# INTERNATIONAL ASSOCIATION OF INSURANCE SUPERVISORS


# ISSUES PAPER ON GROUP-WIDE SOLVENCY ASSESSMENT AND SUPERVISION

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This document was prepared jointly by the Solvency and Actuarial Issues Subcommittee and the Insurance Groups and Cross-Sectoral Issues Subcommittee in consultation with IAIS members and observers.

This publication is available on the IAIS website (www.iaisweb.org).

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# 1 Introduction

1. Since its inception in 1994, the IAIS has developed a number of principles, standards and guidance papers to help promote the development, domestically and globally, of well-regulated insurance markets. Central to this objective is the development of a common framework for insurance supervision that establishes a common structure within which standards and guidance on insurance solvency assessment may be developed.

2. The Insurance Core Principles[1] consist of essential principles that should be in place for a supervisory system to be effective and serve as a basic benchmark for insurance supervisors in all jurisdictions. Insurance Core Principle 17 (ICP 17) states that "the supervisory authority supervises its insurers on a solo and group-wide basis". The explanatory note to ICP 17 articulates that the "supervision of insurers, who are part of a wider insurance group or conglomerate, whether domestic or international, should not be limited to the solo supervision of that insurer". However, the IAIS *Report on the ICP Self-Assessment Exercise 2004/05*[2] (February 2006) identified that group-wide supervision is one of the least observed principles, with some supervisory regimes "exclusively rooted in solo basis supervision". The IAIS recognises the recent developments in jurisdictions and regions worldwide to improve the harmonisation of supervision (most notably the introduction of risk-based solvency assessment regimes).

3. To date, the work of the IAIS Solvency and Actuarial Issues Subcommittee (SSC) has focused primarily on solvency requirements on a solo basis recognising that a solid foundation is first needed before beginning to develop group solvency requirements.

4. A number of key standards and guidance papers have now been established such as the IAIS *Standard on Asset-liability management* (October 2006); *Standard and guidance paper on the structure of regulatory capital requirements* (October 2008); *Standard and guidance paper on enterprise risk management for capital adequacy and solvency purposes* (October 2008); *Standard and guidance paper on the use of internal models for risk and capital management purposes by insurers* (October 2008). A further two standards and guidance papers are targeted for completion by October 2009 focussing on capital resources and valuation of assets and liabilities, including technical provisions.

5. The requirements in these standards form part of a coherent set of documents which establish a common solvency structure and standards for insurer solvency assessment within the context of the IAIS Framework for Insurance Supervision (refer to Figure 1).

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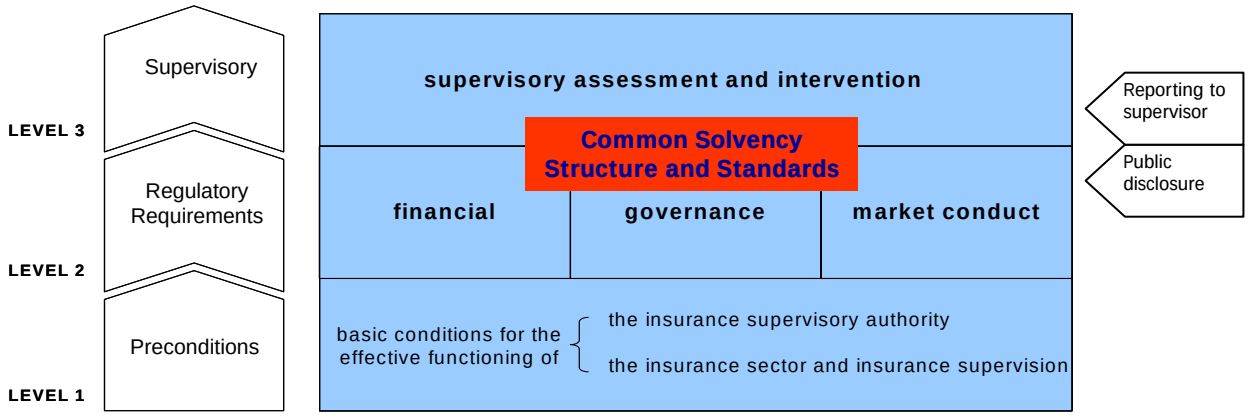
1 Refer to IAIS *Insurance Core Principles and Methodology* (October 2003).

2 By the IAIS Task Force on Assessment and Implementation of Core Principles.

***Figure 1: The common solvency structure and standards within the Framework for insurance supervision***




6. Since its inception, the IAIS has also advanced work on aspects of group-wide supervision; in particular it has developed a number of papers to facilitate enhanced cooperation and exchange of information between supervisors. In March 2007 the IAIS adopted the IAIS *Multilateral Memorandum of Understanding on Cooperation and Information Exchange* (IAIS MMoU) which establishes a formal basis for cross-border cooperation and information exchange amongst supervisors.

7. The Insurance Groups and Cross-Sectoral Issues Subcommittee (IGSC) has recently developed *Principles on group-wide supervision* (October 2008) (the Principles paper). The Principles paper expands on ICP 17 and aims to establish an internationally acceptable framework to help ensure appropriate consistency, efficiency and effectiveness of supervision on a group-wide basis, while preserving the level of protection of all policyholders in the group. The Principles paper focuses on groups whose main activity is insurance and proposes five principles to improve the way insurance groups are supervised covering capital adequacy, governance, risk management and internal controls, as well as the supervisory approach.

8. To further support the Principles paper, the IAIS *Guidance Paper on the role and responsibilities of a group-wide supervisor* (October 2008) describes a number of mechanisms to advance the coordination and cooperation amongst supervisors on a group-wide basis. Among these mechanisms, the paper highlights the benefits of fostering memoranda of understanding (MoU) and of establishing supervisory colleges.

9. The guidance paper, in particular, addresses one possible element of an international framework for group-wide supervision - the designation of a group-wide supervisor to promote efficient and coordinated group-wide supervision. In this respect the guidance paper is seen as evolutionary rather than revolutionary: it presents an approach to group-wide supervision as a supplement to solo supervision, addressing the respective roles of the solo and group-wide supervisor.

10. In line with the recommendations of the Financial Stability Forum (FSF) and the G20 action plan in 2008 in the context of the financial crisis[3], the IAIS is undertaking further work on the issues of group-wide supervision and macro prudential implications more generally - in particular, the use of supervisory colleges. A supervisory college comprises supervisors involved in the supervision of an insurance group's members and may take various forms, depending on the structure and organisation of the group. The primary purpose of a supervisory college is to facilitate the coordination and cooperation processes among supervisors through regular college meetings, greater interaction and exchange of relevant information.

11. The IAIS supports the view that there is an important role for supervisory colleges in enhancing exchange of information and cooperation in addressing cross-border issues, particularly in situations where the group is under financial stress and the effectiveness of supervisory collaboration is likely to be tested.

12. Both the SSC and IGSC have committed in their respective work plans to cooperate closely in advancing work within the IAIS on group issues. This joint issues paper is a first step in that process, exploring the issues of insurance group solvency assessment and supervision.

## 2 Purpose

13. The purpose of this issues paper is to explore the issues of group-wide solvency assessment and supervision for insurance groups, which are beyond the scope of the aforementioned IAIS papers. A particular objective is to consider the practical issues and challenges associated with the establishment of a risk-sensitive approach to group-wide solvency assessment which is broadly consistent with the present IAIS standards and guidance material on solo solvency assessment.

14. The IAIS believes that insurance groups should be subject to broadly similar expectations in terms of risk management and capital assessment as are established in the IAIS solvency assessment requirements for individual insurers. A coordinated approach is needed in assessing solvency across an insurance group.

15. This does not remove the need for appropriate supervision and solvency assessment of the individual insurers within the group. Group-wide supervision supplements, and does not remove the need for, solo supervision which always has a key role in protecting the policyholders of individual entities.

16. In order to set up an efficient group-wide supervision framework in accordance with ICP 17 and the Principles paper, it is necessary to take into account the differences that may exist in the prudential and supervisory regimes of the different jurisdictions in which the group operates. Such differences may result from a diversity of factors including the financial regulations, legal regime and other supervisory practices in each jurisdiction.

17. This paper, therefore, provides a preliminary analysis of a range of possible approaches to group-wide solvency assessment and their interaction with solo solvency assessment. It further considers the relative merits of these various approaches to group-wide supervision and the challenges associated with their implementation in practice. It is

[3] Refer to the report of the FSF on Enhancing Market and Institutional Resilience (April 2008), recommendations V.5 and V.6

not the intention of this paper to advance a single model of group-wide supervision, but rather to inform the further considerations within the IAIS on the extent to which, and the possible directions in which, to advance this important policy agenda.

*Scope of the Issues Paper*

18. The scope of the recent IAIS work on group issues has focused on groups whose main activity is insurance. Similarly the considerations in this paper are primarily focussed on insurance groups, while not totally disregarding the broader issues of financial conglomerates which include insurers.[4]

19. This paper anticipates that the IAIS will, as a first stage, explore the issues in relation to the supervision and solvency assessment of insurance groups – having regard to the specific risks associated with insurance business. The IAIS will then be better positioned to extend its considerations to the broader issues of the non-insurance activities of insurance groups, the supervision of insurers within the context of a financial conglomerate and the appropriate harmonisation of insurance group supervision with that of other financial sectors, in particular the banking sector. Also the IAIS will be better positioned to contribute to the broader discussions on these issues in fora such as the Joint Forum and the Financial Stability Forum.

20. In considering the possible approaches to group-wide supervision it is also important to distinguish clearly between the main components of supervision as established in the IAIS Framework for insurance supervision (refer to Figure 1). In particular, although the financial requirements of a solvency regime comprise a significant element of supervision, it is also important to consider the approach to supervision of the governance, risk management and internal control processes and the market conduct aspects of the group. This paper therefore also considers these aspects.

*Objectives of Group-wide solvency assessment and supervision*

21. The IAIS recognises the value of group operations to global insurance markets and the importance of effective group-wide supervision in promoting their soundness. Facilitating appropriate regulatory efficiencies and optimal use of capital for the benefit of policyholders is important in this context, but should not come at the expense of the overall supervisory objective to secure the prudential soundness of the industry and protect the interests of the policyholders.

22. In order to ensure the ultimate objective of securing policyholder protection, in considering approaches to group-wide solvency assessment and supervision the following broad considerations should be given due regard:

- ensuring the soundness of each insurer
- contributing to the maintenance of overall financial stability, particularly as the failure of a large group could have systemic implications
- preserving the levels of protection of policyholders within an entity
- facilitating equity in levels of policyholder protection across entities within a group

[4] The IAIS is also an active participant in the work of the Joint Forum, which addresses the broader cross-sectoral issues of supervision in the context of financial conglomerates.

- recognising and assessing the effects of intra-group relationships
- providing appropriately consistent and effective group-wide supervision
- taking into account group reality
- facilitating appropriate alignment from a supervisory perspective between the management and operational structure of the group and the approach to supervision of the group.

23. This list of possible considerations illustrates the potential conflicts and competing interests which need to be balanced and the flexibility which may be needed in practice in the design of an approach to group-wide supervision. There can be tension between the interests at the entity and/or jurisdiction level and those at the whole group and/or global level which needs to be acknowledged and considered in any approach to group-wide supervision.

## 3 International insurance group developments

24. From the 1990s, the growth of groups involved in the insurance sector has been substantial and has mainly occurred through mergers and acquisitions of existing insurers. As a result, most internationally active insurers are presently organised in the form of groups of entities, each of which is incorporated according to the legal framework of its respective local jurisdiction and has its own legal identity and personality. Further, merger and acquisition activity within jurisdictions has led to there being an increased number of insurers which comprise groups of entities within a jurisdiction. Such groups also increasingly include entities that operate in other parts of the financial services sector (such as banking or wealth management) and may also include other non-financial entities.

25. In many cases, the development of insurance groups has led to the setting up of a legal framework applying to such groups, either at national or regional level (e.g. EU Directives on insurance groups and financial conglomerates), the formation of bilateral or multilateral cooperation agreements between supervisors, and the development by international organisations (IAIS, Basel Committee on Banking Supervision, Joint Forum) of principles, standards and guidance relating to group-wide supervision.

26. Another development that has emerged over the last 10-15 years has been the increased trend towards large internationally active insurance groups conducting Enterprise Risk Management (ERM)[5] and capital management on a group-wide basis, complementing the risk and capital management programmes applied at individual entity level.

27. Similarly a trend towards a group-wide approach has emerged in the development of internal models as tools for group-wide risk and capital management. Structures and approaches to internal models may vary in the way models at group and entity levels are combined or integrated (e.g. some groups use a bottom-up approach, whereas other groups use a top-down approach).

[5] Enterprise risk management is the process of identifying, assessing, measuring, monitoring, controlling and mitigating risks in an insurance enterprise as a whole. Refer to IAIS *Standard and Guidance Paper on enterprise risk management for capital adequacy and solvency purposes* (Oct 2008).

*Supervisory response to industry developments*

28. Supervisors are at various stages in developing approaches to enable them to more effectively monitor the financial position of insurance groups.

