

**Recovery and Resolution Planning for Systemically
Important Insurers:**

**Guidance on Identification of Critical Functions
and Critical Shared Services**

Consultative Document

16 October 2014

The Financial Stability Board (FSB) is seeking comments on its Consultative Document on the Identification of Critical Functions and Critical Shared Services for Systemically Important Insurers (‘consultative document’).

The *Key Attributes of Effective Resolution Regimes for Financial Institutions* (“*Key Attributes*”)¹ adopted by the FSB Plenary and endorsed by G-20 Leaders at the Cannes Summit are an essential component of the FSB’s package of policies to reduce the risks of moral hazard and the potential for systemic disruption associated with systemically important financial institutions (SIFIs). The *Key Attributes* call on jurisdictions, among other things, to put in place an on-going recovery and resolution planning process to reduce the potential for failure and promote resolvability as part of the overall supervisory process. Such a planning process is required for all global systemically important financial institutions (G-SIFIs) and for any other firm assessed by national authorities as potentially having an impact on financial stability in the event of its failure.²

On 18 July 2013, the FSB, in consultation with the International Association of Insurance Supervisors (IAIS) and national authorities, identified an initial list of global systemically important insurers (‘G-SIIs’) as part of the list of designated G-SIFIs, and the IAIS published a set of policy measures, including recovery and resolution planning requirements, that apply to those G-SIIs.³

Essential to the development of resolution plans is the identification of critical functions and critical shared services to help ensure an orderly resolution with reduced risks of systemic disruption and preservation of value. In July 2013, the FSB adopted guidance on the identification of critical functions and critical shared services⁴ to assist home and host authorities of G-SIBs in meeting the recovery and resolution planning requirements under the *Key Attributes* (July 2013 guidance).

Although the July 2013 guidance contains many concepts that can also apply to some activities performed by insurers and thus should be read alongside this draft Guidance note, insurers have features that are distinct from banks. The FSB, therefore in consultation with the IAIS, has undertaken work on the application of the *Key Attributes* to systemically important insurers, including those that have been designated as global systemically important insurers (G-SIIs), for which there is a need for guidance on the implementation of recovery and resolution planning requirements.

In considering this consultative document, respondents are asked to keep in mind that recovery and resolution planning and assessment processes are iterative in nature and will likely require further refinement and adjustment over time as more experience is gained and more issues are identified for deeper examination. The following questions for consultation

¹ The *Key Attributes* are published at: http://www.financialstabilityboard.org/publications/r_141015.pdf.

² For the list of G-SIFIs published by the FSB in November 2011 see http://www.financialstabilityboard.org/publications/r_111104bb.pdf

³ http://www.financialstabilityboard.org/press/pr_130718.pdf

⁴ See the *FSB Guidance on the Identification of Critical Functions and Critical Shared Services*, published in July 2013: http://www.financialstabilityboard.org/publications/r_130716a.pdf

have been posed against this background.

The FSB invites comments on the consultative document and the following specific questions:

1. Are the definitions of “critical functions” and “critical shared services” appropriate for the insurance sector?
2. Should critical functions be identified based on whether the disruption of the activity would adversely impact the stability of the financial system or the functioning of the real economy, or both?
3. Is the methodology for identifying critical functions laid out in the paper appropriate for the insurance sector? If not, what aspects are missing or need to be changed?
4. Do the six broad categories of activities outlined below cover all relevant and potentially critical functions? What additional categories, if any, should be added?
 - (i) Insurance coverage as a precondition for economic activity;
 - (ii) Insurance coverage as a precondition for individuals to go about their daily lives;
 - (iii) Insurance payments that are vital to individuals’ financial security;
 - (iv) Investment in and lending to the real economy;
 - (v) Acting as a counterparty in derivatives, repo and securities lending markets; and
 - (vi) Pooling of risk, particularly reinsurance, as an economic function;
5. Is the methodology for identifying critical shared services laid out in the paper appropriate for the insurance sector? If not, what aspects are missing or need to be changed?
6. Is the framework flexible enough to cover the different types of business undertaken by G-SIIs? Are the non-prescriptive lists of examples of functions that could be critical helpful?
7. Is the framework flexible enough to take account of the external environment in which failure is occurring, for example, an idiosyncratic event or a broader situation of more severe distress in the financial system?
8. Are there any other issues in relation to the identification of critical functions and critical shared services that it would be helpful for the FSB to clarify in further guidance?

Responses to this consultative document should be sent to fsb@bis.org by 15 December 2014. Responses will be published on the FSB’s website unless respondents expressly request otherwise.

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Introduction

This Guidance should assist home and host authorities in meeting the recovery and resolution planning requirements under the *FSB Key Attributes of Effective Resolution Regimes for Financial Institutions* ('Key Attributes' or KAs).⁵ It complements the Guidance set out in Annex II (*Resolvability Assessments*) and Annex III (*Essential Elements of Recovery and Resolution Plans*) of the *Key Attributes* as well as the separate Annex to the KAs entitled "Resolution of Insurers" published on 15 October 2014.

A key component of recovery and resolution planning is a strategic analysis that identifies the firm's essential and systemically important (or "critical") functions (see Section 2.3, Annex III). A strategic analysis of the firm's essential and systemically important functions is necessary for resolution planning and for assessing resolvability. It should help ensure that the resolution strategy and operational plan include appropriate actions that help maintain continuity of these functions while avoiding unnecessary destruction of value and minimising, where possible, the costs of resolution to home and host authorities and losses to creditors.

This Guidance should assist authorities and CMGs in their evaluation of the criticality of functions that firms provide to the real economy and financial markets. It aims to promote a common understanding of which functions and shared services could be critical by providing common definitions and evaluation criteria.

Scope

The Guidance addresses functions and services provided by insurance or reinsurance companies, groups and conglomerates that could be systemically significant or critical if they fail (hereinafter collectively referred to as "insurers").⁶ The Guidance therefore does not cover functions typically provided by banks or financial market infrastructures (FMIs), though some elements of this Guidance paper may be relevant to other sectors. To the extent that insurers are involved in functions addressed by other guidance,⁷ authorities are directed to refer to such guidance, which should be read alongside with this Guidance note.

5 See the *Key Attributes*, http://www.financialstabilityboard.org/publications/r_141015.pdf.

6 See Insurance Annex of the *Key Attributes* at http://www.financialstabilityboard.org/publications/r_141015.pdf. Accordingly, "insurance activities" also include reinsurance activities. See also, the assessment methodology by the International Association of Insurance Supervisors (IAIS) for global systemically important insurers, which examines reinsurers and reinsurance activities: IAIS (2013), *Global Systemically Important Insurers: Initial Assessment Methodology*, http://www.iaisweb.org/view/element_href.cfm?src=1/19151.pdf.

7 See the FSB's Guidance on Identification of Critical Functions and Critical Shared Services for Systemically-Important Financial Institutions, http://www.financialstabilityboard.org/publications/r_130716a.pdf.

Within insurers, the Guidance focuses primarily on those which are identified by the FSB as global systemically important insurers (G-SIIs). However, many aspects also will be relevant for those identified by any national authority as systemically important (if any).⁸

Criticality

The identification of a function as critical is meant to assist authorities in developing resolution strategies that minimise systemic disruption and preserve value. The identification of a particular function as critical does not generally imply that the function and all related liabilities will be protected in a resolution and should not lead market participants of that function to rely more than before on the assumption that the function will be maintained under all circumstances and that they will be immune from losses if the firm providing the function fails.

Like non-insurance financial markets, certain insurance markets are highly concentrated, and the rapid withdrawal of underwriting capacity or expertise by a key player, such as a G-SII with a large market share or other critical market role, could disrupt the functioning of that market and the ability of third parties to obtain insurance in a timely fashion and on reasonable terms. For example, certain commercial insurance lines require specialised underwriting skills and are dominated by a small number of firms with high market shares. If one of those firms were to fail and to cease underwriting, other market participants might be unable to assume the failing insurer's market role and, thus, coverage might become temporarily unavailable. Absent this coverage, the commercial activities that rely on this insurance could cease for a period of time. The extent to which such a disruption to the real economy is systemic or not would depend on the facts and would be determined by the three-step analysis described in Section 2 of the Guidance by the regulators.

