increased life insurance policy surrender rates. Policy surrenders can drain liquidity rather quickly and at times of a general liquidity shortage also in the banking industry, a life insurer may be unable to access the liquidity for such payments and may become insolvent. Do you agree?

Comments:

- Historically surrender rates have stayed on a very low level, even in times of turmoil. Some policies are not available for surrenders or are only "surrenderable" with high surrender charges, or are combined with loss of beneficial tax treatment.
- If, despite these mitigating reasons, surrender would still increase, the aspect of timing is essential: any surrender request would take some time to be administrated and liquidated. This is a significant difference to runs on banks, as the banks have to provide cash immediately
- Even if the insurer became insolvent (for whatever reason), this would not be an example of systemic risk. Potential systemic risk depends on other factors, i.e. whether the insurer carried out SRAs in an uncontrolled and massive way.

18. If an insurer (or reinsurer) has cornered the position in a particular product or group of products and then becomes insolvent (possibly due to underpricing), is there a credible scenario in which both (a) the insurer is not replaced by other market participants following its failure, and (b) the lack of the product(s) creates a systemic failure, either on a domestic or global basis?

Comments:

- The pre-conditions for such a scenario are not given:
 - (near-)monopolisation of a market:
 - Regulators and competition authorities usually do not permit this.
 - In case where such positions are permitted (e.g. for public entities carrying out specific business), normal market conditions no longer apply and the authorities/governments that set up such systems have to deal with the particular mechanisms directly.
 - (near-)monopoly company becoming insolvent with no substitutability possible:
 - Monopoly theory and empirical evidence show that monopolistic providers enjoy superior rent, hence other entrants should find the market attractive.
 - If conditions are such that the market is unattractive, because of e.g. rate proscription (at insufficient levels) or inappropriate regulation, then these conditions can usually be rectified to make the market attractive again.
 - Self-insurance or other risk transfer mechanisms that can replace insurance are not available:
 - The absence of insurance creates real economic problems in two scenarios:
 - a) when insurance cover is mandated (at which point it is a regulatory question how to deal with a market that on the one hand stipulates an obligation but on the other does not provide conditions for producers to become active and satisfy that obligation) or
 - b) when an event of a very large magnitude happens or an accumulation of sizeable events occur which cannot be borne by the economic actors (in which case, insurance is not the critical element but the risk bearing capacity of the affected parties).
- This does not mean, that the failure of an insurer would not have any impact at all. Potential temporary lack in insurance coverage cannot be completely ruled out. The failure of an insurer could be felt in certain industries in certain countries in rare cases.
- However, coming back to the FSB definition, this impact would have to massively impair the financial system or the real economy in order to qualify as systemic. Experience tells that periodic lack in coverage has always been replaced fast by competitors due to a lack in monopoly scenarios in any insurance market.

C) Other issues – data collection and confidentiality

The FSB and IMF focus primarily on size, interconnectedness and (lack of) substitutability as the key criteria for identifying systemically important financial institutions (SIFIs). The IAIS regards non-traditional insurance activities as another key criterion.

Comments:

- The industry supports the approach as we have stated that the focus should be on non-core insurance activities. However we are concerned that the FSB may not endorse the approach as it did not support the IAIS first proposal to include “time” as a criteria. An alternative would be to develop appropriate indicators under the criteria “interconnectedness”.

Indicators of size are readily available for insurers and insurance groups from public information. These include assets and revenue of the whole business.

Comments:

- Size is not an appropriate criteria in insurance as large insurers benefit from true risk diversification, both geographically and across lines of business.

Indicators of other criteria are not readily available from public information. Hence, the IAIS is planning to conduct a confidential data collection exercise from insurers and insurance groups, via national supervisors, from late June to late July. This will enable the proposed methodology to identify SIFIs to focus less on total size and more on other criteria.

Comments:

- In addition to these criterias, the IAIS should repeat its request to the FSB to add “time” in its criteria as well as “regulatory treatment” of risk activities, “effectiveness of risk management” in institutions. These qualitative indicators are key to assess potential systemic riskiness.

What would be the best way to organise the collection of relevant comparable data as planned on a consolidated basis for insurance groups that would enable indicators of interconnectedness and non-traditional insurance activities to be determined? What are the issues of concern regarding confidentiality to insurers and insurance groups?

Comments:

- This data collection is premature as the interface between macro and micro prudential regulation in insurance is not clear. Furthermore the focus on large groups is inappropriate and will be misleading as systemic risk is complex and dynamic. Nevertheless, should the IAIS decide to move forward with its approach, group supervisors should be conducting the data collection and analysis. The IAIS should play its role in facilitating macro-prudential surveillance but not in collecting data directly from companies (or groups)

not in conducting analysis. Supervision, and therefore data collection and assessment on institutions, should remain at the micro-prudential level (ie with national supervisors and group supervisors for insurance groups). Group supervisors must be involved in presenting and explaining the data to the IAIS and/or FSB, as accounting differences, risk reporting practices and qualitative explanations (such as regulatory treatment of risk activities) will play a major role in the assessment. Such exercise is highly sensitive and raises significant confidential issues as many of the data collected may not be publically available and the implications of the IAIS methodology are unknown and undefined. Significant market distortions may be introduced with this exercise.