29. The type of supervision that is currently conducted in most jurisdictions is based on the solo assessment of the risk and solvency of the entities within the group. This provides a deep and sound methodology to ensure that entities remain solvent and policyholders' rights (which are secured at entity level) are adequately protected. Some jurisdictions have developed forms of group-wide supervision to complement the solo level supervision and to better assess the risks that may arise for the entity as a consequence of being a part of the group. Other jurisdictions have adopted an approach which limits or seeks to control the potential impacts of being a part of a group[6].

30. The development of groups on a cross-border basis has also led to increased cooperation among supervisors in different jurisdictions. Cooperation is strongly linked to the convergence of supervisory practices and mechanisms for information exchange.

*The effects of being part of a group*

31. Group membership may have both positive and negative effects which interact with each other at financial, technical and organisational levels. Such effects may impact the solvency of the whole group and/or one or a number of entities within the group. In this respect, the group's organisation, policy and operations can impact the risks borne by its members.

32. Two types of risks that are particularly relevant to consider in the context of groups, and which may be a source of strength or weakness to the entities within a group depending on the particular circumstances, are reputational risk and contagion risk. Reputational risk is the risk that sentiment regarding the reputation of an individual insurer is affected by the sentiment towards the wider group or other entities within the group. For insurance entities, reputational risk is often linked with policyholder expectations regarding the payment of claims and/or the delivery of investment products and services and whether the insurer is meeting its prudential and consumer protection obligations relating to those services. As an example, the use of a common brand can have a significant impact on the extent of reputational risk within a group and its willingness to provide financial support to its subsidiaries: the group may be more likely to provide financial support when there is a common brand in order to protect the brand from reputational risk.

33. Contagion risk is the risk that an individual entity will be adversely affected by the actions of another entity within the group due to the relationships, direct or indirect, that exist between them. Where financial difficulties in one or more of the entities may adversely impact other financial institutions, beyond the scope of the group contagion risk, this may give rise to systemic risks, which exists where an adverse event affects the financial system as a whole, jeopardising the stability of the financial market.

34. The relative effects of being a part of a group may be perceived differently by different major stakeholders – for instance shareholders, policyholders and supervisors could be expected to form different views on the relative merits of being a part of a group. These

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[6] In the EU, the Insurance Groups Directive facilitates the assessment of capital adequacy on a group-wide basis with some monitoring of intra-group transactions. The US has focussed directly on intra-group transactions with close monitoring and prior approval requirements for certain types of transactions as well as coordination between jurisdictions in the conduct of financial examinations..

perspectives may also be expected to vary as the circumstances of the group, or the entities within the group, vary.

35. Some further examples of the effects of being part of a group are:

Positive aspects:

- belonging to a group may provide the group entities with better sources of financing and increase their financial security, in particular by receiving financial support (to the extent this can be relied upon) from related entities within the group.
- belonging to a group provides opportunities for enhanced pooling of risks and for transferring risks between entities within the group, e.g. through reinsurance.
- a group may decide to absorb losses made by an entity within the group beyond the group's legal commitments, to preserve the integrity of brand or to avoid the reputational impacts of winding-up a part of the group.
- operating within a group structure may give access to greater technical resources, including enhanced skills and expertise, in particular for the smaller entities of the group. Such benefits can include asset management, where more sophisticated tools can become available. Also, access to wider knowledge and skills can have significant benefits for pricing and the management of major or complex risks.
- centralisation of internal management and internal control functions may enhance risk management capability and facilitate coordinated enterprise risk management and capital management. Having the structure of the group consistent with the structure of the business operations may enhance the efficiency of operation.
- operating through a group structure may allow the insurer to provide enhanced service to customers by offering them more comprehensive risk management products and services so as to avoid coverage gaps.

Negative aspects:

- an insurer may be exposed to financial weakness in other group entities through financial, reputational or operational risk. Conversely, some risks crystallising at entity level may have flow on effects to other entities and/or the wider group (contagion risks).
- group policy may require its entities to take actions to meet the needs of the group, rather than their own needs (e.g. to provide financing or insurance to other entities within the group) subject to any jurisdictional legal limitations.. In such cases, group policy may result in the insurer bearing risks beyond those it would bear on a stand-alone basis.
- complex group structures may make the management of the group more complex and communication and coordination of activities may prove more challenging. In this regard, to be fully effective group management needs a full understanding of all risks occurring in each entity as well as across the group as a whole. This may be difficult in the case of a very complex structure and could lead to inappropriate decisions and ineffective implementation in relation to individual entities. Potential duplication and hence inefficiency and additional cost may also arise.

- complex group structures, including holding company structures, can lead to opaqueness. This can make it difficult for supervisors to have a clear understanding of the structure, the linkages between the different parts of the group and their consequences in terms of solvency for the different entities involved. Hence, the effects of intra-group transactions and multiple gearing/internal creation of capital within a complex group structure can make the assessment of risk and solvency more difficult.
- An entity may be of relative low significance within the group as a whole, yet a significant entity in its own right within its local market, with the potential for conflicts of interest. Further the group management may lack sensitivity to these local issues, and to the potential consequences of its decisions about such an entity on its local market.

36. Supervisors also need to consider that there are various reasons why an insurer may choose to operate as a group of individual entities rather than as one single, large entity, including:

- to wall off exposure to certain volatile risks from the rest of the group
- to separate classes of insurance business as required by regulation
- to ring fence profits which an insurer shares with its policyholders, for example in the case of mutual companies
- as a result of mergers and acquisitions
- to access tax advantages
- to access other regulatory advantages.

## 4 Enhancing solo supervision through the consideration of group effects

37. In assessing the solvency of an insurer which is a member of a group, there are risks, challenges and benefits which the solo supervisor needs to consider in enhancing pure solo supervision to take account of group effects.

38. Some of the more important issues to be considered include:

- intra-group transactions and gearing of capital
- risks from being a member of a group, including reputational and contagion risk
- supervisory capacity, collaboration and cooperation
- conflicts of interest and levels of policyholder protection

*Intra-group transactions and gearing of capital*

39. A major objective of a solvency regime is the assessment of the capital adequacy of the insurer - the determination of the level of capital requirements and capital resources. Intra-group transactions (including off-balance sheet items – refer to paragraph 60), such as internal creation of capital or gearing of capital within a group, may mean that the same capital is relied upon by more than one member of the group and may lead to the overstatement of the capital adequacy of one or more insurers within the group.

40. There are risks associated with intra-group transactions when they are recognised as capital on the balance sheet of one entity without further regulatory adjustment. Intra-group exposures can arise through various means, including loans between entities within a group and risk transfer through reinsurance arrangements between entities within a group. Less explicit arrangements including service agreements and outsourcing arrangements between entities within a group may also create challenges in assessing the risks and capital position of a particular insurer.

41. In assessing the capital adequacy of an insurer which is a member of a group, such intra-group exposures should be appropriately identified and treated, whether by elimination for solvency assessment purposes or through consistent treatment of the transaction in the determination of the levels of capital requirement and resources of the insurer. For example, some solo supervisors exclude or limit intra-group exposures as a form of eligible capital or adjust the capital requirement of the entities to reflect the risks associated with the transaction.

42. While intra-group transactions may be a beneficial tool for risk and capital management within a group, they create risks for an insurer that can be more difficult for the solo supervisor to identify and assess. Cooperation among supervisors and effective information exchange is needed in order to have a clear view of the intra-group financing arrangements within a group and to appropriately reflect such arrangements in the solvency assessment of the individual insurer.

*The risks from being a member of a group*

43. Supervision of an insurer on a purely solo basis may not adequately capture all the risks that affect it as a result of being part of a group. Increasingly for insurance groups, the most significant management and policy decisions are taken at, or triggered by, the head of the group. Risk culture may be defined at the group level and risk management for the subsidiaries may be embedded in a group-wide risk management system. Risks for the subsidiaries may be increased if management at group level do not fully understand the subsidiary's business, do not qualify as appropriately 'fit and proper' persons to manage insurance business or have an inappropriate risk tolerance with respect to the subsidiary.

44. Particular risks which may affect an insurer which is part of a group are reputational risks and contagion risks (as already discussed in paragraphs 32 and 33). These risks mean that, in effect, an insurer which is a member of a group cannot be considered as fully immune from the effects of financial and operational stress in other parts of the group - regardless of the extent to which the particular insurer may be considered to be 'ring fenced' as a separate entity. In assessing the risks of an insurer, the reputational and contagion risks as a result of being a member of a group therefore need to be considered.

45. As part of the overall solvency assessment, the governance, risk management and internal controls of the insurer need to be considered: regard needs to be had for any particular risks to the insurer from being part of a group. Cooperation between supervisors is a crucial issue in this respect– it allows all supervisors involved to be better informed, providing access to information that may be useful in understanding the nature of the group's operations and thus improving a supervisor's ability to fully reflect the risks borne by the individual insurer in its solvency assessment.

*Supervisory capacity, collaboration and cooperation*

46. The supervisory capacity within different jurisdictions may vary depending on the level of development of the market and the supervisor. A supervisor's capacity in respect of

the group may be limited by the extent of its authority over entities within the group. The extent to which a supervisor on its own has the capacity to undertake other than solo supervision, or the approach taken to enhancing solo supervision to reflect group risks will necessarily vary accordingly.

47. Collaboration among supervisors involved may improve supervisory capacity overall. Efficient and effective exchange of information between involved supervisors is important in facilitating such collaboration. Differences in solvency and reporting requirements among supervisors may make the effective exchange of information difficult in practice and may result in additional regulatory costs and administrative burden for the insurers. Cooperation among supervisors is crucial in reaching agreements on common supervisory requirements and harmonised supervisory reporting.

*Conflicts of interest, levels of policyholder protection and distribution of capital within a group*

48. Where an entity is a member of a group, appropriate consideration needs to be given to the potential for conflicts of interest to arise between entities and the relative level of protection of policyholders of the various entities within the group. The important role of solo supervision in ensuring the protection of policyholders at the entity level, in particular in a situation of financial crisis, should be given due regard in these considerations.

49. A common concern of the solo level supervisor can be that, in times of stress, they may lack the authority to compel the group to support the individual insurer and that the group may, based on the limited liability of each entity within the group, decide to withdraw support from a member in financial difficulty. Further, financial support from the parent to its subsidiary entities may be subject to influences from the policyholders of the parent (where the parent is also an insurer) and the protection of their ultimate interests. This may impact the flow of capital within the group, in practice, and may also imply an inequity in the protection of various policyholders within the group. For example, if capital is held mainly at parent level, this may result in the policyholders of the parent having more protection than policyholders of the subsidiary entities. For these reasons, the assessment of the appropriate distribution of capital within a group (between the legal entities) is an important matter for group-wide supervision.

50. A coordinated response by the supervisors involved in the supervision of the entities within the group may improve the outcome of any actions to protect policyholders' rights, in particular, in a crisis situation.

## 5 General challenges of group-wide solvency assessment and supervision

51. Broadly, the challenges of group-wide supervision and solvency assessment comprise challenges that relate directly to the financial requirements of solvency assessment of the group - for example, valuation of assets and liabilities, determination of capital requirements and resources, treatment of aggregation and diversification of risk - as well as those challenges that relate to the other aspects of group-wide supervision - for example, supervision of governance, risk management and reporting and disclosure.

52. Some of these challenges have already been described in section 4 in the context of enhancing pure solo supervision of an entity which is a member of a group to take into account the group effects. In this section these challenges are discussed from the particular focus of conducting group-wide supervision. Further, it should be noted that some of these

challenges apply within a single jurisdiction whereas others are particularly relevant for group-wide supervision on a cross-jurisdictional basis, where many of the legal and political challenges in group-wide supervision arise.

53. Below, the following broad areas of challenges are considered in more detail:

- intra-group transactions and gearing of capital;
- fungibility of capital and transferability of assets and consequences on the distribution of capital within a group;
- complexity of group structures and scope of group-wide supervision, including the treatment of non-regulated entities;
- diversity of legal and regulatory frameworks and regulatory arbitrage; and
- measurement of risk dependencies and aggregation of risks, including diversification effects.

54. In section 6 and 7 various approaches to group-wide supervision are discussed, and the way in which they address these various challenges explored.

### 5.1 Intra-group transactions and gearing of capital

55. The nature of intra-group transactions and exposures was discussed in section 4 in the context of enhancing the solo supervision of an entity which belongs to a group.

56. When taking a group-wide approach to supervision, to avoid the risk that the financial position of individual entities in the group or of the group as a whole may be overstated, the solvency assessment should similarly identify and appropriately address any double gearing or internal creation of capital and intra-group transactions, including internal participation structures and intra-group transfers of capital and risks.

57. As a first step, in considering the capital requirements on a group-wide basis, it might be assumed that the individual capital requirements of the entities within the group and of the parent of the group properly reflect the risk borne. However, intra-group transactions and exposures can occur across a group, with consequences that are more difficult to assess. For example, when a subsidiary makes a loan to siblings or its parent, the loan may appear as an asset on the subsidiary's balance sheet and may continue to contribute to its core capital even though there is a risk it may not be repaid when needed.