However, a resolution strategy should take into account the materiality and the potential impact that the failure to provide a certain function could have on the financial system and the functioning of the real economy. Noteworthy is that a firm may provide certain economic functions that are so elemental that they will need to be preserved in all circumstances. Resolution strategies therefore need to include essential options that identify those most elemental functions and the conditions that need to be in place to ensure continuity of those functions in all resolution scenarios.⁹

The annex to the Guidance provides indicative lists of functions that could exhibit some degree of criticality, but these indicative lists are not intended to be either prescriptive or exhaustive. Authorities need to undertake their own assessment for each firm that takes into account aspects of the market and the firm, the characteristics of a jurisdiction's financial system, the economic and competitive landscape, and the range of functions provided by other firms. As a result, the functions and services suggested in this Guidance may be, but are

⁸ The FSB published an initial list of G-SIIs on 18 July 2013, http://www.financialstabilityboard.org/publications/r_130718.pdf. The group of G-SIIs will be updated annually by the FSB and may include reinsurance institutions.

⁹ See FSB Guidance on Developing Effective Resolution Strategies, http://www.financialstabilityboard.org/publications/r_130716b.pdf

not necessarily, critical for different firms in different markets. Similarly, there are functions not included in this Guidance that could be critical in particular markets. The firm-specific lists of critical functions will be one important input into the resolution planning process and the resolvability assessments.

Firms may have a different view of what services or functions they consider to be critical and may undertake different methods for determining criticality. For example, a firm may prioritise its franchise value or profitable business lines. While such considerations can play a role in recovery and may be relevant in more long-term restructuring, they are not the main focus of resolution planning which is focused on promoting financial stability and reducing negative externalities.

Home-host communication

For facilitating cross-border resolution planning, supervisors should seek to develop a common understanding of what is critical for their jurisdiction; what is critical across borders; and what shared services are provided between home and host countries. Home supervisors should share with relevant host authorities their assessment of which functions and shared services they deem critical, including critical functions in one jurisdiction which may depend upon services provided by shared service providers in another jurisdiction.

In addition, this Guidance may be useful for host authorities in assessing the criticality of functions carried on in the host country even if the functions are not critical to the resolution of the group. Relevant host authorities should share with home authorities the functions they consider critical in their local jurisdictions.

1. Taxonomy

This Guidance proposes a two-part definition of “critical”, based on a distinction between “critical functions” and “critical shared services”:

- **Critical functions** are activities performed for third parties where failure would lead to the disruption of services that are vital for financial stability and the real economy due to the insurer’s size or market share, external and internal interconnectedness, complexity or cross-border activities. Examples might include insurance cover that is mandated by statute,¹⁰ or insurance cover that participants require in order to provide essential services or to undertake activities that underlie the functioning of the real economy.¹¹ Fulfilling payments to policyholders that have fallen due may also be a critical function if those payments are necessary for the policyholder to meet day-to-day living expenses. Taken as a whole, the insurance sector functions, in part, as a conduit for investments in businesses and infra-structure projects by acting as a medium between policyholders with a desire to save and businesses with a demand for investment. Disruption to financial stability could occur through connections with other financial institutions and markets or through a loss of confidence in the sector or simultaneous responses by many insurers to a crisis.
- **Critical shared services** are activities performed within the firm or outsourced to third parties where failure would lead to the inability to perform critical functions and, therefore, to the disruption of functions vital for financial stability and the real economy. Examples include the provision of information technology and other services such as facility management and administrative services.

2. Framework for critical functions

2.1 Definition

For the purposes of this Guidance, a critical function has the following two elements:

- (i) it is provided by an insurer to third parties not affiliated to the firm; and
- (ii) the sudden failure to provide that function would be likely to have a material impact on the financial system and the real economy, give rise to contagion, or undermine the general confidence of market participants.

In an insurance context, sudden failure to provide a function may have a material impact on third parties if:

- (i) no mechanisms that ensure the continuity of certain functions are in place; and
- (ii) the insurance coverage is vital for third parties to carry out economic activity (see section 3.1) or to go about their daily lives (section 3.2);

¹⁰ For example, motor insurance covering third party bodily injury.

¹¹ For example, professional indemnity insurance for doctors, marine cargo insurance or aviation insurance.

- (iii) policyholders are dependent on insurance payments being made to them (section 3.3);
- (iv) the failure of an insurer may cause it to dispose of large quantities of investment assets quickly at fire-sale prices, or cause liquidity or funding strains on borrowers before they can find alternative sources of credit (section 3.4);
- (v) the insurer plays a critical role as a counterparty in the derivatives, repo or securities lending markets such that its sudden failure would impact the normal functioning of the markets or cause significant disruption or contagion (section 3.5); or,
- (vi) the pooling of risk, particularly reinsurance, is a sufficiently important economic function in its own right such that there could be an effect on the economy if the activity was no longer performed (section 3.6).

2.2 Determination of critical functions

Applying the definition given above, the criticality of a function can be assessed in a three-step process:

- (i) analysis of the impact of the sudden discontinuance of the function (“impact assessment”);
- (ii) evaluation of the market for that function (“substitutability analysis”);
- (iii) assessment of the impact of a failure of a specific insurer that performs that function (“firm-specific test”).

Certain aspects of the above assessment of criticality are highly market-specific and require in-depth knowledge of the specific circumstances in which a critical function is provided. In particular, the criticality of a function that an insurer provides can vary across countries.

Step 1: Analysis of the impact of the sudden discontinuance of a function (“impact assessment”)

The assessment of the criticality of a function is always driven by the impact of a failure on external parties, i.e., the reliance of third parties on the continuing provision of a function. A function is critical if its disruption is likely to have a material negative impact on a significant or key number of third parties. In addition to the direct impact on third parties that rely on the function, systemic aspects must also be considered, including the impact of contagion effects and the loss of general confidence by market participants. These effects are likely to differ depending on the conditions in the financial system or the economy at the time the failure is occurring. The loss of coverage from a particular class of insurance could also impact a policyholders’ ability to continue their own activity. This could occur either because the policyholders are required to have insurance coverage in order to perform that economic activity, or because policyholders will voluntarily cease the activity if they cannot obtain insurance coverage. Accordingly, the loss of coverage for a particular class of insurance could potentially lead to disruptions in other economic activity.

Insurers may also conduct significant activities in personal wealth or welfare. A disruption in such activities could lead to a decline in individual spending and weaken the economy. In addition, a general loss of confidence among policyholders in the insurance industry due to a

failing insurer could also lead to significant customer reaction, such as mass surrenders, that could affect the solvency and liquidity position of other insurance firms that are not directly exposed to the failing firm.

Insurers often perform activities with, or provide services to, other insurance market participants through financial arrangements such as reinsurance. Reinsurance is a means for insurers to pool risk across separate insurers. The larger the risk to be underwritten, the more the risk needs to be spread. Accordingly, reinsurance enables the market as a whole to underwrite large risks. Absence of a well-functioning market for reinsurance also affects market efficiency and capacity. A failure of a large insurer could not only have potential knock-on effects to other insurers, but could also disrupt the efficient functioning of the insurance market.

Some insurers provide certain important non-insurance functions to third parties. Non-insurance functions may be insurance-related, such as claims management, actuarial services, pension fund management, asset management or other administrative functions. These non-insurance functions may be seen as 'critical' by the third party for its activities. Disruption in the provision of non-insurance functions should be considered as part of an assessment of critical functions as they could potentially be a source of contagion to stability in the financial system.

For the cases mentioned above, the following questions illustrate factors to consider when assessing the criticality of a function:

- What is the nature and extent of the insurance activity (including reinsurance activity)?
 - Mandatory insurance coverage?
 - Type of products or services provided to policyholders or third parties?
 - Global, regional or national coverage?
 - Number of external parties relying on that activity in absolute and relative terms?
- What is the nature of the counterparties in that activity?
 - Corporates: SMEs, large national companies, large multinational companies?
 - Financial counterparties?
 - Individuals?
- What impact would disruption have on financial or insurance markets?
 - Direct consequences on financial counterparties or other competitors?
 - Possibility of contagion?
 - Speed at which the disruption impacts other counterparties?
- What impact would disruption have on end users (policyholders or involved third parties)?
 - Are end users able to continue entirely their usual activities without this insurance coverage?