58. As the structure of groups becomes more complex and as the types of products available for transfer of risk and/or capital within a group become more sophisticated, the ability to readily identify and understand the nature of such intra-group exposures becomes more challenging for involved supervisors. A group-wide perspective to the supervision of the group contributes to better understanding and assessment of such risks and exposures. But any such group-wide perspective will rely on the effectiveness of coordination and exchange of information between the involved supervisors. In the particular case of a group operating on a cross-jurisdictional basis, differences in legal requirements, disclosure requirements and product types and classifications can further contribute to these challenges.

59. Options with regard to addressing intra-group transactions and exposures under a group-wide solvency assessment are discussed in section 7.

*Off-Balance Sheet Items*

60. Intra-group exposures may be created through arrangements which do not appear on the balance sheet of the parent or the individual insurers within the group. While not unique to entities within a group, the complex structures and interrelationships between entities within a group makes the consideration of such arrangements by supervisors important. Off-balance sheet items include intra-group guarantees, contingent liabilities, contingent assets (e.g. calls from members in a mutual) and exposures through special purpose vehicles (SPVs) and represent elements of risk and/or risk mitigation which may not be shown explicitly on an insurer's balance sheet. Such arrangements may have an adverse effect on the solvency position of an insurer and therefore may require special supervisory focus in order to enable them to be identified and appropriately treated in the solvency assessment of the group.

61. Recent market events (October 2008) have highlighted the need for greater understanding of any off-balance sheet items, from an accounting and financial reporting perspective. The appropriate transparency and disclosure of such items and transactions is critical and is the focus of much consideration amongst relevant international standard setting organisations, including the International Accounting Standards Board.

62. There are particular challenges for supervisors associated with off-balance sheet items and their treatment when assessing the solvency of an insurance group. The role and nature of off-balance sheet items in regards to insurance groups is a subject which will need further examination and analysis.

## 5.2 Fungibility of capital and transferability of assets within a group

63. The issue of fungibility of capital and the associated transferability of assets within groups is acknowledged as a particularly broad and complex topic. The recognition of a group as a single integrated entity is strongly promoted by the insurance industry. From the perspective of the insurance group, the amount of regulatory capital could be reduced when the supervisor:

- allows a consolidated approach to measuring the capital adequacy at group level; and
- recognises diversification effects at group level, and the appropriate allocation of capital resources to solo level.

64. This perspective, however, requires an acceptance of the fungibility of capital resources and the associated transferability[7] of the assets representing the capital resources within the group. From a supervisor's perspective, the fungibility of capital and transferability of assets is not a simple nor static consideration. The assessment is likely to change depending on the circumstances of the group and under different scenarios and market situations.

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[7] Fungibility of capital resources often refers to capital of the group being readily available, when required, to meet the losses of the group, regardless of the entity within which those losses arise.

Transferability of the assets representing the capital resources here refers to the actual ability of one entity to transfer assets to another entity at the time when the financial support is needed.

The term 'financial support' is used to indicate the movement of real assets between entities within a group, as opposed to the term 'group support' which is used to indicate a commitment or guarantee to provide financial support in certain circumstances (refer to section 7.2).

65. When assessing the capital position of a group, supervisors will need to consider, among other issues, the extent to which assets may be considered transferable between entities within the group, having regard for the rights that holders of capital instruments have over the assets of the legal entity. A conflict of interest can arise between the use of assets to provide financial support to the policyholders of an entity which is in financial difficulty, and the possible threat this may cause to the policyholders of the entity providing the support.

66. Further, legal constraints on the transferability of assets in groups which operate on a cross-jurisdictional basis present a particular challenge. When the insurance group consists of insurers established in more than one jurisdiction, it becomes more complex to recognise the fungibility of capital within the group as the legal and regulatory restrictions on transferability of the assets representing the capital - in particular in times of stress - become more complex.

*Distribution of capital within a group and levels of policyholder protection*

67. Group-wide supervision enables the supervisor to assess the adequacy of capital for the group as a whole and of its distribution between entities within the group.

68. As noted in paragraph 22, one of the possible considerations of group-wide supervision is to facilitate equity in policyholder protection across entities within a group. However the inherent challenge in pursuing this objective, in practice, is also acknowledged - as it is the entities which are liable to the policyholders, it is still necessary to have regard for the adequacy of the capital at an entity level. Solvency at the solo level will always be an essential feature of the protection of policyholders.

69. A challenge of group-wide supervision, therefore, lies in exploring the extent to which, in a group operating on a cross-jurisdictional basis, the policyholders within that group can be afforded appropriate levels of protection. There are many factors which impact on this issue including the distribution of capital within the group and the relative protection available to policyholders in different markets, particularly in situations of financial stress.

*Liquidity Risks*

70. The evidence of recent market conditions (October 2008) has emphasised that liquidity risk, while generally not as significant a risk as for the banking industry, can be a significant issue for insurers and an issue which supervisors need to be aware of, in particular, in the group-wide solvency assessment of insurance groups and financial conglomerates including insurers. A key challenge for supervisors is to understand the management of liquidity in the insurance group and the implications of any intra-group exposures between the insurance entities within the group for this liquidity management. In particular, focus should be had for the appropriate assessment of the liquidity position of the insurance group under stressed scenarios.

71. Liquidity risk may also be closely linked to the reputational and contagion risks faced by groups generally (for example, a down grade of the rating of the parent entity) and the broader systemic risks of the financial sector. Again as has been evidenced by the recent market situation, insurance groups cannot be assumed to be immune from such exposures.

72. In conjunction with developing a better understanding on the implication of different legal and regulatory requirements on the fungibility of capital within a group, supervisors also need to develop a clear understanding of the factors that affect the transferability of assets, the ability of the group to redistribute capital as needed, the liquidity of the assets within the group and how this would be achieved in practice and under different scenarios.

### 5.3 Complexity of group structure and scope of group-wide supervision

73. Insurance groups operate through a number of different corporate structures which may include one or more of the following:

- a regulated insurer parent company
- a non-regulated entity or holding company as the ultimate controlling entity
- non-regulated entities under the ownership/control of the regulated parent or non-regulated holding company
- partially owned/controlled entities, either regulated or non-regulated.

74. A system of group-wide supervision requires the establishment of clear and transparent principles or criteria for the definition of a group and the identification of entities within the scope of the group-wide supervision. The issue of ownership, control of, or significant influence (e.g. through large minority holdings) over, the entities within a group is an important consideration. Usually a system of group-wide supervision would assume that the parent or holding company has control over the individual entities within the group and hence the definition of control becomes important. In the case of groups operating on a cross-jurisdictional basis, these challenges may be amplified as the group structure becomes more complex and the definitions of control vary by jurisdiction.

75. An equally relevant and important consideration in this context is the issue of supervisory authority. A system of group-wide supervision cannot be effectively established on a global basis if the relevant supervisors do not have adequate powers and authority to supervise the entities within the group and/or the group parent or holding company.

76. The supervisory capacity within different jurisdictions may vary depending on the level of development of the market and the supervisor. A supervisor's capacity in respect of the group may be limited to the extent its authority extends only to an entity within the group. The extent to which a supervisor on its own has the capacity to undertake other than solo supervision, or the approach taken to group-wide supervision will necessarily vary accordingly.

*Non-regulated or not wholly owned entities*

77. The task of group-wide supervision and of assessing solvency on a group-wide basis becomes more complex in cases where entities within the group are not wholly owned or are non-regulated. Despite the limited ownership of an entity or the legal separation of a non-regulated entity, it is often not possible in practice to isolate the regulated entities within the group from the risks associated with these other entities. Any financial or other problems emerging in these entities can affect the financial strength of the regulated entities either directly through intra-group transactions and exposures between the entities or through second order effects of contagion and reputational risk.

78. The importance of group-wide supervision extending to have regard for the risks and financial position of a non-regulated entity within the group is not in question. The treatment for group supervision purposes of the non-regulated entities is an important and difficult question which the IAIS is currently examining. Similarly the scope for adequate supervisory authority and powers to undertake such supervision, to the extent considered appropriate, and the differences in the relative supervisory authority in different jurisdictions, are also issues warranting further consideration.

*Non-regulated holding companies*

79. Particular consideration should be had for the case where the group's parent is a non-regulated holding company. Specific supervisory needs regarding holding companies may arise in respect of particular aspects of the supervision of groups: the areas of capital assessment, governance, risk management and internal controls are of particular importance in group-wide supervision and solvency assessment and should be extended to the parent or holding company in the group structure.

80. If the parent company of a group is an insurer (or another regulated entity), supervisors may use their powers to assess the impact of its holdings in other group entities on its risks and its financial position. However, in the case of a jurisdiction where the holding company is not regulated, group-wide supervision may or may not be possible. Where it is possible, some difficulties may arise in the scope of supervisory authority and powers over that holding company. In some jurisdictions, a level of supervisory authority over the holding company has been established[8]. However, it may not be possible under the legal framework of a particular jurisdiction to extend supervision to such non-regulated entities. To a greater or lesser extent, reliance may need to be placed on the cooperation and coordination between involved supervisors.

81. The Principles on Group-Wide Supervision includes the following commentary in this respect:

> "It is important that, in each jurisdiction, legislation is in place to grant the necessary power to the supervisor to adequately supervise groups based in its jurisdiction…... A comprehensive system of group-wide supervision cannot be established on a global basis if the relevant supervisors do not have adequate powers. This aim could be reached either by direct means where the supervisor has explicit authority and powers over the head of the group, or through the use of a follow-up approach where the supervisor has adequate power and authority over the regulated insurer to access information in respect of the head of the group".

## 5.4 Diversity of legal and regulatory frameworks and regulatory arbitrage

82. In order to establish an efficient and effective group-wide supervision framework, it is necessary to take into account that differences may exist in the legal and supervisory regimes and professional practices in each jurisdiction.

*Legal and political challenges associated with cross-jurisdictional groups*

83. The law of a jurisdiction will govern an insurance entity operating in that jurisdiction. This includes company law, insolvency law and contract law. An insurance group operating on a cross-jurisdictional basis - whether through branches or separate insurance entities - will need to deal with differences that may exist between the laws of the various jurisdictions in which it operates.

84. A key challenge in developing effective supervision on a group-wide basis is the need to recognise these legal differences and understand the implications these may have on the group overall and the individual entities that make up the group. In particular,

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[8] For instance, in Australia the supervisor generally authorises the non-operating holding company (NOHC) in a non-life insurance group (refer to Annex 4).

consideration needs to be given to the implications under stressed situations. It will be at such times that the jurisdictional focus, and the enforcement of jurisdictional law to protect the policyholders in that particular jurisdiction, will become most prevalent.

85. Given recent market events (October 2008), it is clear that supervising insurance groups under these circumstances is complex and challenging. Further exploration of these issues will be required to better understand the inter-linkages and relationships that legal and political challenges present for supervisors and groups themselves regarding solvency matters and general financial stability of the insurance sector more broadly.

*Diversity of prudential supervisory regimes and professional practice*

86. Prudential supervisory requirements vary from jurisdiction to jurisdiction. Such diversity is, in part, a consequence of the flexibility needed to adapt the requirements to the social, economic, legal and political situation of each jurisdiction. It is also a reflection of the variations which exist in local insurance markets and products. Requirements also vary for historical reasons, because supervisory regimes have evolved independently and over different timeframes.

87. Annex 2 sets out a comparison of the solo basis solvency frameworks of a number of major jurisdictions or regions - the EU, USA, Japan, Canada, Australia and Switzerland. In essence, this analysis confirms that, while there is some commonality in the principles underlying solvency assessment and the structure of solvency requirements, there is no common, globally accepted view of how and at what level of calibration these solvency requirements should be set.

88. The IAIS standards and guidance, including those on the structure of regulatory capital requirements, are intended as a key reference for jurisdictions in developing and updating their own solvency regimes and supervision. The IAIS expects that the solvency regime that applies in a jurisdiction will over time be developed towards conformity with the IAIS standards. However, the IAIS recognises that its papers do not prescribe a specific solvency regime and that the detailed application of these standards is likely to continue to differ from jurisdiction to jurisdiction.

89. When considering group-wide solvency assessment of groups operating on a cross-jurisdictional basis, these differences at a jurisdictional level become particularly evident, making the objective of effective supervision on a group-wide basis challenging in practice. This may result in the need for extra effort towards coordination among supervisors.

90. Diversity may also exist in accounting and actuarial standards and methodologies, which are key issues in solvency assessment both at solo and group level. In the case of internationally active groups, differences in accounting and actuarial practices between the different jurisdictions where the group operates may make group-wide supervision more difficult.

*Regulatory arbitrage*

91. The development and implementation of international standards, in particular IFRS accounting standards, IAIS prudential standards and guidance, and IAA practice notes, are expected to contribute to more convergence in supervisory regimes and practices. However, regulatory arbitrage may occur where differences in regulation or complexity in regulation provides an opportunity for selection by a regulated entity of that element of regulation which best suits its commercial or competitive objectives.

92. Arbitrage may occur at different levels – within a regulated sector between different jurisdictions (to the extent there is variation in the regulatory bases and the jurisdictions do not take measures necessary to avoid it) or between regulated sectors (for example, between the insurance and banking sectors).

93. Within the insurance sector, due to the lack of harmonisation of solvency standards there is potential for regulatory (including accounting) arbitrage – e.g. where an insurer deliberately locates in a jurisdiction where there are lower regulatory standards to gain a competitive advantage. (Clearly there may be other influences on such decisions, such as reputational risk.) Regulatory arbitrage may also arise through intra-group reinsurance to an insurer in a jurisdiction with lower regulatory standards. It is important that the capital adequacy of the reinsurer is taken into account in assessing the solvency of the cedant.

94. Further, as the existence of financial conglomerates becomes more prevalent, regard needs to be had to the potential for regulatory (including accounting) arbitrage between insurers and other financial sectors. The extent of harmonisation of capital requirements for banking entities and insurers, and the potential for regulatory arbitrage as a consequence, is a complex issue to be further considered.

### 5.5 Measurement of risk dependencies and aggregation of risks

95. At the solo level, the assessment of the overall risk to which an insurer is exposed addresses the dependencies and interrelationships between risk categories as well as within a risk category. This includes an assessment of diversification effects between different risk types and of the appropriateness of an allowance for such effects in the determination of capital requirements. On the other hand, the assessment also identifies and addresses any significant risk concentrations, for example to economic risk factors, market sectors or individual counterparties.

96. The issues around the measurement of risk dependencies and aggregation – the treatment of risk concentrations and allowance for the effects of risk diversification – are equally relevant in the context of supervision on a group-wide basis.

*Risk concentrations*

97. Risk concentration refers to exposures with the potential to produce losses large enough to threaten the financial health of the group or entities within the group and/or the ability of the group to maintain ongoing operations. Risk concentrations may arise in relation to assets, liabilities, off-balance sheet items and through the processing of transactions. They may arise within or across different risk categories (underwriting, credit, market, liquidity and operational risk) throughout the group.

98. In the April 2008 report of the Joint Forum - Cross-sectoral review of group-wide identification and management of risk concentrations - the findings indicated that identification and management of risk concentration mainly occurs within risk category (that is, on a silo basis). Given the clear and increasing interrelatedness of risk, more horizontal risk management tools - managing risk concentrations across categories - are necessary and are starting to be developed. The establishment of enterprise risk management frameworks indicate a more integrated approach to management of risks on a group-wide basis, recognising the benefits of risk diversification as well as the risks of concentration. Other useful approaches to identifying and managing risk concentrations include stress testing and scenario analysis.

99. In the context of recent market events (October 2008), the importance of appropriate consideration of the potential effects from concentration of risks is clearly evident. The

growth of risk transfer markets and the increasing complexity of products available reinforces this need. Consideration should extend to not only the direct effects of risk concentration, but also the potential second order effects – for example, the liquidity risk associated with a sharp decline in the value of an asset to which an entity has a concentrated exposure.

*Risk diversification*

100. Diversification and pooling of risks is central to the functioning of insurance business. Diversification means that where individual risks are not fully correlated the exposure to the aggregated risks will generally be lower than the sum of the exposures to the individual risks. This is the case since where a collection of individual risks is observed these risks will not all typically move "in the same direction", i.e. where an adverse event crystallises with respect to one risk, this may be off-set by more favourable developments with regards to other risks.

101. A distinction can be drawn between *horizontal diversification* and *vertical diversification*. Horizontal diversification occurs where risks of the same type are pooled. It is related to the law of large numbers which states that the volatility of the average amount of a claim payment decreases as the number of claims increases. Vertical diversification is achieved through pooling different types of risk. For example, a portfolio of life insurance contracts which are susceptible to mortality risk may be combined with a portfolio of contracts susceptible to longevity risks to reduce the insurer's overall exposure to a change (either an increase or a decrease) in the level of mortality rates.

102. It is also useful to distinguish between the various levels of risk aggregation that may lead to diversification effects. As well as aggregation within a risk type, or across different risk types, the aggregation may also relate to other levels such as the structure of the insurer's business – for example, across business lines, geographic regions and/or across entities within the group.

103. When assessing diversification effects, it is important to note that typically dependencies between risks will increase under stressed conditions. This means that correlations between events relating to the tail of the risk distributions of individual risks will often be stronger than between events that occur under "normal" conditions. One challenge in assessing diversification effects is the limited availability of data, particularly in respect of such extreme events.

104. This observation is of particular importance where less sophisticated methods are used to quantify diversification effects, as would typically be the case in the context of standardised methods to derive regulatory capital requirements.[9] Such methods will often rely on using correlation techniques. However, correlation measures the degree of linear dependencies between risks and would generally not capture non-linear tail dependencies. Therefore, particular care is needed when setting correlation coefficients for such purposes in order to ensure that the resulting capital requirements adequately reflect the underlying risks.

*Recognition of diversification effects in calculating regulatory capital requirements*

105. For an assessment of the overall risk that an insurer is exposed to it is necessary to address the dependencies and interrelationships between individual risks both within and across different risk-types.[10] This implies that, for a determination of risk-based regulatory

[9] Refer to the IAIS Standard and Guidance paper on the structure of regulatory capital requirements.

[10] Refer to the Guidance paper on the structure of regulatory capital requirements

capital requirements, any diversification (as well as concentration) effects between different risks should generally be taken into account.

106. However, when deciding on the extent to which diversification effects should be reflected, regard should be had to the supervisory intention associated with the regulatory capital requirement in question and to the consequences of its breach. Generally, for regulatory capital requirements which trigger more severe supervisory actions, emphasis needs to be placed on ensuring their robustness and reliability as a safety net for policyholders, especially under stressed conditions. In particular, this applies to the determination of the Minimum Capital Requirement (MCR). This may suggest recognising diversification effects in these circumstances to a lesser extent, if at all, relative to capital requirement levels which are more focused on delivering a risk-based assessment from a going-concern perspective, as is the case for the Prescribed Capital Requirement (PCR).

*Diversification effects in the context of a group-wide solvency assessment*

107. In the context of a group-wide solvency assessment, diversification effects between assets and liabilities across the different entities in the group becomes relevant.

108. If the group is regarded as one single entity so that any asset in any of the group's entities is available for meeting any commitment (liability) in any other entity of the group, a diversification effect for the whole group will emerge. Under this assumption, the offsetting of risks between the assets and liabilities of the individual entities within the group will give rise to group diversification effects which are in addition to the diversification effects on a solo level and which will lead to a reduction in the required capital for the group.

109. In practice, however, there are likely to be restrictions on the fungibility of capital resources and the transferability of assets reflecting the capital resources within the group, so that the idealised assumptions described above will generally not be met in full. This implies that the solvency position of the group (regarded as a collection of individual entities) becomes more complex and is no longer fully described by considering the group's consolidated financial position.

110. Whereas diversification effects between assets and liabilities originating from different entities in the group will continue to exist, an unrestricted recognition of such effects in the form of a determination of required capital and capital resources based on a "pure" consolidated approach may no longer be sufficient and may call for further analysis of and appropriate adjustment to the solvency determinations.

111. The treatment of diversification effects under various approaches to group-wide supervision is explored in more detail in section 7.

# 6 Approaches to group-wide solvency assessment and supervision

## 6.1 Introduction

112. There is general agreement among insurance supervisors about the need for group-wide solvency assessment. However, there can be different regulatory and supervisory approaches to group-wide solvency assessment and different approaches to how group-wide supervision is implemented in practice.

113. In exploring these different approaches to group-wide regulation and supervision, it is recognised that the approach taken will be influenced by the legal and regulatory regimes of the involved jurisdictions and may also be affected by the circumstances of the particular group (the nature of its business, operational and management structure). There is no one right approach to group-wide supervision, and the approach adopted in each jurisdiction needs to recognise the particular circumstances and the objectives established for that jurisdiction.

114. In considering an approach to group-wide supervision regard should be had for the broad considerations set out in paragraph 22. As discussed in paragraph 23 there can be tension between the interests at the entity and/or jurisdiction level and those at the whole group and/or global level. This tension needs to be acknowledged and considered in any approach to group-wide supervision.

115. In practice the approach to group-wide supervision may reflect many factors, including:

- the jurisdictions within which the group operates and the differences and similarities between their legal, regulatory and solvency regimes, including supervisory powers and authorities
- the complexity of the group structure and the relative materiality of the particular insurer within that group, e.g. regulated and non-regulated entities, insurance and non-insurance sector companies
- the management structure of the group, and the extent to which it operates as a single integrated entity or as a group of separate entities
- the relative solvency position of entities within the group, when compared on a consistent basis taking into account the triggers for supervisory intervention in each jurisdiction.

*Regulatory approach to group-wide supervision*

116. There are potential benefits to the effectiveness of supervision where there is optimal alignment, from a supervisory perspective, between the supervisory approach and the management and operational structure of the group. However, where a group has taken a holistic, group-wide approach to its own risk and capital management, it is likely that the management and operational structure of the group differs from the strict legal structure of the group. Ultimately, it is the legal entity structure which defines the rights of policyholders and against which policyholder protection objectives are generally defined.

117. At a philosophic level, a regulatory approach to group-wide supervision should consider the appropriate balance between the two perspectives of:

- a legal entity focus to supervision of the group – an approach to group-wide supervision which regards the group more as a collection of individual but interrelated legal entities

- a consolidated focus to supervision of the group – an approach to group-wide supervision which regards the group more as a single integrated entity.

It is recognised that under either approach the protection of policyholder entitlements as defined at the legal entity level needs to be secured. (Refer to section 6.2 for more discussion of these two supervisory perspectives and how they are reflected in different approaches to group-wide solvency assessment.)

118. In considering the appropriate balance between these two perspectives, regard should be had for the degree to which it is believed groups have integrated management and operations and manage their risks and capital on the basis of a single integrated entity. For instance,

- the extent of control of a parent company over the various entities within the group
- the extent to which there are common members of boards and senior management teams across group entities
- the use of a holistic, integrated risk management
- the use of an internal model applied on a group basis
- the extent to which capital is truly fungible within the group.

*Practical approach to group-wide supervision*

119. Equally important as the philosophical regulatory approach is the practical implementation of supervision on a group-wide basis. The relative weight given to the roles of solo supervisors and any group-wide supervisor, and the use of mechanisms for coordination and information exchange between involved supervisors are important considerations in determining the approach to group-wide supervision.

120. Group-wide supervision supplements, and does not remove, the need for solo supervision.

121. The extent to which supervisory practice places relatively greater weight on the roles of the solo supervisors or a group-wide supervisor would be expected to depend on the degree of collaboration and coordination between supervisors and the availability and effectiveness of various coordination mechanisms in the regulatory and supervisory structures, including:

- the capacity for exchange of information, which will depend on the harmonisation of information and reporting bases and confidentiality considerations
- the extent of mutual reliance or recognition among supervisors
- the level of consistency or ease of comparability of solvency regimes e.g. valuation bases and regulatory capital requirements
- the use and effectiveness of supervisory colleges
- the capacity to designate a group-wide supervisor, and the clarity of authority and powers of that group-wide supervisor
- the legal and political circumstances.

122. Also, in practice, there will be a relationship between the philosophical approach to group-wide solvency assessment and the practical implementation of that supervision,

including the need to consider the mechanisms for supervisory coordination and to clearly establish the roles of solo and group-wide supervisors.

123. Development in supervisory organisation across jurisdictions is likely to improve a supervisor's flexibility to select the most appropriate method of group-wide supervision and solvency assessment.

### 6.2 Different approaches to group-wide solvency assessment

*Approaches with a legal entity focus*

124. Under a group-wide solvency assessment approach which takes a legal entity focus, the group is considered as a set of interdependent legal entities, and not one single entity. Greatest weight is given to the legal structure of the entities within a group rather than the management or operational structure of the group, recognising the ultimate legal entitlements of policyholders and shareholders as defined by those legal structures.

125. Risks are assessed and capital requirements and resources are determined for each legal entity in the group, with group impacts - including intra-group exposures - reflected within the determinations for each legal entity.

126. The capital requirements and resources are expressed as a set of connected results for each legal entity. The basis on which capital requirements are determined under a legal entity focus will depend on how the approach is implemented in practice -

- where implemented with a strong reliance on the role of the solo supervisors, the regulatory capital requirements established at the solo levels are likely to be preserved. In this case, close coordination between the solo and any group-wide supervisor is essential to achieving effective group-wide supervision under such an approach.
- where the approach is implemented with a strong role for a group-wide supervisor, a common capital requirement basis is likely to be applied at the group-wide level which may differ from that applied by the solo supervisors. In this case, the legal entity focus can provide a useful supplement to solo supervision, providing a consistent second opinion on the capital required to cover the risks of individual entities within the group.

127. The test of solvency under an approach with a legal entity focus is applied at the legal entity level.

128. A number of jurisdictions approach group-wide supervision based on a legal entity focus. Current examples include:

- USA/NAIC Legal Entity Method
- Swiss Group Structure Model

Refer to Annex 3 for a description of these current examples.