- Could some elements of the end users' activity be affected by the failure? Could the end users easily adapt their activity without suffering a negative impact if there is a disruption of the provided function?
- How long are the end users able to perform their usual activities without the provision of the function?

Step 2: Evaluating the market for the function (“substitutability analysis”)

In principle the market, given a reasonable timeframe, should be able to substitute the functions provided by a failing insurer. The time frame is dependent on the nature of the function, i.e. whether there is an immediate impact like the default as a counterparty for derivatives or a more gradual effect like the lack of some kind of insurance coverage. It might also include a decision on how much disruption is acceptable in case a critical function fails. In the end it will have to be the responsibility of the supervisor to define what “reasonable” is, given the specificities of each individual case.

However, the structure of the market itself, the availability of other providers, or the existence of other operational requirements may make the timely substitution of functions by a failing provider very difficult or impossible, which would affect the stability of the financial system and the real economy. An assessment of criticality should therefore include a substitutability analysis which encompasses an analysis of the number and concentration of insurance providers, the availability of potential new market entrants and additional capacity of existing market players, availability of readily substitutable products, the speed, costs and hurdles of substitution, and the willingness of other firms to step in and provide the functions of the failing insurer. This substitutability analysis should also take into account whether the failure is idiosyncratic or occurs in the context of a widespread crisis.

The following questions are relevant to performing this analysis:

Concentration

- How concentrated is the relevant market for providing the specific function and what are the relevant trends (increasing or decreasing) in concentration?
- How similar are the institutions with dominant market shares? If one typical participant insurer were under stress, would other insurers also be likely to be affected by the same stress?
- Would the failure of a large player in this market have an impact on the ability of the market or related infrastructure to function?

Substitutability

- Are certain functions or products of the failing firm substitutable within a reasonable timeframe? Is there capacity in the industry to replace the amount of protection that the failing insurer provides?
 - Are there others products or markets that provide a function broadly equivalent to the activities of the failing firm? Are the pricing levels, attachment points, and terms and conditions provided by the failing firm available?
 - Are other players in the market offering similar products or alternative products?

- Concerning the provision of reinsurance, are there alternative providers of reinsurance coverage for the risks concerned that have the capacity to absorb the coverage lost by the failure of one reinsurer?
- How quickly can end users switch to another firm providing a similar function? Are there any encumbrances (financial, legal, operational) to switching from one provider to another?
- Would a failing insurer be able to maintain the function provided to end users or are there any mechanisms that enable the function provided to end users to be maintained until a new provider is able to replace it?
- Is the market attractive for potential new providers? Is there evidence that a turnover of providers in the market exists?
- What are the barriers to entry for new providers?
 - Are particular factors (arrangements, infrastructure) necessary to provide this service in the market?
 - Are particular skills or expertise necessary to provide the function?
 - Are regulatory approvals necessary for providing the function?
- How quickly would a new provider be able to step into the market?

Step 3: Assessing the criticality of the function performed by a specific insurer (“firm-specific test”)

The determination of a critical function is generally specific to the firm that provides the critical function. Specifically, the analysis must determine if an insurer is sufficiently important in providing a function that the firm’s failure would have a material impact on the functioning of the relevant insurance marketplace, including with respect to third parties, the potential for contagion, and the general confidence of market participants. If a function is critical for one insurer, it cannot be assumed that the same function is critical for others. The analysis must therefore be carried out on a firm-by-firm basis.

The following questions are relevant to this firm-specific analysis:

- What is the overall market share of the insurer for the specific function and its share in specific market segments (e.g., by counterparty or region)?
- Could the absolute or relative volume of its business hamper the effectiveness of crisis measures?
- How does the function in question relate to other functions of the insurer or in the market?
 - Is the provision of a function contingent on the availability of services (provided either externally or internally)?
 - What chain of events within the troubled insurer would most likely cause the provision of the function to be disrupted?
- What is the role of the insurer in the operation of the relevant marketplace (e.g., the provision of expertise, capital or data, acting as lead insurer, etc.)?

- Does the failure of the insurer to provide a function send out a “systemic signal”? Could the decline in reputation of a troubled firm pose risk to other market participants?

3. Functions that could be critical

This section describes functions that could potentially exhibit some degree of criticality. The Annex to this document lists examples that could be a starting point for evaluating and identifying critical functions. However, authorities will need to undertake their own assessment for each insurer that takes into account aspects of the market and the firm, the characteristics of a jurisdiction’s financial system, the economic and competitive landscape, and the range of functions provided by other firms. As a result, the functions and services suggested here may be, but are not necessarily, critical for different firms in different markets. Conversely, there are functions not included in this Guidance that could be critical in particular markets. In addition, certain markets might use different terminology to that used in this document to refer to a comparable function for which this Guidance might also be relevant.

There is a wide range of functions which could be considered, and this Guidance seeks to be comprehensive. But it is unlikely that any particular insurer will have a large number of critical functions once all three steps in this methodology are applied.

It is not necessary to apply the steps in the order as set out in the Guidance. For instance, it would be possible to consider only functions which, for the specific insurer being considered, affect a large number of users of those functions or a large proportion of the market (step 3), then consider which of these are readily substitutable (step 2) and then whether the function affects financial stability and the real economy (step 1). Or, to consider only functions which are not readily substitutable (step 2), then whether financial stability and the real economy are affected (step 1) and then the materiality for the given firm (step 3). Approaching the analysis in a different order would reduce the number of functions (or, if considered at the product line level, the number of products) which would appear on such a list of possible critical functions. However, the end result should be the same. For a function to be critical, all three steps must be applied and the number of functions which are finally considered critical should be very small.

Furthermore, a function considered critical in one situation might not be considered critical in another situation due to differences with the particular firm, market, or jurisdiction. The analysis necessary to decide which functions are critical requires considerable judgement on the part of the relevant authorities and depends considerably on the risk the function poses to the financial stability and the real economy of the particular jurisdiction. Some functions might be more likely than others to be considered critical due to a higher transmission of contagion effect or other reasons.

It is important to note that, to be considered as critical, a function, if disrupted, should adversely affect financial stability and the real economy. Analysis of the effects of the disruption of a function on financial stability should take into account the effects on the financial markets and financial counterparties, confidence in the financial system, and

confidence in the insurance sector. The systemic effect of instability in the financial system may adversely affect the real economy. Disruption of critical functions that do not involve financial counterparties may nevertheless lead to a loss in confidence in the insurance sector and undermine financial stability.

3.1 Insurance coverage as a precondition for economic activity

a) Scope

Certain types of insurance coverage may be required for conducting specific economic activities. This can either be industrial activities, such as producing or selling certain goods, conducting certain activities, such as running a commercial airline or a shipping business, or practicing certain professions, such as the medical or legal practice. The reason for insurance being a prerequisite can happen for a number of reasons: 1) either it is a legal obligation to have in place insurance coverage in order to carry out such activity, 2) the activity is regarded as too risky to be carried out without any insurance coverage because losses or damages to be paid are potentially so great that nobody would voluntarily carry out such economic activity without insurance, or 3) a third party requires insurance because it views the unmitigated risk as unacceptable (i.e., loan financing).