*Approaches with a consolidated focus*

129. Under a group-wide solvency assessment approach which takes a consolidated focus, the group is treated as a single integrated entity for supervision purposes. Significant weight can be given to the management and operational structure (rather than the legal structure) of the group, and to the:

- the synergies between the entities within the group
- the management of risk and capital within the group
- the fungibility of capital and transferability of assets among entities within the group.

130. The consolidated focus can reflect the view of management and of shareholders, and thereby align supervision with the management/operation of the group.

131. Group-wide solvency assessment can be undertaken for the single consolidated entity. The group might be considered to be solvent if the capital resources determined for the group exceed its capital requirements, although the supervisory approach may also include, for example, that each insurer in the group simultaneously meets specified individual capital requirements.

132. Enterprise risk management frameworks and internal models can be assessed according to the operational structure of the group and a single capital requirement and amount of capital resources can be determined for the group as a whole.

133. In general, the role of a group-wide supervisor would be important under such approaches, and would be supplemented by other mechanisms to facilitate coordination between involved supervisors and enhance the effectiveness of supervision of both the overall group and the insurers within the group.

134. However, in practice the features of a consolidated focus to group-wide supervision have been implemented to varying degrees. A range of approaches to group-wide supervision are used in practice, many of which can be considered intermediate approaches with characteristics of both a legal entity and consolidated focus, and with greater or less emphasis on the relative roles of solo and/or group-wide supervisors. For example, one such intermediate approach to group-wide supervision would be a supplementary approach (refer to the description of the EU Solvency I approach in annex 4). Such an approach considers the legal and economic structure of a group of the greatest importance. Solo supervision remains the core of insurance supervision. However, the effects of being part of a group are taken into account. Hence, in order to get a broader and clearer image of the relationships and operations of the group, group-wide supervision is also carried out as a supplement to the solo supervision.

135. A number of jurisdictions are already taking steps to varying degrees along the path towards models for more consolidated group-wide solvency assessment:

- Australian Group supervision model for non-life business
- Canada
- EU Solvency I Insurance Groups Directive
- EU Solvency II Directive Proposal

Refer to Annex 4 for a description of these current examples.

*Relative role of solo and group-wide supervisors*

136. One important foundation for effective group-wide supervision, in particular in relation to groups operating on a cross-jurisdictional basis, is the existence of mechanisms of cooperation and information exchange between supervisors.

137. Within the range of approaches to group-wide supervision, different methods may be used to facilitate the necessary communication and cooperation between involved supervisors. The mechanisms used and the extent of formality of arrangements in place will vary according to the circumstances of the group and of the legal and supervisory regimes in the jurisdictions in which it operates.

138. Effective cooperation and coordination among involved supervisors should enable a view of the overall group position to be established, and allow involved supervisors to get a better understanding of the entities they supervise. Where a group has taken a holistic, group-wide approach to its own risk and capital management including governance and internal controls, it is likely that a group-wide supervisor will be better able to monitor all the relevant risks of the group and consider whether the group's risk and capital management is adequate. This is particularly the case where the group structure and/or the nature of intra-group exposures is complex.

139. The relative roles of the solo supervisor and any group-wide supervisor should be considered so as to maximise the protection for all policyholders by ensuring that supervisory power is exercised in a proportionate and coordinated way. Complementing the solo supervision of entities within a group with a group-wide focus to supervision, potentially through a designated group-wide supervisor, provides a perspective which can consider the protection of all policyholder rights on a fair basis. In a crisis situation a coordinated response facilitated by the group-wide supervisor may improve the timeliness and outcome of any actions to protect the policyholder's rights.

140. Advances have been made in practice to develop and implement various mechanisms for enhancing the level of coordination and cooperation among supervisors involved in the supervision of groups:

- MoUs and MMoUs
- establishment of supervisory colleges
- designation of a group-wide supervisor

141. The effectiveness of such coordination mechanisms between supervisors depends, to a greater or lesser extent, on the ability of supervisors to understand each other's supervisory regimes and to establish a degree of reliance on each other's supervisory practices. To the extent there is not convergence of supervisory standards and practices, supervisors can pursue processes of "supervisory recognition" in an effort to enhance the effectiveness and efficiency of supervision. Supervisory recognition refers to supervisors choosing to recognise and rely on the work of other supervisors, based on an assessment of the counterpart jurisdiction's regulatory regime.

142. An effective system of supervisory recognition could reduce duplication of effort by the supervisors involved, thereby reducing compliance costs for the insurance industry and enhancing market efficiency. It would also facilitate information sharing and cooperation among those supervisors.

143. As group-wide supervisory frameworks are being developed in many jurisdictions and regions, the potential role of such arrangements in the field of group supervision is also emerging.

144. While mechanisms for coordination and information exchange have been established, these are often at a national or supranational level, or consider the more limited circumstances of a sector of the industry (such as mutual recognition for reinsurance supervisors). To facilitate international coordination of group-wide solvency assessment and supervision, there may be benefit in facilitating the evaluation of the equivalence of supervisory regimes, or establishing a global framework to facilitate supervisory recognition. However, the challenges of extending such mechanisms to an international basis are complex and will require further consideration.

145. It is at this level that many of the challenges discussed in section 5 become most relevant. Where a group operates on a cross-jurisdictional basis, the needs for effective group-wide supervision become all the more important. However the challenges associated with establishing an effective global framework for group-wide supervision also become more challenging and require further consideration.

# 7 Meeting the particular challenges of group-wide solvency assessment and supervision

146. The intention of this section is to link the challenges of group-wide solvency assessment and supervision presented in section 5 with the various approaches to group-wide solvency assessment and supervision described in section 6. The section discusses some options for addressing the identified challenges under various approaches to group-wide supervision. As the development of group-wide supervisory models is evolving in practice, the discussion of options for addressing the identified challenges should be considered as representing some of the current thinking in the industry: it is not intended as a comprehensive nor detailed analysis of these issues and possible solutions. It is recognised that this is an area where further analysis and consideration is required in taking forward the work of the IAIS on group-wide solvency assessment and supervision.

## 7.1 Intra-group transactions and gearing of capital

147. There are various possible methods for undertaking group solvency assessment, identifying and having appropriate regard to intra-group transactions and exposures.

*Approaches with a legal entity focus*

148. Approaches to group-wide solvency assessment with more of a legal entity focus (refer to section 6.2) allow the effects of intra-group transactions, be it transfer of risk or creation of capital, to be dealt with directly in the determination of capital for each legal entity. Such approaches do not eliminate the effects of intra-group transactions, but measure them appropriately in the capital requirement and/or in capital resources. The key aspect is that transactions are valued on a market-consistent basis and that capital requirements and resources take the economics of intra-group transactions into account.

*Approaches with a consolidation focus*

149. The Joint Forum issued its paper “Capital Adequacy Principles” in February 1999, in which the main concerns identified were double gearing and internal creation of capital. It

described optional methods for the determination of group capital requirements which eliminated these transactions for a financial conglomerate. These methods - which can be broadly classified as reflecting more of a consolidated focus (refer to section 6.2) - are being used in practice in many jurisdictions.

150. In essence two alternative methods are currently used, both of which aim to assess a surplus of assets at group level: aggregation methods and consolidation methods. These methods would, in general, be expected to produce similar results in practice.

151. Aggregation methods determine excesses or deficits of capital at the level of each entity in the group on a solo basis and then aggregate those amounts to determine the surplus (or deficit) at a group level. An advantage of aggregation methods is that they give more straight forward access to the distribution of capital within the group, and the issues of fungibility of capital and transferability of assets may be more readily manageable (refer to section 7.2). On the other hand, it may be difficult to ensure that all entities within the group have been properly taken into account in the calculation. Specific evaluation of, and appropriate adjustment for, accounting differences and intra-group transactions may also be required under these methods.

152. Consolidation methods start with a consolidated group financial statement, calculate a capital requirement at the group level and then analyse the over-all capital adequacy of the group by comparing the capital requirement to group capital resources. An aspect of consolidation methods is that intra-group transactions are already eliminated in the consolidated capital resources and the inclusion of all entities in the determination is clear. Therefore, additional analysis of the distribution of capital within the group, and the fungibility of that capital, is also necessary to verify that the amount and distribution is adequate. In addition when capital is inadequate, this analysis can provide information about the entity or entities within the group which should be required to provide or hold additional capital.

### 7.2 Fungibility of capital and transferability of assets within a group

153. Where group-wide solvency assessment is undertaken with more of a legal entity focus, the challenges of fungibility of capital and transferability of assets are readily manageable: because the focus is on each legal entity within the group, the supervisory approach would generally only recognise capital as fungible and assets as transferable between entities where certain minimum requirements are established. For example, where the transferability of the assets is supported by a contractual arrangement or a legally enforceable arrangement.

154. Where group-wide solvency assessment is undertaken with more of a consolidated focus, the challenges of fungibility of capital and transferability of assets are manageable through further analysis or adjustment to the determined capital requirement. The capital of the group derived from the consolidated balance sheet may reflect an assumption of fungibility of capital between the entities within the groups. If so, it is important to ensure that the hypothesis of fungibility is realistic and to consider the existence of possible impediments to the free flow of assets between entities and under different scenarios.

155. Impediments to the transfer of assets may exist as a consequence of the legal and regulatory environment in which the entities operate, as well as the nature of the capital elements.

*Consideration of the nature of capital elements*

156. Broadly, equity capital (the core capital shown in the consolidated balance sheet of the group) could be considered as fungible to the extent there are no restrictions on

transferability of the assets. Adjustment may also be required in respect of, for example, minority interests - depending on the corporate law of the particular jurisdiction and the proportion owned by the minority interest.

157. Some capital instruments which are not equity capital may be regarded as capital at solo level to the extent that they are able to absorb losses at this level. However, because of the rights of the holders of the capital, they may not be available for absorbing losses in other entities of the group. Such capital should not therefore be regarded as fungible in practice. For example,

- that part of unrealised gains subject to profit sharing provisions (i.e. legal or contractual obligations to share profit with policyholders).
- that part of profit reserves (as distinct from profit sharing reserves) subject to specific rights for specific shareholders
- the condition suspending repayment of subordinated debts may not apply when difficulties are elsewhere in the group, so the right of the creditors of the solo entity will prevail.

158. Certain forms of contingent capital are recognised by some jurisdictions in particular situations, subject to supervisory approval, where payment is regarded as sufficiently likely to be made when needed: e.g. unpaid capital, supplementary contribution in mutual companies. The fungibility of such capital between entities within a group should be considered.

*Transfer of assets within a group*

159. In considering the extent to which transferability of the assets reflecting the capital resources may be reflected in a group-wide solvency assessment, the following issues could be considered in practice:

- the extent to which the parent company has full oversight of the group and its risks as well as a risk management and internal control system that supports the transfer;
- the extent to which a guarantee of financial support is unconditional and irrevocable;
- the financial position of the group overall
- the extent of cooperation between the supervisors and of agreement on the reliability of the guarantee.

160. However the potential constraints on the transferability of assets reflecting the capital resources need to be weighed in these considerations:

- restrictions may exist according to the general commercial law or insolvency law, where the transfer jeopardises the financial strength of the entity making the transfer.
- for regulated entities, regulatory requirements may restrict the financial support they can provide.
- while asset transfer may work well under normal conditions, as soon as one or more entities in the group are in financial difficulty, the transferability of the assets reflecting the capital resources may be hindered by legal restrictions or otherwise.

- where parts of the group are stressed by adverse conditions, the liquidity of the assets reflecting the capital resources in that part may come under pressure.

*Group Support*

161. One possible technique for establishing transferability of the assets reflecting capital resources between legal entities within a group is through a "group support" arrangement. Group support refers to a form of cross-guarantee or a one-sided commitment, between the parent company and one or more of its subsidiaries, that capital will flow when needed. Using this technique, part of the subsidiary capital may be allocated and managed elsewhere in the group. By doing so, groups have greater freedom to apply capital across the group as needed and, in particular, the ability to downstream group level diversification benefits to subsidiaries.

162. From a supervisory perspective, the recognition for solvency assessment purposes of a "group support" arrangement between entities within a group raises a number of specific questions of a legal, technical and financial nature[11].

163. The following are examples of specific questions linked to the issue of group support:

- What are the general conditions under which assets can and must be transferred within the group, either in accordance with insurance regulation or general company/financial regulation?
- What is the value of the commitment by the group in view of its contingent nature and taking into account supervisory powers to require or prevent the actual transfer of assets?
- What process is needed for providing the actual transfer and what assets need to be available to ensure that the support will be provided in a timely manner?
- What are the practical realities in crisis situations?
- What is the supervisory procedure for the approval of group support?
- How will the risks associated with the group support be treated?
- Since the group support regime allows an entity to be funded at a lower level, are there any specific public disclosure requirements?
- What are the consequences in case of failure of the group support?
- What are the consequences in case of winding-up of either the provider or the supported entity?
- How can an equitable protection of all policyholders of the different entities of the group be provided?

[11] This question has been of particular importance in EU discussions, where the Solvency II Directive Proposal considered group support as a new element of capital. This proposal was the subject of much discussion and political negotiation, but has not been approved. Nevertheless, regardless of the outcomes of this proposal in the EU, this approach and the related issues need to be discussed in the IAIS work on group-wide solvency assessment.