In principle, there is no exhaustive list of the types of insurance coverage that are eligible to be critical in this sense, as legal requirements and risk as well as risk appetite vary in different jurisdictions. However, typically the bulk of such insurance coverage would rank among liability and credit insurance.

b) Drivers of criticality

Criticality depends on the importance of the affected activity for the economy. The importance may either be due to the fact that the lack of insurance coverage may bring an important industry sector to a standstill or that a considerable number of members of certain professions (e.g., doctors, lawyers) are prevented from practising. **Criticality is also heightened if insurance coverage needs to be substituted very quickly in order for the business to survive or for the activity to be continued.** Substitutability of the insurance may be constrained if it is a coverage tailored to a national market with national specificities, e.g., in national law of torts or national public law prescribing the insurance.

c) Aspects to consider for the impact assessment

- How does the insurance coverage impact the economic activity - does it impair or entirely prevent the conduct of business? Are all economic participants equally affected? Are other forms of insurance acceptable to continue the economic activity?
- What is the importance of the sector in question to the economy in each country, e.g., proportion of GDP, number of people employed?
- What percentage of the industry sector or profession is affected?
- Is the insurance necessary for critical financial services? Does the provision of this insurance make large, complex financial firms dependent on the provider of the insurance in some way?
- What is the importance of the profession to the economy, infrastructure, and health system?

- What is the resilience of the businesses affected; e.g., how long can they survive without producing or trading, given that production and trade is only possible with insurance, whilst continuing to pay staff and suppliers?
- Is there a possibility that the standstill or non-exercise of the profession has a contagion effect?

d) Aspects to consider for the substitutability analysis

- What is the insurer's market share?
- Is there sufficient capacity in the market, or would new firms have to enter the market?
 - Are there regulatory constraints that may impede entry of substitute firms or expansion of existing activity?
- Is the insurance coverage tailored to a national market with national specificities, or is it a fairly standardised product? If the product is specific, how many skilled underwriters are available to assess and price the risks for the customers of the failing firm?
- Is the insurance coverage unique in some other way (e.g., higher than normal coverage? Unique contract terms provided by only a limited number of insurers?)?
- What is the timeframe in which replacement coverage can be provided?
- Is seamless insurance coverage available, i.e. also for insured events originating before the failure of the insurer? Is the coverage available at similar terms and conditions? At similar pricing? Is there sufficient capacity?

3.2 Insurance coverage as a precondition for individuals to go about their daily lives

a) Scope

Certain types of insurance can be a precondition for individuals to go about their daily lives. Legislation in some countries may mean that individuals are unable to undertake some activities without insurance. This may not only severely disrupt their daily lives, but may also have a negative impact on the economy; e.g., if employees are unable to travel to work or if they purchase fewer goods and services due to the disruption. For example, in many countries, third party liability insurance is required in order for an individual to drive a car. In addition, individuals' ability to move may be affected if mortgage indemnity, building or flood or earthquake coverage is unavailable. Further, insufficient access to medical coverage in certain countries may limit the range of daily activities individuals can exercise or their ability to travel.

b) Drivers of criticality

Criticality depends on the importance of the affected activity of individuals, and not on the mere inability to go about one's daily life as usual. Hence, in order for the insurance to be considered critical in terms of financial stability, there has to be a systemic or contagion effect.

Criticality is increased if the insurance needs to be substituted very quickly in order for the systemic effect to be mitigated or avoided. Substitutability of the insurance may be constrained if it is a coverage tailored to a national market with national specificities; e.g., in national law of torts or national public law prescribing the insurance.

c) Aspects to consider for the impact assessment

- Which sectors of the economy would be affected by a disruption of the insurance coverage? What is the importance of the affected sector (e.g., auto, mortgage, travel or medical insurance) to the real economy?
- How severe would the impact be on the sector affected? Would production or sales in the sector be affected? Would there be disruption in the sector or a significant slowdown?
- What is the resilience of the businesses affected (e.g., how long can businesses survive without motor vehicle traffic)?
- Is there a possibility that the standstill or non-exercise of activity within a sector has a contagion effect?

d) Aspects to consider for the substitutability analysis

- What is the insurer's market share?
- Is there sufficient capacity in the market so that policyholders can take out a new contract with a different insurer, or would new insurers have to enter the market?
- Are there regulatory constraints that may impede entry of substitute firms or expansion of existing activity?
- Is the insurance coverage tailored to a national market with national specificities or is it a fairly standardised product?
- What is the timeframe in which replacement coverage can be provided?
- Are there policyholder protection schemes facilitating a transfer or the continuity of business or replacement of coverage?
- What is the impact of pricing and capital availability?

3.3 Insurance payments that are vital to individuals' financial security

a) Scope

Payments from insurance products may be critical when individuals rely on them as a primary source of current or future income, whether to meet general living expenses or to mitigate individual costs, such as healthcare costs. The failure of an insurer offering such products on a large scale, particularly in combination with a probable increase in withdrawals of certain insurance products in the time leading up to resolution, may have broader implications for the global economy. Insurance coverage can often be integrated with essentially savings products and provide for a defined regular income. The withdrawal of the savings element may be at the discretion of the insurer or on demand by the policyholder. In some circumstances, the ability to rapidly access these savings may be critical to the financial security, general living expenses, or healthcare costs of individuals. However, as described in

section 3.4, the rapid withdrawal of such savings may also lead to disorderly liquidation of asset portfolios by the insurer with an adverse effect on financial stability. In assessing critical functions therefore, there may be a tension between preserving rapid access to savings to meet the financial security needs of individuals and suspending rapid access to savings to mitigate disorderly withdrawals in the market.

The types of insurance products providing critical payment streams may vary across markets and countries. Criticality within a particular region will be a function of applicable law and available social welfare programs, as described in further detail in section 3.3(b) below. While a detailed regional analysis of criticality is beyond the scope of this Guidance, products that individuals are likely to rely on for financial security or health generally include annuities, structured settlements, pension closeouts and workers' compensation schemes.

Disruption of insurance payments may have systemic effects. A reduction in individuals' income from the loss of an insurance payment will diminish their spending capacity, potentially resulting in a widespread negative impact on the consumer sector and cause higher mortgage and consumer credit defaults. Consumers may also experience a general loss of confidence in the insurance industry, which could spread financial troubles among insurers as fewer products are purchased and withdrawals of existing policies are increased. Industry risk pools, such as workers' compensation guaranty funds, may expose member insurers to additional vulnerabilities if they are required to make additional contributions to the pool to cover deficiencies following a member's failure.

b) Drivers of criticality

Criticality may increase with market concentration. Given the resulting obstacles to substitutability, the failure of an insurer with a high market share in a particular region, product or other market segment is more likely to have systemic effects. The concentration of losses within a certain geographical area or segment of the population may also strain health and social welfare programs that would otherwise be available to assist individuals in replacing lost income in the short-term.

Complex and unique products may increase criticality by reducing the availability of substitutes. Those relying on income from unique or complex policies are less likely to find similar products and may need more time to fully transition to alternatives. The potential delays and the possibility that the pre-resolution status cannot be fully replicated may exacerbate the effects of the lost income. On the other hand, standardisation and common products increase the ready availability of alternatives, easing the transition process.

Criticality may vary with the demographics of the policyholders. The age and health of the insured may impact a policyholder's ability to obtain an alternative policy, as well as the price at which such substitute can be purchased. Such factors may also affect an individual's ability to offset any lost income through alternative means until replacement income can be arranged, such as through the payment of claims in a resolution proceeding, the transfer of the portfolio, or the purchase of an alternative product. These factors may deepen systemic stress. For example, populations who are dependent on the income from such insurance products and less likely to be able to quickly and affordably replace them could be more likely to act quickly to seek a return of their contract value if their insurance provider is in distress.

Geography may be a key element of criticality. Criticality varies from region to region. For example, differences in applicable law may provide greater protections for policyholders in some areas as compared to others. Tax laws may also incentivise or discourage behaviours by both policyholders and prospective market entrants that could affect the size and nature of the market impact from an insurer's failure. The broad spectrum of government benefits and other social programs available to assist individuals in obtaining interim or substitute financial assistance and health benefits also may result in disparate macroeconomic effects. Similarly, the payment structure of the local healthcare system will influence the size of the resulting shock.

Payments supported by unfunded policyholder protection schemes may be more likely to spread industry contagion, albeit less likely to cause distress to policy beneficiaries. Certain types of policies that provide individuals with critical payments, such as workers' compensation policies, are supported by guaranty pools funded, after claims arise, by other insurers active in the market. Such guaranty funds may not be able to generate liquidity quickly enough in the short-term. Furthermore, the failure of a member insurer may cause other insurers distress by requiring them to increase their contributions to the fund. Unless the pool is insolvent, existing beneficiaries will not lose their payments entirely.