- How can the group support and an appropriate treatment of rights of minority shareholders and policyholders of with-profit insurance contracts be made compatible?
- How can an adequate distribution of capital within the group be ensured?
- How can supervisors identify where group support is funded with double gearing or other intra-group creation of capital, which is an obvious source of contagion risk within a group?
- Can group support improve the transparency and efficiency of a group's capital structure?
- Can group support limit the possibilities for regulatory arbitrage?

### 7.3 Complexity of group structure and scope of group-wide supervision

*Non regulated holding companies*

164. When performing group-wide capital assessment, it is important to consider the appropriate recognition of a non-regulated holding company. The options for doing this may vary in practice and can depend on the supervisory approach. Where the supervisory approach reflects a legal entity focus, the capital requirements and solvency of the parent holding company as a solo entity is generally assessed. Where a consolidated focus is used, assessment of the consolidated position of the holding company would generally have regard to any adjustments required to reflect limitations from the consolidation, for example in the fungibility of capital, in practice.

165. It is also important that the supervisory approach gives consideration to other supervisory aspects for the holding company – for example, the governance, risk management and internal control aspects of solvency assessment. The IAIS Principles on group-wide supervision state,

> "…where the head of the group is not itself a regulated entity (for instance, where it is a pure holding company), the group-wide supervisor should have appropriate power and authority to assess and ensure the compliance with corporate governance requirements at the head of the group. This requirement, however, should not be taken to imply that non-regulated holding companies should be treated as fully regulated entities."

166. Some jurisdictions have provisions for limited supervision of holding companies, such as the Member States of the EU under the Financial Conglomerates Directive and a number of EU Member States under their national insurance group regulation. However, where the supervisor does not have supervisory authority over the holding company, it may be possible to use a "follow-up approach"[12] to obtain information about the holding company via its insurance subsidiaries. However, such an approach may have limitations regarding the effectiveness of group supervision in practice, and granting express powers in relation to the holding company to the supervisors would provide a better legal basis.

167. Intermediate holding companies that exist in some groups should be subject to a similar approach as parent holding companies.

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[12] As defined in paragraph 1.2 of the Principles on Group-Wide Supervision (October 2008)

### 7.4 Diversity of legal and regulatory frameworks

168. When considering the nature and level of solvency assessment standards across jurisdictions, it is important to note that this needs to comprise a range of aspects beyond the specific level of regulatory capital requirements used in the various jurisdictions, including:

- the standards used for the valuation of assets and liabilities (and in particular the technical provisions);
- the quality of the risk management and governance frameworks of insurers in the market, and the supervisory framework relating to governance and risk management requirements; and
- the supervisory requirements relating to the determination of available resources for solvency purposes.

169. Given these issues, approaches with more of a legal entity focus may be adopted. Alternatively, under approaches with more of a consolidated focus, one issue that would need to be explored is designing a common methodology for calculating an insurance group's capital requirement and resources at a group level.

*Challenges in designing (a) Common Capital Requirement(s)*[13]

170. There are two broad options which could be considered for the structure of capital requirements at a group-wide level when applying approaches with more of a consolidated focus:

- extending a ladder of supervisory intervention to the group, by introducing both a PCR and MCR at group level
- establishing a single capital requirement at group level – the PCR – and not establishing an MCR at group level.

171. Where a ladder of intervention based on capital requirements is established for group-wide supervision, consideration needs to be given to the supervisory intervention at each level. In particular, the scope for supervisory action, e.g. the winding-up of the group, on a breach of the group MCR.

172. The main rationale for this approach is to meet the principle that consistent supervisory requirements/intervention should apply to insurers and insurance groups considered as single operational entities no matter what legal form they take – one legal entity or many legal entities. Differences should be explicable in terms of differences in economic characteristics e.g. differences in the level of fungibility of capital within the entity rather than differences in legal structure.

173. An alternative approach would recognise that it is difficult to define a capital threshold at the level of the group which triggers ultimate supervisory action, considering that legal actions would generally not be directed towards the group, but rather towards individual legal entities. Under this approach, there is no need to define a group MCR as a separate trigger for ultimate supervisory action.

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[13] The discussions in this section are conceptual and not intended to reflect any existing or proposed supervisory regimes. This section on establishing group capital requirements should be read independently from discussions in other fora on group support arrangements.

*Establishing a Group PCR*

174. The group PCR is the level of group capital above which no supervisory intervention for capital reasons would be deemed necessary or appropriate and should be determined at a level such that the insurer is able to absorb the losses from adverse events that may occur over a defined period and ensure that technical provisions remain covered at the end of the period.

175. While policyholder protection is an objective for all supervisors, the required level of safety may differ in practice between jurisdictions. To set a group PCR it is necessary to set an overall level of safety for determining capital above which no intervention is regarded as necessary, which may present practical difficulties where different safety levels apply at entity level within the group.

176. If the solo PCR is not used as a supervisory trigger, it will still be useful for informational purposes for the supervisor to analyse the financial support that is provided by the group. Such an analysis enables a supervisory review and evaluation of the adequacy of the group's financial resources to include an assessment of the extent to which the group's assessment is lower than the regulatory capital that would be required for the separate legal entities under individual supervision and solvency assessment. It would enable supervisors to assess the level of dependence of each group member on financial support from the group.

177. It is necessary to consider the form of supervisory intervention where a group PCR is used as a supervisory trigger.

*Establishing a Group MCR*

178. For a group MCR to be feasible in practice, the supervisors would need to be able to rely on the fungibility of capital within the group so that individual supervisors' strongest actions would not need to be triggered anywhere in the group unless group capital falls below the group MCR.

179. Because group members are separate legal entities, legal sanctions are likely to apply to them separately in adverse financial conditions making it necessary to monitor the capital positions of group members in relation to their individual MCRs as well as ensuring that the group capital is greater than the group MCR.

180. In order for group-wide supervision based on a group MCR to provide adequate policyholder protection in practice, it is necessary to consider:

- the extent to which legal frameworks permit transfer of assets across the group to support policyholders in all relevant jurisdictions;
- the extent of supervisory authority and powers to intervene when capital falls below the group/individual MCRs.

## 7.5 Recognition of diversification effects

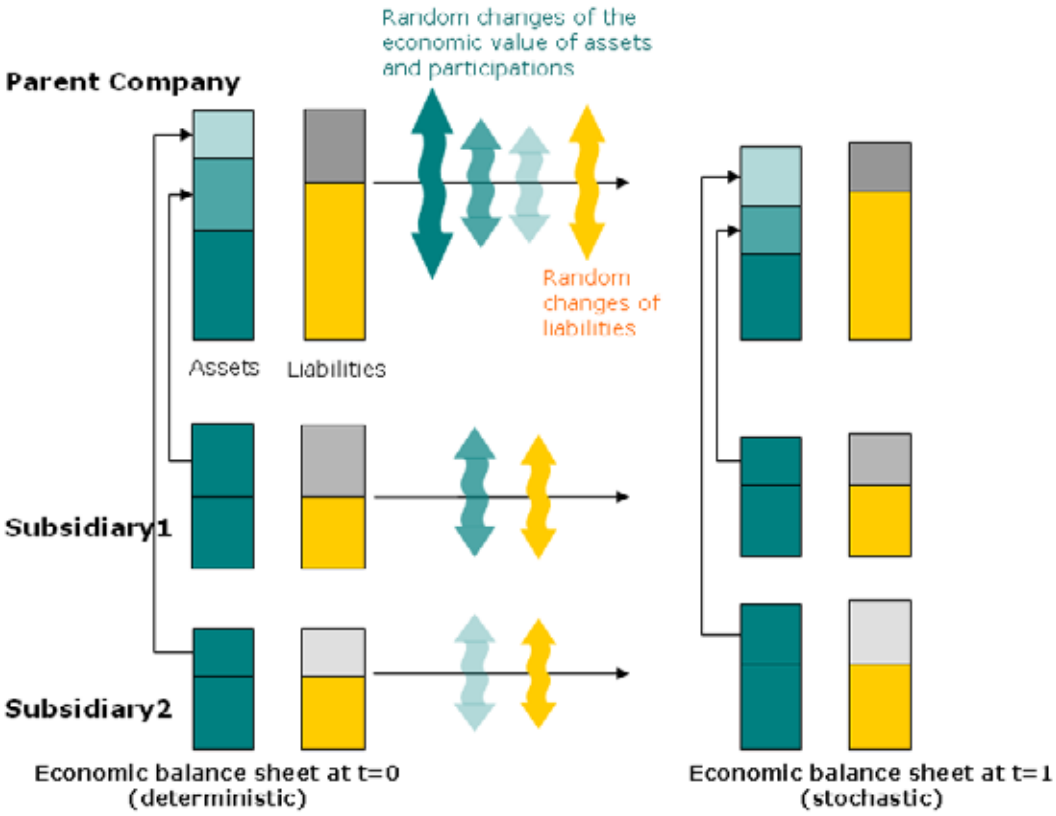
181. Group diversification benefits can be a material consideration in group-wide solvency assessment. Understanding the methods used to aggregate different risks (e.g. correlation assumptions) is critical to the proper evaluation of such benefits.

182. Assessment may also be needed of adverse scenarios in which the integrity of the group may become strained along structural lines, the transferability of assets reflecting the capital resources across the group falls away and the group is unable to take full advantage of diversification benefits. Correlations may also increase in adverse circumstances reducing diversification and increasing concentration of risk.

*Approaches to considering diversification effects*

183. To consider how diversification effects may be recognised under various approaches to group-wide supervision, it is useful to distinguish between the two different philosophical focuses described in section 6 – the legal entity focus and the consolidated focus. To illustrate this by way of an example, we consider the following simple situation of a group consisting of a parent company and two subsidiaries (refer to Figure 2).

***Figure 2: Illustration of Diversification***




184. Under a supervisory approach with more of a legal entity focus, all risks are reflected in the solvency assessment for the entity within the group which is bearing those risks. This includes all risks and effects originating from being a part of a group, and may include.

- reputation, concentration and contagion risks
- diversification, financial support, and economies of scale effects.

These risks and effects may be reflected quantitatively or qualitatively, depending on the sophistication of the particular legal entity approach.

185. In the situation illustrated in Figure 2, the parent company benefits from the diversification of its business with the business of its subsidiaries since the random change of its assets and liabilities is not fully correlated to the changes of the economic value of its participations. Thus, the parent's diversification benefit is effected through the ownership relationship between the parent and its subsidiaries. If no effective risk transfer has taken place from the subsidiary to the parent, then the subsidiary may not count on additional help from its parent if it is needed and the subsidiary therefore cannot be considered to benefit from the diversification in terms of capital requirements. Economically, it is the parent, and only the parent company, who benefits from the diversification, and it is in the parent's capital requirement where the risk to economic value of its subsidiary offsets its other asset and liability risks.

186. If, however, in the situation of Figure 2 the parent has given, for example, reinsurance protection to its subsidiaries, then from the subsidiary's point of view all its assets and liabilities are considered jointly with the reinsurance contract. This reduces the risk of the subsidiary, thus reducing its PCR and at the same time, increases the risk to the parent (as it has taken more risk through a legally binding and enforceable arrangement with its subsidiary), thus increasing the PCR of the parent.

187. Both risk and capital requirements have been transferred from the subsidiary to the parent but the overall diversification for the group remains unchanged. The parent now considers the diversification of its direct business taken together with the reinsurance acceptance from its subsidiary to calculate its diversification benefit while the subsidiary considers its business net of the reinsurance. Although group diversification is unchanged, the combined capital requirements may change because of the structure of the intra-group transactions and the fungibility of capital and transferability of assets. Diversification benefits may be shared between the parent and subsidiaries.

188. Where a supervisory approach based on more of a consolidated focus is used, diversification effects would in general be recognised at the level of the consolidated group – in the situation of Figure 2, considering the businesses of the parent and the subsidiary as if they were carried on by a single entity. In normal circumstances, this is similar to the situation described under a legal entity focus, where the subsidiaries reinsure their businesses with their parent. However, this approach provides no information on the allocation of those diversification benefits between the subsidiary and the parent in this example.

189. In the particular case where the group spans different jurisdictions, this may introduce restrictions on the fungibility of capital and transferability of assets between the group members. Even though the diversification benefits exist within the group, the extent to which they are recognised in practice should reflect the fungibility of that capital in practice. For example, capital in the parent may not be sufficiently readily available to the subsidiary in circumstances of financial difficulty to enable the subsidiary to meet its obligations to policyholders as they fall due. An adjustment to the capital resources or the capital requirement (through a reduction in the diversification benefit or otherwise) may therefore be needed to provide adequate policyholder protection. This will depend on how the capital resources are distributed between the parent and its subsidiaries.

190. In practice, further analysis to complement, or adjustment to modify, the determination of capital requirements and/or resources under a pure consolidation approach

will be required to reflect the relationships between the entities within the group and the fungibility of capital in practice.

## 8 Conclusion

191. This issues paper highlights that there are a number of important issues and challenges to be considered in developing a regime of group-wide supervision, and that there are various approaches to group-wide supervision being currently applied in practice.

192. The exploration undertaken in this paper is preliminary and it is recognised that there is a clear need for further analysis and consideration within the IAIS in taking forward the agenda on group-wide solvency assessment and supervision.

# ANNEXES

## Annex 1: Glossary

*This glossary reflects terminology used in this Issues Paper. Where appropriate, definitions from the current IAIS Glossary of Insurance Terminology (Feb 2007) have been used; otherwise definitions have been proposed.*

*It is recognised that this glossary is neither comprehensive nor definitive, at this preliminary stage of the work on group-wide supervision. As work advances within the IAIS on this subject, and supervisory papers are developed, a comprehensive review of the relevant terminology and definitions in the IAIS Glossary should be undertaken. Regard should also be had for appropriate coordination with the joint IAIS/IAA/CEA and Groupe Consultatif project to establish a Common Glossary.*

**Financial conglomerate:** Any group of companies under common control whose exclusive or predominant activities consist of providing significant services in at least two different financial sectors (banking, securities, insurance).

**Insurer:** A licensed legal entity which underwrites (direct) insurance or reinsurance.

**Subsidiary:** A legal entity that is controlled by another entity.

**Insurance group:** A group structure which contains two or more insurers. The structure of international insurance groups may derive from an ultimate holding company which is not an insurer. Such a holding company can be an industrial or commercial company, another financial institution (for example a bank), or a company the majority of whose assets consist of shares in insurance companies (and/or other regulated financial institutions).

**Solo supervision:** The supervision of a licensed financial entity, by the supervisor in the jurisdiction where the licensed financial entity is incorporated, whereby the supervised entity is treated as a "stand-alone" entity. The solvency requirements are applied on a stand-alone basis. However, this does not preclude consideration by the supervisor of group aspects.

Under solo supervision there can be no automatic assumption that the entity in question will receive additional financial support from a parent institution, or that it - in turn - will have moral or commercial obligations to support other insurers in which it has invested beyond the extent of those investments, or other contractual obligations (eg. guarantees). The concept of solo supervision is not in any way intended to exclude the possibility of supervision of a branch by a host jurisdiction.

**Consolidated supervision:** A supervisory group approach that focuses on the total of individual entities (licensed or not) of a group, consolidated at the level of the top insurance or holding company. In this case the solvency requirements are applied to the overall net financial position of the group as a whole.

**Group-wide supervision:** A supervisory approach to a financial group which considers the group structure, the constituent licensed entities and all the interrelationships within that financial group. Solo plus supervision on the one hand and consolidated supervision on the

other hand may be viewed as the most well known existing approaches within this general definition.

**Approaches to group-wide solvency assessment with a legal entity focus:** These approach consider a group as a set of interdependent legal entities, and not one single entity. They determine capital resources and capital requirements for each legal entity in the group simultaneously while measuring group impacts within the capital resources and capital requirements for each legal entity. Approaches with a legal entity focus give greatest weight to the legal structure of the entities within a group (rather than the management/operational structure of the group), and recognise the ultimate legal entitlements of policyholders and shareholders as defined by the legal entity structures within the group.

**Approaches to group-wide solvency assessment with a consolidated focus[14]:** These approaches give greatest weight to the operational and management structure (rather than the legal structure) of the group and the extent to which the group operates on the basis of a single economic entity. They reflect the view of management and of shareholders, and align supervision with the management/operation of the group. Approaches with a consolidated focus have regard for the synergies between the entities within the group, the group's risk and capital management structure and the fungibility of capital and transferability of assets among entities within the group.

**Aggregation Methods:** Approaches to the assessment of group capital adequacy which determine the excess or deficits of capital existing at the level of each entity in the group and then aggregate those amounts to determine the surplus or deficit at a group level.

**Consolidation Methods:** Approaches to the assessment of group capital adequacy which are based on the consolidated balance sheet of the group and calculate a capital requirement at group level, treating the group as a single entity, and assess whether this requirement is sufficiently covered by capital resources also determined at the group level.

**Reputational Risk:** The risk that sentiment regarding the reputation of an individual insurer is affected by the sentiment towards the wider group or other entities within the group. For insurance entities, reputational risk is often linked with policyholder expectations regarding the payment of claims and/or the delivery of investment products and services and whether the insurer is meeting its prudential and consumer protection obligations relating to those services.

**Contagion Risk:** The risk that an individual entity will be adversely affected by the actions of another entity within the group due to the relationships, direct or indirect, that exist between them. Where financial difficulties in one or more of the entities may adversely impact other financial institutions, beyond the scope of the group contagion risk, this may

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[14] A range of approaches to group-wide supervision are used in practice, many of which can be considered intermediate approaches with characteristics of both a legal entity and consolidated focus, and with greater or less emphasis on the relative roles of solo and/or group-wide supervisors. For example, one such intermediate approach to group-wide supervision would be a supplementary approach (refer to the description of the EU Solvency I approach in annex 4). Such an approach considers the legal and economic structure of a group of the greatest importance. Solo supervision remains the core of insurance supervision. However, the effects of being part of a group are taken into account. Hence, in order to get a broader and clearer image of the relationships and operations of the group, group-wide supervision is also carried out as a supplement to the solo supervision.

give rise to systemic risks, which exists where an adverse event affects the financial system as a whole, jeopardising the stability of the financial market.

**Fungibility of Capital:** often refers to capital of the group being readily available, when required, to meet the losses of the group, regardless of the entity within which those losses arise.

**Transferability of assets:** often refers to the actual ability of one entity to transfer assets representing the capital resources to another entity at the time when the financial support is needed.

**Financial support:** is used to indicate the movement of real assets between entities within a group, as opposed to group support which is used to indicate a commitment or guarantee to provide financial support in certain circumstances.

## Annex 2: Broad comparison of existing solo regulatory capital requirements in selected developed jurisdictions

## I. Overview

The primary aim of this annex is to illustrate the diversity of existing regulatory capital requirements for solo insurance entities. Such a comparison illustrates some of the differences facing insurance groups operating across multiple jurisdictions. The comparison is not intended to suggest whether a particular regime has advantages over others but just to show the differences that currently exist. It is emphasised that this comparison is limited to the quantitative aspects of regulatory capital requirements and excludes any qualitative aspects (e.g. risk management requirements or risk-based supervisory review) which may form part of a solvency regime. Further, regulatory capital requirements need to be considered together with technical provisions when assessing solvency and capital adequacy regimes. The approach to technical provisions currently differs between regimes also. The comparison is made for direct insurers; requirements for pure reinsurers may differ.

The comparison in this annex is preliminary, and it is recognised that further analysis would be necessary if this information was to be used in the further development of mechanisms to facilitate group-wide supervision, such as mechanisms for equivalence assessment, mutual recognition or establishment of group capital requirements.

## II. Prescribed Capital Requirement (PCR)

***Only a few jurisdictions allow more tailored approaches***

All jurisdictions adopt some form of standardised approach albeit with varying degrees of standardisation in that some discretion is allowed for within these regimes. Some regimes recognise institution-specific circumstances within the standardised approach (for example the “Mortgage Experience Adjustment” and property/casualty underwriting risk components in the US Risk Based Capital (RBC) which adjust the capital requirement based on the company’s experience relative to the industry’s). The Swiss Solvency Test standardised approach is different from the other jurisdictions in that it is based on a prescribed standardised model rather than a standardised formula or risk factors.

Where the use of partial or full internal models is allowed for regulatory capital purposes, separate requirements on the validation of the internal models apply. Generally, partial internal models cover any risks not adequately captured under the standardised approach but one jurisdiction specifies the actual risk for which partial internal models may be adopted. In another jurisdiction, partial internal models are applied to business segments and not risks. The modelling criteria in these jurisdictions are consistent with the target criteria specified under the standardised approach.

***Table 1: Approaches to determining regulatory capital requirements***

| | Australia | Canada | Japan | EU Solvency I[15] | EU Solvency II[16] | Switzerland | US (NAIC) |
|---|---|---|---|---|---|---|---|
| **Standardised approach** | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| **Partial internal models** | ✓ (Non-life insurers only) | ✓ (Life insurers only) | ✓ (Life: Minimum guarantee risk for variable annuity; Non-life: flood) | | ✓ | ✓ | ✓ (Life insurers only) |
| **Full internal models** | ✓ (Non-life insurers only) | | | | ✓ | ✓ | |

***Methodology and target criteria to determine PCR are markedly varied***

All regimes have capital requirements which meet the definition of the PCR albeit in different forms and terminology. Canada defines the PCR in the form of a ratio of capital available to capital required. In Australia, the PCR is agreed with each non-life insurer in terms of a multiple of the MCR. The target criteria for the overall PCR is not usually specified explicitly.

The most common methodology, especially for asset risks, is the factor based approach. However, for certain types of risks such as interest rate or asset-liability mismatch risk, a cash flow-based approach (such as scenario testing or revaluation of future cash flows) is more common.

The different methodologies adopted do not allow easy quantitative comparison. For example, the capital required for life insurance liabilities in Australia requires a full revaluation of actuarial reserves based on prescribed adverse scenarios whereas in Canada, factors are applied on pre-defined measures of exposure.

[15] "Solvency I" refers to the minimum requirements currently applied (October 2008) by EU Directives to member states of the European Union. Approaches of individual member states vary and some requirements are substantially stronger than the Directive minimum. The Solvency II regime currently being developed is a more risk-based regime harmonised across European member states.

[16] With respect to Solvency II, the tables in Annex II were populated based on the European Commission's 2008 Amended Proposal for a Directive. But as the Solvency II Framework Directive will then have to be supplemented with implementing measures at a second stage, a number of technical details of the Solvency II regime are still being developed. In particular, a Fourth Quantitative Impact Study (QIS4) was run in April 2008 in order to test a number of possible implementation alternatives, based on the Commission's Amended Proposal. For illustration purposes, the tables in Annex II also include (into brackets) technical information about the approaches tested in QIS4, so as to allow for a tentative comparison between Solvency II and the other regimes; this information remains however purely indicative and does not prejudge the final outcome of the Solvency II reform.

*Table 2: Prescribed capital requirement (Standardised approach)*

| | Australia | Canada | Japan | EU Solvency I | EU Solvency II | Switzerland | US (NAIC) |
|---|---|---|---|---|---|---|---|
| **Defined PCR** | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| **Terminology** | Capital adequacy requirement (life), Multiple of minimum capital requirement (non-life) | Regulatory target capital ratio | Solvency margin ratio | Required solvency margin | Solvency Capital Requirement (SCR) | Target capital | Company action level risk-based capital |
| **Methodology** | | | | | | | |
| **Liability risks** | | | | | | | |
| **Revaluation on more adverse scenarios** | ✓(life) | ✓ | ✓(under review for solvency purpose) | | | | |
| **Factor based** | ✓(non-life) | ✓ | ✓ | ✓ | ✓ | | ✓ |
| **Stochastic model** | | ✓ | ✓(variable annuity) | | ✓ | ✓ | |
| **Scenario testing** | | | | | ✓ | ✓ | |
| **Asset risks** | | | | | | | |
| **Revaluation on more adverse scenarios** | ✓ (life) | | | | | | |
| **Factor based** | ✓ (non-life) | ✓ | ✓ | ✓ (life) | ✓ (e.g. simplifications) | ✓ (Basel II is used for credit risk) | ✓ |
| **Scenario testing** | ✓ (life) | | | | ✓ | ✓ | ✓ |
| **Diversification recognition** | ✓ (life – assets only) (non-life – liabilities only) | No | ✓ | No | ✓ | ✓ | ✓ |
| **Target Criteria** | | | | | | | |
| **Confidence level** | 99.75% (life), >99.5% (for non-life, where 99.5% is for MCR) | Varies depending upon the time horizon | Varies (for e.g. life:99%; assets:90%; Non-life, earthquake: 99.5%, flood: 98.6%) | Unspecified | 99.5% | 99% | Varies (for e.g. life insurance 95%; bonds 92% to 96%) |
| **Time horizon** | 1 year | Varies | Varies (mostly 1 year) | Unspecified | 1 year | 1 year | Varies |
| **Risk measure** | Effectively VaR | TailVar | VaR | Unspecified | VaR | TailVar | Unspecified |

## III. Minimum Capital Requirement (MCR)

***Methodology to determine MCR largely similar with that for the standardised PCR***

MCR is usually set in the same way as the standardised approach used for the PCR. The capital requirement for non-life insurers in Australia is driven by the determination of the MCR, the multiple of which then determines the PCR. Australia also allows the use of internal models to determine MCR for non-life insurers. As the MCR is computed using different methodologies in the selected jurisdictions, it is not possible to compare the tolerance level at which the strongest supervisory intervention (e.g. winding-up) is triggered in different jurisdictions.