The ability to issue new products is generally less critical to the financial system than making payments on existing policies. Although pricing and other terms may be affected, other market participants will likely be able to write new business sufficient to fill the vacuum left by an insolvent insurer (subject to the substitutability analysis set forth in section 3.3(d) below). Furthermore, purchasers of new products are unlikely to already be dependent on the related income streams.

c) Aspects to consider for the impact assessment

- To whom were the policies marketed and for what purpose?
 - How large and how diverse is the class of policy beneficiaries?
 - What is the make-up of the policy beneficiaries?
 - Are policyholders diversified by age and health status, or are they concentrated such that a large number of similarly situated policyholders are exposed to a loss of income or to the inability to obtain alternative policies?
 - Are policy beneficiaries concentrated in one geographic region?
- What is the source, structure, and treatment of the premium payments?
 - What is the source of the premium payments (e.g., pension savings, other savings, the sale of a home, or other assets)?
 - How far into the future have premiums been pre-paid?
 - How are premiums treated in resolution and how long will the process take to be completed?
- What is the structure of the benefit payment stream?
 - How many individual benefit payments will the policy beneficiary receive (e.g., is there one lump sum payment or are payments made in regular instalments)?
 - Does the size of the payments vary significantly?

- Over what period of time will payments be made?
- What is the average size of the payments?
- What is the likely regulatory response?
 - Are payments stayed in a crisis?
 - Are payments subject to a policyholder protection scheme or supported by a guaranty fund?
- How quickly, easily, and effectively can a replacement policy be obtained through an alternative insurer? Are the terms of the replacement policy likely to be less favourable?
- Are there circumstances that increase the probability of contagion to other insurers, such as guaranty pools, overlapping market shares or a perception that other insurance companies are similarly situated?

d) Aspects to consider for the substitutability analysis

- What are the traits of the supply side market in the relevant insurance product or region?
 - Are there existing alternative providers that have the relevant expertise, capacity, and scale to assume the activity?
 - How large is the market share of the major insurance market participants, including insurers? How frequently do the participants change their relative ranking in the market?
- Are there impediments to substitutability?
 - Are the insurance products standardised or customised?
 - How stringent are the regulatory requirements to enter into the market for a new region or product? How long do applications take to process? How high are the associated costs?
 - Is there specialised infrastructure necessary to sell these products (e.g., specialised claims processing, technology platforms, etc.)?
 - Is an insurer likely to face logistical or financial challenges from quickly processing a significant number of new policies (e.g., protection of personally identifiable information, or increased staffing needs)?
 - How quickly can policyholders transfer their policies or benefits? Is it costly to customers to switch insurers? How able are policyholders to predict an insurer's distress in advance?
- Is the transfer or sale of the portfolio likely?
 - What level of assets would need to be transferred to a potential purchaser for the transaction to be attractive?
 - How quickly could the sale or transfer of a portfolio be completed?
 - Are transition services likely to be required for a long period of time?
- How long is it likely to be before a beneficiary can obtain a replacement payment source, whether through the resolution process, a policyholder protection scheme, or a new policy?

3.4 Investment in and lending to the real economy

a) Scope

Insurers invest in the real economy primarily as participants in capital markets. They are usually purchasers of government and corporate debt, and equities. The sectors which insurers invest in may be diversified, such as government, financials, energy, infrastructure, property, etc. Insurers' need for long-term assets to meet their long-term liabilities give them a structural advantage in providing long-term credit, addressing a funding gap not met by many other capital markets participants. Insurers may also hold short-term assets, such as demand deposits to back their short-term liabilities.

The failure of an insurer may cause it, under certain stressed scenarios, to dispose of large quantities of its assets very quickly. This may cause falls in market prices and make it more expensive for firms to raise funds. The fall in market prices may also cause a loss of confidence and lead to further disposal of assets by other firms. In addition, a fall in asset values may lead to lower consumption, harming economic growth. Failure of an insurer may also result in disruptions to projects which underpin the real economy, for example, the development of infrastructure. Further, insurers' liquidity constraints (due to a run on insurers) could impose liquidity issues on banks (through withdrawal of demand deposits). There is also possible risk of contagion to other markets owing to loss of confidence, such as a significant decrease of assets under management of a fund manager causing other investors to also withdraw their funds.

Lending by insurers can be critical if liquidity and funding strains for the borrowers occur before they can find alternative sources of credit. The real economy depends on a regular flow of credit. The failure of an insurer may expose certain borrowers to both near- and long-term liquidity constraints. The ability of borrowers to adapt to the failure of an insurer will be affected by the terms on which they borrow and the ability to find alternative sources. The failure of an insurer may cause disruption to certain markets if it had been a major provider of liquidity for these markets and cannot be replaced before liquidity strains emerge. Contagion might also occur through indirect effects; for example, the run on an insurer might spread quickly to other firms and markets.

b) Drivers of criticality

A large market share of invested assets increases criticality. The failure of an insurer is more likely to damage other firms if its invested assets represent a large share of invested assets in the capital markets. The larger the market share of the insurer, the greater chance that its failure would cause disruption to asset prices. A fire sale of assets by the troubled insurer and a consequential depreciation in asset prices might be the result, putting pressure on the balance sheets of firms with similar assets and triggering a self-enforcing vicious cycle.

Substitutability is influenced primarily by the number of firms with financing capacity in a particular sector. Sectors which require long-term financing, in which insurers may have a bigger presence, might have a more limited pool of funds providers.

Standardisation increases substitutability and reduces criticality. Standardised products are more easily substituted or transferred to other insurers than customised ones. Where

lending is based on collateral, greater standardisation of collateral terms and transparency of collateral values also increase substitutability.

For business lending, borrower size generally increases substitutability and reduces criticality. Larger insurers will typically have access to a wider range of potential lenders and many of the largest firms will have direct access to debt capital markets. Small and medium enterprises, by contrast, will typically only engage a single lender. Financial information about these small and medium enterprises may also be limited, further restricting the ability of other lenders to quickly substitute for the failed insurer.

For consumer lending, standardisation of underwriting (through such means as broadly available credit scores) increases substitutability and decreases criticality. The substitutability of consumer credit products increases with the level of standardisation. The availability of credit scores that are not proprietary to a specific lender further increases substitutability.

Lending that is shorter term is more likely to be critical than lending that is longer term. Short-term lending often supports the working capital needs of firms. Borrowers often rely on credit lines or overdrafts with their lender to close temporary liquidity gaps. Both products would be likely to have an impact on the economy if disrupted in the short-to-medium term. In contrast, the borrower is not immediately affected by the failure of an insurer that has provided it with term credit.

A highly interconnected lender increases criticality. An insurer's criticality is likely to be positively correlated with its interconnectedness with other financial institutions, such as the number of financial institutions which it lends to.

c) Aspects to consider for the impact assessment

- Which markets would be affected?
- Are these markets of systemic relevance?
- How interconnected are the affected markets?
- What is the proportion of the impact to affected markets?
- Which kind of counterparties does the insurer invest in?
 - Are there different investors?
 - If the group of investors is small, are the investment sizes considerable on average?
- Is the funding provided by the insurer used for investments in long-term, illiquid assets?
- What is the average size of the insurer's investments?
- What proportion of each relevant market do that insurer's investments account for?
- What is the average maturity term of the investments?
- How quickly can the funding provided by the insurer be obtained from another firm?
- Which kind of counterparties are loans extended to?
 - Are the loans extended to a large group of small borrowers (e.g. retail)?
 - Is the group of borrowers small, but are the loan sizes considerable on average (e.g., commercial loans)?
- What are the funds used for?
 - Are they for short-term liquidity provision?

- Are they more for investment-like purposes?
 - Mortgages (residential / commercial / construction financing)
 - Commercial financing
- Are they for short-term consumer financing (e.g., policyholders' loans)?
- What is the average size of a loan?
- What is the average maturity term?
 - Is the loan implicitly or explicitly assumed to get rolled over when matured?
- Does the insurer provide contingent credit to counterparties in the form of pre-payments on claims, high deductibles, etc.?

d) Aspects to consider for the substitutability analysis

- What are the other available funding sources for an investment?
- Are there alternative firms with sufficient expertise in the particular investment?
 - Do other firms have experience in risk management for the investment?
 - Are other firms able to invest a significant amount of liquidity?
- Are there alternative lenders with sufficient relevant expertise to quickly replace the failed insurer?
 - Do other providers have a sufficient track record in providing loans to a particular segment?
 - Do other providers have experience in risk management in regard to the lending segment in question?
 - Do other providers have established operating procedures to take over a significant share of new business?
 - Are other providers able to perform the activities on a sufficient scale?
- How are the loans collateralised?
 - What kind of collateral is pledged?
 - Is there a standardised, independent and transparent valuation process?
 - Are the collateral arrangements easily transferrable? Does the use of collateral for several loans impede transferability?
 - Does the value of the collateral correlate with counterparty risk?
- To what extent is the particular lending segment standardised?
 - How similar are the loan contracts?
 - How similar are credit risk procedures?
 - Are the loans or the portfolio of loans suitable for securitisation or transfer to a special purpose vehicle (SPV)?

3.5 Acting as a counterparty in derivatives, repo and securities lending markets

a) Scope

This section covers insurers' activities in financial markets where insurers act as counterparties. Straightforward (cash) investment in financial securities is dealt with in the previous section.

There are two main aspects to consider for the purpose of assessing critical functions: a ‘going-concern’ institution playing a critical ongoing role in the normal functioning of a market (the failure of which could see loss of provision of that role); and disorderly activities of a stressed or failed institution that could cause critical levels of disruption and contagion in markets.

Insurers act as counterparties to derivative transactions such as interest rate swaps, currency forwards and options. Insurers typically participate in derivative markets as end-users, as opposed to matched-book participants including some banks and particularly broker-dealers. Insurers primarily use derivatives to match risks in (projected) contractual liabilities, although non-traditional non-insurance (NTNI) activities may also involve derivative usage to take outright risks. Hence insurers are counterparties to a relatively small proportion of gross derivative contracts, but a larger and potentially significant proportion of net derivative exposures in certain markets.

Although banks and broker dealers are generally the immediate counterparty for insurers, the ultimate counterparties to the insurer may be non-financial corporations and households (in the real economy), which are typically also end users (e.g., a corporate looking to hedge exposure to currency movements or household taking out a long-term mortgage).

Insurance companies engage in securities lending activity to boost investment returns and use repo markets, in particular reverse repo, primarily as liquid and secured investments. Securities held by insurers as long term investments are made available for loan in order to earn fees. Given loaned securities may commonly be returned at short notice, there is liquidity risk in the reinvestment of cash typically received as collateral. As such cash collateral tends to be reinvested in liquid assets such as reverse repo and other money market instruments. If reinvestment constitutes liquidity or maturity transformation this may be vulnerable to runs, as seen in 2008. Some NTNI activities may also use repo markets for leverage.

One reason for considering these functions to be critical is the potential for contagion across the financial system in a stressed scenario. The failure of a large insurer may lead to derivative contracts being unwound or exposures offset. If large values of contracts are involved in the market, via the direct counterparties of the insurer, the financial system may be unable to process or absorb the necessary risk transfer, or there may be a delay. This could expose counterparties to undesired risks and lead to a loss of liquidity or confidence in derivative markets. The insurer’s activities in repo and securities lending would be more likely to act as an amplification mechanism, with stress in money markets causing securities to be returned creating a liquidity call on cash collateral, thereby increasing stress.

Another reason for considering these functions to be critical is the ongoing role played by insurers in providing demand for particular risks and offering liquidity. In particular, it may be the case that due to lack of substitutability the role insurers play in taking long duration risk in derivative markets is critical in offsetting other end-user sectors’ desire for long-term borrowing, such as corporates, households or some banks. This fits with “natural habitat” theories explaining different investors’ preference for parts of the yield curve. Insurers may also play a critical ongoing role in providing liquidity in securities lending and funding via repo markets.

b) Drivers of criticality

Relevant for both ongoing and stressed aspects

Systemic relevance of the particular market increases criticality. Disruption of certain markets may expose counterparties to significant liquidity and solvency strains, which in turn have the potential to prevent counterparties from providing other critical functions, or may reduce the ability or desire of an insurer to provide an ongoing function that others rely on. For example, repo and securities lending markets have been identified as key to the shadow banking system's ability to provide market-based finance, while some derivative markets are unlikely to be critical.

Institutions with a significant market share in a particular activity or instrument are more likely to be critical. The greater the market share of turnover, gross exposure or net exposure, the more likely an institution is to be critical to that market in either a static or a stressed scenario. The composition of other market participants may also be relevant for both aspects. Other institutions from similar sectors are less likely to be able to absorb the actions of a stressed firm given possible similar incentives, but more likely to be able to substitute for provision of an ongoing function.

Relevant for stressed aspect

Highly interconnected counterparties increase criticality. The more interconnected the insurer or the direct counterparties to insurers' activities in financial markets, the more likely an insurer is to be critical.

Excessive liquidity or maturity transformation or leverage increases criticality. This may be as part of an increased desire for risky investments, as part of a securities lending program or from NTNI activities. Where insurers use securities lending cash collateral reinvestments, repo of other assets or derivatives to take on liquidity risk, maturity transformation or increased leverage, the increased links with the financial system raise the probability that functions are critical as unwinding exposures becomes more difficult. Hence short term liquidity demands or a rapid reduction in risk appetite could result in market disruption or bring the financial position of the institution into question. Contagion might also occur through indirect effects; for example, losses large enough to bring the solvency of an institution into question may spread to concerns about other institutions.

c) Aspects to consider for the impact assessment

Relevant for both ongoing and stressed aspects

- Which markets are involved?
- Are these markets systemically relevant?
- Which other institutions or individuals make extensive use of similar markets and risk exposures?
- Who are the ultimate counterparties to the risks? What types of institutions or individuals are involved, and are they taking exposures for risk management or speculative purposes?

Relevant for stressed aspect

- What is the structure of the markets? Are contracts over-the-counter, centrally cleared or exchange-traded?
- Who are the insurer's direct counterparties, what type of institutions are they, and are they systemically relevant?
- How quickly could distress be spread by these interconnections?
- To what extent is the market used for liquidity or maturity transformation, or generating leverage?

d) Aspects to consider for the substitutability analysis

Relevant for ongoing aspect

- How concentrated is the market, and what is the market share of the insurer in question, in terms of turnover, gross and net exposure?
- What types of institutions and sectors are significant players in the market, and do they face similar incentives?
- Are other players likely able to absorb exposures from another participant exiting a market?
- To what extent do individual firms with dominant market shares in the market in question also have dominant market shares in other critical markets?
- Would the failure of a large player in this market have an impact on the ability of the market or related infrastructure to function?
- How small a market share would a player need to have in order to fail without significantly disrupting the activity?
- What is the ratio of securities available for loan to securities on loan?

3.6 Pooling of risk, particularly reinsurance, as an economic function

a) Scope

Reinsurance is insurance for insurers. It refers to entering into a contract with a customer – the primary insurer – to reimburse some part of the claims that may be made against the primary insurer by its policyholders. This section does not cover intra-group reinsurance and consideration should be given to whether intra-group reinsurance constitutes a critical shared service. **Reinsurance increases the interconnectedness of the financial system and so may increase the potential for contagion.**

Reinsurance enables primary insurers to reduce claim fluctuations and smooth profits. Reinsuring part of an insurance portfolio reduces the level of risk faced by the primary insurer and releases capital. This capital enables the primary insurer to underwrite a greater number of risks, bringing benefits in terms of diversification and economies of scale. Reinsurers also provide their customers with technical assistance such as underwriting, product design, pricing and systems design; reinsurers may have a greater volume of information relating to risks. Insurers may be reluctant to enter into new lines of business unless they are able to share the associated risks with a reinsurer. Insurers also use reinsurance to provide products that protect consumers from more than one type of risk: some types of risks may be retained by the primary insurer and some reinsured.

If a significant amount of reinsurance capacity were lost and not replaced, then the nature of the insurance market may change and perhaps either move towards a co-insurance model or

for direct insurers to grow or merge in order to increase their underwriting capacity. Alternatively, there may be no capacity to take on those risks at the previous pricing levels (i.e., insureds would need to accept lower coverage and/or pay a higher premium or both). The insurance market may become more concentrated, reducing competition and choice offered to customers. Larger insurers may be more likely to pose a systemic risk.

However, there is no strong historic evidence that the interconnectedness arising from reinsurance business contributes materially to a reinsurer being systemic in distress or failure under normal circumstances. There is evidence that significant substitutability exists for reinsurance coverage amongst existing market participants and that following large losses new capital flows into the market as underwriting rates adjust. Authorities may place reliance on such evidence, but should bear in mind that uncertainty exists regarding interconnectedness and what may contribute to systemic risk in circumstances of significant distress.

b) Drivers of criticality

A highly interconnected reinsurer increases criticality. A highly interconnected reinsurer has a greater potential to spread contagion as its failure could lead to the failures of many primary insurers, either through the default on monies owed under contracts of reinsurance, or through the failure of the primary insurer's business model if it is unable to continue sharing risks. It should be noted that, unlike banks, the interconnectedness is contingent in nature: the primary insurer's claim against the reinsurer is contingent on the insured event happening.

Difficulty in substituting the insurer as a provider of reinsurance for a particular line of business increases criticality. Primary insurers' business plans may be dependent on obtaining reinsurance, but the exit of any one particular reinsurer from the market is unlikely to affect primary insurers if reinsurance cover can be replaced in the short or medium term. In normal market conditions, reinsurance cover might be readily substitutable: as long as the aggregate capital provided to the insurance/reinsurance market does not change the industry should be capable of bearing the aggregate risks, either by the primary insurer or a new reinsurer. Even in a stressed environment, historic experience suggests that the market adjusts by increasing premiums, reducing demand or reinsurance and increasing supply. Substitutability should be considered both in terms of capital and expertise.

Systemic relevance of the line of business reinsured increases criticality. Reinsurance is a product provided to primary insurers: its impact on the real economy depends on the nature of the primary insurer's activities. Acting as a channel for contagion may be of little concern if the primary insurers affected are not themselves providing critical economic functions. Similarly, any impact on competition or consumer choice in the insurance market is unlikely to be systemic unless the products in question are critical.

Participation in insurance risk pools increases criticality. Criticality can be increased where pooled risks provide a transmission mechanism for losses from one insurer to another insurer and, thus, increasing the impact on the market of any one failure, particularly where a pool is funded only after losses are incurred. Insurers may join together to underwrite risks which are too large individually to accept. There are various methods of doing this such as reinsurance, co-insurance, co-reinsurance, broker-led co-insurance subscriptions, and

insurance pools. Types of co-insurance where each insurer is only responsible for its own share of the risks will not increase contagion (unless there is a reputational driver to make good other co-insurers' share of losses). Insurance pool arrangements can be constructed in a variety of ways, but can involve obligations on participating insurers to cover losses for which a failed pool member is responsible. The pool may also agree to reinsure mutually all or part of their liabilities. This may increase contagion to other insurers in the event of one failure.

Government-backed pools are not critical functions merely because their failure puts taxpayers at risk. Certain pools are established for risks which would not be accepted without a degree of government support. These might be risks related to terrorism or nuclear accident. The support may be provided by government-mandated levy arrangements on all insurers or part of the insurance industry or by direct government guarantees (which may be limited in amount). Arrangements which depend on levies can increase contagion to other insurers. However, the fact that the failure of a participant in such a pool may result in a call being made on the government (at a cost to taxpayers) does not mean that this function is necessarily a critical function. Where a government has accepted such risks prior to any insurer failure, then a resolution plan which involved a government providing the anticipated support may still be an acceptable plan, notwithstanding the aims of the *Key Attributes* for effective resolution regimes.

c) Aspects to consider for the impact assessment

- Which insurance markets would be affected?
- Do the primary insurers participating in those markets provide critical economic functions?
- What proportion of business is reinsured in the affected markets?
- How many primary insurers does the firm provide reinsurance to?
- What protections are in place against a default of a reinsurer, e.g. to the extent to which collateral is posted?
- To what extent does retrocession occur?
 - What percentage of reinsurance premiums is retroceded?
 - What proportion of reinsurer's total assets is made up of recoverables from retrocession?

d) Aspects to consider for the substitutability analysis

- How concentrated is the market? Metrics to measure this include:
 - the percentage of reinsurance gross written premiums accounted for by the largest six reinsurers, and
 - the Herfindahl-Hirschman Index¹²
- How extensively are alternative risk transfer mechanisms (e.g., securitisation or catastrophe bonds) used in the market?
- How well capitalised is the market?
- Does historical experience provide any insight into the market's ability to raise capital in stressed circumstances?

¹² The Herfindahl-Hirschman Index is calculated as the sum of squares of market shares.

- Is specialist knowledge required to operate in the reinsurance market?
- Are there any other barriers to entry?

4. Framework for critical shared services

The second part of this two-part Guidance concerns critical shared services, which are activities performed within the firm or outsourced to third parties where failure would lead to the inability to perform critical functions and, therefore, to the disruption of functions vital for the functioning of the real economy or for financial stability.

4.1 Definition

For the purpose of this Guidance, a critical shared service has the following elements:

- (i) an activity, function or service is performed by either an internal unit, a separate legal entity within the group, or an external provider;
- (ii) that activity, function or service is performed for one or more business units or legal entities of the group; and
- (iii) the sudden and disorderly failure or malfunction would lead to the collapse of or present a serious impediment to the performance of critical functions.

If one of the above elements is absent, this suggests that the shared service is not critical. For example, if an internal activity, function, or service, such as facilities management, can easily be substituted from other external sources, that shared service is not critical, even if it is necessary for maintaining the critical functions of the company.

Similarly, the fact that an activity, function, or service is shared does not necessarily mean that it is a critical shared service, as it may support tasks not directly related to maintaining critical functions: for example, a centralised marketing department.

4.2 Determination of critical shared services

Critical shared services are related to the critical functions a firm performs; they provide the internal and essential infrastructure the firm needs to continue operating. Their identification should therefore follow from the identification of the critical functions. Given the variety of shared services and the limited time and resources in resolution, it might be helpful to rank the shared services in order of priority. While some shared services have to be continuously provided, there might be others that can be interrupted for a short period without leading to a collapse of the critical function. In prioritising shared services, the following questions are relevant:

- Impact: How quickly will the failure of a particular shared service lead to a collapse of one or more critical functions?
 - Substitutability: How quickly can the failure of a particular shared service be replaced by an alternative internal source or an external provider?
- Firm-specific: How severe are the consequences of the failure of a particular service on one or more critical functions?

For the purposes of this analysis, there should be a clear understanding of the following aspects of the shared services at the *legal entity level*:

- (i) the provider and the recipient of the services, taking into account the differences in resolution timeframes and other factors posed by their respective authorities or resolution regimes;
- (ii) the nature of the services being provided;
- (iii) the legal entity's right to use and access shared data, services, systems, or other intellectual property generated or processed by the service;
- (iv) the financial terms on which those services are offered;
- (v) the existence of service level agreements and intercompany reinsurance agreements, and the validity of such agreements in the event of failure;
- (vi) the impact of default on the ability of the firm to maintain these services; and,
- (vii) the extent to which services can be substituted quickly and easily.

4.3 Key considerations for critical shared services

Critical shared services should be organised or procured in a way that ensures their continued access and availability to all relevant parts of the firm under the chosen resolution strategies. Examples of arrangements that could achieve that objective include, but are not limited to, performing shared services out of independent and bankruptcy-remote legal entities and preparing in advance for an alternative provider to take over in a crisis. If the service is provided by an external entity, arrangements should be put in place in order to ensure uninterrupted data access and continuation of the services.

Given that the vast majority of firms' business processes are likely to depend on information technology (IT) systems, it is important to understand the complexities of dependencies arising from shared IT systems, which may differ from the structure of business processes.

If cross-border intra-group service agreements cannot be enforced in resolution, this may prevent the continuation of the service and access to critical aspects of data. Firm-specific crisis preparation should ensure continuity of these services in resolution.

Determination and management of critical shared services should be linked to the business continuity planning processes of the firms.

Special consideration should be given to services that require a highly specific firm-internal knowledge. In this respect, the retention of key personnel in short and medium term is likely to be important for operational reasons.

5. Shared services that could be critical

Critical shared services at an insurance company may be, in many respects, similar to those found at other large financial institutions. However, certain shared services, such as intra-group reinsurance management, actuarial risk assessment, claims management and oversight

of participation in industry and governmental pools are unique to the insurance industry and are considered below.

5.1 Finance-related shared services

Finance-related shared services involve the management of financial resources of the firm, including reinsurance. An indicative list is below.

Table: Finance-related shared services	
Treasury Function	<ul style="list-style-type: none"> • Steering function for the treasury activity (operations steering, defining risk monitoring) • Collateral management • Reporting function, including regulatory liquidity • Medium and long term funding programs • Refinancing and short term issues • Investor relations
Asset Management	<ul style="list-style-type: none"> • Confirmation, settlement and payment • Position and counterparty management (data reporting, counterparty relationships, risk and reconciliation)
Actuarial and Risk Management	<ul style="list-style-type: none"> • Risk modeling • Analytics • Risk governance and limit management, including development of underwriting standards and reinsurance risk policies • Reporting and monitoring of exposure • Risk management teams, including embedded risk managers • Actuarial services • Assessment of necessary level of claims reserves
Accounting	<ul style="list-style-type: none"> • Statutory accounting • Investment and derivatives accounting, including market valuations • Reinsurance accounting, including accrual, estimation and closing processes • Regulatory and management financial reporting • External audit support

Tax	<ul style="list-style-type: none"> • Corporate tax budgeting and planning • Intercompany tax allocations and payments
Intra-group reinsurance management	<ul style="list-style-type: none"> • Oversight over approvals, limits and collateral • Administration of local and regional treaties and facultative programs • Policy liability and premium layoff management • Handle reinsurance disputes, including involvement in resolution of ceded reinsurance claims as needed • Reinsurance payable and receivable administration • Captive and fronting management • Insurance pool oversight • Risk management and centralisation to ensure efficient purchase of reinsurance from a third party • Increases in intra-group connections and credit exposures, which may influence resolution plans

5.2 Operational shared services

Operational shared services do not involve financial resources, but provide the necessary infrastructure to enable the firm or parts of it to function. As such, they are not all specific to an insurance company, but many are found in other firms as well. The similarity enables existing frameworks; e.g., those covering enterprise risk management or business continuity planning to be used in order to assess and ensure the availability of these functions in a crisis. However, assessment criteria might need to be extended; e.g., to cover legal, intellectual property ownership or cross-border issues, or developed with respect to insurance specific services, e.g., claims processing. Certain of these functions may be shared across firms in the industry, whether through outsourcing or through the creation of risk pools. An indicative list is provided below.

Table: Operational shared services	
Human resources	<ul style="list-style-type: none"> • Payroll processing • Administration of benefit plans • Talent acquisition • Relocation administration • Staff contracting, including where centralised into one legal entity • Employee communications
Information technology	<ul style="list-style-type: none"> • Data storage, management and processing • Intellectual property or data access or ownership • Application and systems maintenance • Network support • Disaster recovery solutions • Management of software licenses and source code • Contract with external providers for service agreements and arrangements • User support • Report generation • Other IT infrastructure, including hardware, servers, telecoms, data centres and related services

Real estate management	<ul style="list-style-type: none"> • Facilities operations management • Physical security, including access control • Fire safety • Real estate portfolio management and leasing decisions
Legal and compliance	<ul style="list-style-type: none"> • Litigation • Corporate secretary services • Compliance support with respect to applicable regulations • Regulatory relationship management • Internal audit • Fraud prevention and investigations • Contracting support • Business and transactional legal services

Examples of possible critical functions

The following tables set out lists of functions that could be considered critical. These lists are neither prescriptive nor exhaustive. The analysis necessary to decide which functions are critical requires considerable judgement on the part of the relevant authorities and depends considerably on the risk the function poses to the financial stability and the real economy of the particular jurisdiction. Most of the functions listed are probably not critical due to the specific features of the particular firm, market and jurisdiction in which the firm operates.

Since the starting point in the proposed three-step analysis is to consider functions which conceptually could have an adverse effect on financial stability and the real economy (step 1), these lists appear to be long and cover a very large number of insurance products and business lines. However, the vast majority will prove either not to be critical functions because they are either easily substitutable (step 2) or do not affect a sufficiently large proportion of the financial market and the real economy (step 3).

It is the task of the relevant authorities to assess the criticality of functions that resolution strategies should maintain to minimise impact on financial stability and the real economy. It is possible that the choice of resolution strategy will reduce the importance of the function identified, make substitution easier, or reduce the number of persons affected below a material level such that the failure of an insurer is no longer systemically important even if not every third party or person depending upon that function is completely protected from failure.

Relevant authorities will need to assess the practicality and operational certainty of a resolution strategy in light of the need to minimise the disruption caused to every potential user of functions that may be critical. It is our expectation that in practice authorities will concentrate on developing resolution plans that address the few functions that are critical and that these lists of identified critical functions will later prove useful in ranking possible critical functions in order of importance, substitutability and materiality.

I. Insurance coverage as a precondition for economic activity

Functions/products

- Professional indemnity insurance
- Aviation insurance
- Marine insurance
- Directors & officers liability insurance
- Product liability insurance

- Private credit insurance
- Workers compensation insurance
- Trade credit insurance
- Public liability insurance
- Motor car liability insurance

II. Insurance coverage as a precondition for individuals to go about their daily lives

Functions/products

- Motor car liability insurance
- Mortgage indemnity
- Building, flood, or earthquake risk
- Medical coverage
- Travel insurance

III. Insurance payments that are vital to individuals' financial security

Functions/Products

- Annuities
 - Variable
 - Fixed
- Structured settlements
- Pension closeouts
- Workers' compensation
- Long-term care insurance
- Permanent life insurance with a savings component
- Term life coverage
- Mandatory health coverage
- Liability coverage
- Specialised casualty products
- Factors to consider when assessing whether a particular payment or payments under a particular class of insurance product are critical:
 - Whether a policyholder has the right to surrender a policy to obtain substantially all of the value of any savings element or the right to accelerate payments of

income due under a policy.

- Whether such a surrender or accelerated payment is necessary for the financial security of an individual (as opposed to payment being made in an orderly way over a more protracted period of time).
- The possible behaviour of a policyholder or other policyholders acting *en masse* in a crisis (as opposed to their contractual rights).
- The extent to which other sources of financial security can mitigate the loss of payments to a policyholder (e.g., the prospects of another insurer providing a similar product or contracts being transferred to another insurer, or other sources of income for that policyholder).

IV. Investment in and lending to the real economy

Functions/products

- Government Debt
- Corporate Debt
- Listed Equities
- Unlisted Equities

Loans

- By counterparty: retail, commercial
- By maturity: short-term, long-term, residual maturity
- By collateralisation: mortgage, secured, unsecured

Insurance products that have a credit component:

- Captive/fronting business
- Political risk
- Trade credit

V. Acting as a counterparty in derivatives, repo and securities lending markets

Financial market products

- Derivatives including:
 - Interest rate swaps and forwards
 - Currency or FX swaps and forwards
 - Bond futures
 - Index (e.g. equity) futures, options and total return

swaps

- Credit default swaps
- Repo (including reverse repo)
- Securities lending (as lender)

VI. Pooling of risk, particularly reinsurance, as an economic function

Reinsurance Functions/products

- Facultative or treaty reinsurance
- Co-insurance/original terms or risk-premium basis
- Proportional: Quota share basis or surplus basis
- Non-proportional: Excess of loss, e.g., catastrophe or stop-loss
- Financial reinsurance