***Table 3: Minimum Capital Requirement (MCR)***

| | Australia | Canada | Japan | EU Solvency I | EU Solvency II | Switzerland | US (NAIC) |
|---|---|---|---|---|---|---|---|
| **Defined** | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| **Terminology** | Solvency requirement (life), MCR (non-life) | Minimum Continuing Capital and Surplus Ratio (life), Minimum capital test (non-life) | Category C | Guarantee fund | MCR | MCR - Schwelle 3 | Mandatory Control Level |
| **Methodology to compute capital requirement** | Essentially same as for PCR (for non-life, MCR is the main driver) | Same as for PCR | Same as for PCR | 1/3 of required solvency margin | Standard formula | 33% of PCR | 35% of PCR |
| **Target Criteria** | 99.5% | 100% (non-life), 120% (life) | Unspecified | Unspecified | 80% - 90% | 1 year; 33% of TailVar at 99% level | Unspecified |

The minimum bound MCR are all in the form of absolute monetary amounts. Most jurisdictions distinguish between the ownership structures in setting the different levels of minimum bound MCR.

***Table 4: Minimum bound MCR***

| | Australia | Canada | Japan | EU Solvency I | EU Solvency II | Switzerland | US (NAIC) |
|---|---|---|---|---|---|---|---|
| **Life** | AUD10 mil (non friendly societies); AUD0 mil (friendly societies) | CND5 mil | JPY1bil | EUR3.2 mil (proprietary); EUR2.4 mil (mutual) | Under discussion | CHF3 mil to CHF20 mil depending on business classes | Varies by state, line of business and company type (stock/mutual). Life : Median amount USD1 mil; Non-life : Median amount USD1mil liabilities, USD750,000 property |
| **Non-life** | AUD2 mil (captives); AUD5 mil (non-captives) | CND5 mil | JPY1bil | EUR 3.2 mil (proprietary); EUR 2.4 mil (mutual) | Under discussion | | |

## IV. Elements of the PCR

***Varying risk factors reflect different target criteria and local market conditions***

The prescribed risk factors for assets vary significantly possibly due to calibration to different target criteria. Most jurisdictions which allow diversification credits also impose additional capital requirements for asset concentration. The recognition of diversification benefits takes different form (for example in Australia, life insurers adjust the yield assumption whereas the computed capital required is adjusted in the US). Apart from Japan and Switzerland, the capital requirements for asset risks in the other jurisdictions differ slightly between life and non-life insurers. Most jurisdictions impose explicit capital requirements on off-balance sheet items (e.g. contingent assets and liabilities).

***Table 5: Capital requirements for selected asset classes***
***(% shown are applied on asset values unless otherwise indicated)***

| | Australia | Canada | Japan | EU Solvency I | EU Solvency II | Switzerland | US (NAIC) |
|---|---|---|---|---|---|---|---|
| **A-rated corporate bonds** | 4% (non-life) | 2% (non-life) and 1% + provisions in actuarial liabilities (life) | 1% | One undertaking limited to 5% of technical provisions | Not comparable (stress scenario likely to be used) | Not comparable (stochastic model is used) | Class 1 Bonds (A to AAA) : 0.3% |
| **Domestic listed shares** | 16% (non-life) | 15% | 10% | One undertaking limited to 5% of technical provisions | Not comparable (stress scenario likely to be used) | Not comparable (stochastic model is used) | 30% (life), 15% (non-life) |
| **Real estate investment** | 20% (non-life) | 15% (non-life) 7% (life) | 5% | One piece of real estate limited to 10% of technical provisions | Not comparable (stress scenario likely to be used) | Not comparable. (stochastic model is used) | 15% (life), 10% (non-life) for unforeclosed properties |
| **Reinsurance receivables from regulated A-rated reinsurer** | 4% (non-life) | 0% (life), 0.5% (non-life) | 1% | Reduction for reinsurance limited to 15-50% of gross required solvency margin depending on type of risk but not on reinsurer rating | Not comparable (stress scenario likely to be used) | Not specified | 0.8% (life), 10% (non-life) |
| **Other aspects** | | | | | | | |
| **Explicit treatment of off-balance sheet items** | ✓ | ✓ | No | No | ✓ | ✓ | ✓ |
| **Diversification recognition** | ✓ (life only) | No | ✓ | No | ✓ | ✓ | ✓ |

For capital requirement for liability risks, the non-life insurance outstanding claims liability is used as basis of comparison in this analysis as it is the most comparable item across the selected jurisdictions. The risk factors for outstanding claims liability vary

between the different classes of business due to calibration to the jurisdiction specific experience.

*Table 6: Capital requirements for outstanding claims liabilities of selected classes of non-life insurance (direct business only)*

| | Australia | Canada | Japan | EU Solvency I | EU Solvency II | Switzerland | US (NAIC) |
|---|---|---|---|---|---|---|---|
| **Liability** | 15% | 15% | 34% | Not comparable – different measure of exposure[17] | Not comparable – different methodology | Not comparable – different methodology | Not comparable – different methodology |
| **Motor** | 9% | 10% | 14% | | | | |
| **"Others"** | 11% | 15% | 34% | | | | |
| **Number of specified business lines** | 14 (Grouped in 3 categories) | 7 | 6 | 17 | Under discussion (15 in QIS4) | | 18 |
| **Measure of exposure** | Net outstanding claims liabilities | Net outstanding claims liabilities | Net incurred claims | Claims incurred, premiums written/earned | | | Expense and loss ratio |
| **Diversification recognition** | ✓ (reflected in the liabilities valuation) | No | ✓ | ✓[18] | ✓ | No | ✓ |

***The capital requirements in some regimes are more granular than others***

For this exercise, the level of granularity for capital requirements for asset risks is measured by the number of sub-categories for each asset classes.

*Table 7: Illustration of granularity of capital requirements for asset risks*

| | Australia | Canada | Japan | EU Solvency I | EU Solvency II | Switzerland | US (NAIC) |
|---|---|---|---|---|---|---|---|
| **Corporate bonds** | | | | | | | |
| **Number of credit rating categories** | 7 (life) 5 (non-life) | 7 (life) 3 (non-life) | 4 | 0 | Under discussion (8 in QIS4) | 5 | 7 |
| **Mortgage** | | | | | | | |
| **Type of property (commercial/ residential)** | No differentiation | ✓ | No differentiation | No differentiation | (No differentiation under the standardised approach tested in QIS4) | ✓ (has to be part of the stochastic modelling if relevant) | ✓ (life) |
| **Type of collateral** | | ✓ | | | | | ✓ (life) |
| **Financing** | | No | | | | | ✓ (life) |

[17] Broadly, capital requirement of the greater of
- 16-18% of the greater of premiums written and earned over last financial year;
- 23-26% of average claims paid over reference period of 3 to 7 years;
- and previous capital requirement reduced in line with provisions in force.

Adjustments are made for certain classes of business and for reinsurance (subject to limits)

[18] Capital requirement based on aggregate data.

| | Australia | Canada | Japan | EU Solvency I | EU Solvency II | Switzerland | US (NAIC) |
|---|---|---|---|---|---|---|---|
| **status (good standing/ overdue/ foreclosed)** | | differentiation | | | | | |
| **Real estate** | | | | | | | |
| **Type of property (commercial/ residential)** | No differentiation | No differentiation | No differentiation | No differentiation | (No differentiation under the standardised approach tested in QIS4) | ✓ | ✓ |
| **Purpose (owner occupied, investment)** | | ✓ | | | | No differentiation | ✓ |
| **Financing status** | | ✓ (life) | | | | ✓ | |

The differing levels of granularity of the capital requirements for liability risks are largely attributed to the different types and risk profiles of products on offer in the selected jurisdictions.

***Table 8: Illustration of granularity of capital requirements for liability risks***

| | Australia | Canada | Japan | EU Solvency I | EU Solvency II | Switzerland | US (NAIC) |
|---|---|---|---|---|---|---|---|
| **By product types/class** | ✓ (For non-life this is explicit. For life it is implicit in different assumptions adopted by actuary for different product groups.) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| **By duration of policies** | ✓ (Implicit in prospective liability calculation) | ✓ (life) | | ✓ | ✓ (Implicit in the cash flow projection) | ✓ (model considers cash flows) | |
| **By risk types** | ✓ | ✓ (life) | ✓ (life) | ✓ (life) | ✓ | ✓ | |
| **By size of business** | ✓ (Implicit in prospective liability calculation) | | | ✓ (non-life) | ✓ (Implicit in the cash flow projection) | | ✓ |
| **By age of policyholders** | ✓ (Implicit in prospective liability calculation) | | | | ✓ (Implicit in the cash flow projection) | | |

***Similarities in measure of exposure for assets risks but not liability risks***

The majority of jurisdictions use balance sheet asset values as measure of exposure for asset risks but the preferred measures varied significantly for liability risks. The balance sheet asset values in certain jurisdictions such as Switzerland are based on market-consistent values. Jurisdictions with more granular requirements tend to have a wider range of measure of exposures. Given the model-based approach of the Swiss framework, the overall measure for insurance liabilities is the modelled stochastic annual loss within which some of the measures as listed in Table 9 below are used.

*Table 9 : Measure of exposure*

| | Australia | Canada | Japan | EU Solvency I | EU Solvency II | Switzerland | US (NAIC) |
|---|---|---|---|---|---|---|---|
| **Assets** | | | | | | | |
| **Balance sheet value** | ✓ | ✓ | ✓ | ✓ | ✓ (in QIS4) | ✓ | ✓ |
| **Life Insurance Liabilities** | | | | | | | |
| **Net earned premiums** | | ✓ | | | | | ✓ |
| **Net written premiums** | | | | | | | |
| **Reserves/Technical provision** | ✓ | ✓ | ✓ | ✓ | ✓(in QIS4) | ✓ | ✓ |
| **Amount at risk** | | ✓ | ✓ | ✓ | | | ✓ |
| **Expected claims** | | ✓ | | | | ✓ | |
| **Claims ratio** | | | | | | | ✓ |
| **Paid claims** | | | | | | | ✓ |
| **Net claims incurred** | | | | | | | ✓ |
| **Reinsurance recoverables** | | | | | ✓(in QIS4) | | ✓ |
| **Reinsurance Ratio** | | | | ✓ | | | |
| **Administrative expenses & Fees** | | | | | | | ✓ |
| **Non-life Insurance Liabilities** | | | | | | | |
| **Premium liability** | ✓ | ✓ | | | | | |
| **Claims liability** | ✓ | ✓ | | ✓ | ✓(in QIS4) | ✓ | |
| **Gross claims incurred** | | | | ✓ | | | |
| **Gross written premium** | | | | ✓ | | | |
| **Claims ratio** | | | | | (Net loss ratio in QIS4) | | ✓ |
| **Gross earned premium** | | | | ✓ | | | ✓ |
| **Loss/expense reserves** | | | | | ✓(in QIS4) | ✓ | ✓ |
| **Net written premium** | | | ✓ | | | | ✓ |
| **Net earned premium** | | | | | ✓ (in QIS4) | | |
| **Net incurred claims** | | | ✓ | | | | |
| **Reinsurance Ratio** | | | | ✓ | | | |

## Annex 3: Examples of approaches with a legal entity focus

*This annex supplements section 6 of the Issues paper which describes in generic terms the features of group-wide solvency assessment undertaken with a legal entity focus.*

*Two examples of an approach with a legal entity focus are presented:*

1. *The US/NAIC Legal Entity approach*
2. *The Swiss Group Structure Model approach*

### 3.1 The US NAIC Legal Entity Approach

1. The purpose of this annex is to document some of the aspects of the United States legal entity approach to solvency regulation so that others can better understand how insurance regulators in the United States consider the impact that other members of the holding company can have on the insurer. However, before understanding how those specific issues are dealt with in the United States system, it's important to understand how companies are regulated for solvency as a whole in the United States.

*Purpose of Solvency Regulation in the United States*

2. The primary responsibility of each state insurance department is to regulate insurance companies in accordance with state laws with an emphasis on solvency for the protection of policyholders. The ultimate objective of solvency regulation in the United States is to ensure that policyholder, contract holder and other legal obligations are met when they come due and that companies maintain capital and surplus at all times and in such forms as required by statute to provide an adequate margin of safety.

*Financial Accounting and Reporting*

3. The cornerstone of solvency measurement is financial reporting. Consequently, United States insurance regulators require all insurers to file quarterly financial statements, as well as a detailed annual statement. The information is required to be filed in both PDF format, as well as electronic format, with the National Association of Insurance Commissioners (NAIC). The NAIC in turn provides the same information to all states, and uses the electronic information to present the data to the states in numerous ways, including ratios, formats that allow vertical and horizontal analysis, and other avenues that allow the regulator to quickly compare the company with peers and established thresholds. The format used in the financial statement is consistent for all companies, due in part to its prescribed rules of the NAIC *Annual Statement Blank*, but also because of the requirement that that all insurers file their financial statements using the NAIC *Accounting Practices and Procedures* (AP&P) *Manual*, a three volume comprehensive set of accounting standards, and the NAIC *Annual Statement Instructions*. The AP&P Manual is supplemented with other requirements related to the specific valuation requirements, including those related to investments as detailed in the *Purposes and Procedures Manual of the Securities Valuation Office* of the NAIC and those related to reserving for life and annuity products.

*Capital Requirements*

4. United States insurance regulators have historically required insurers to carry minimum amounts of capital and surplus that vary based upon the type of risks they insure. Since the early 1990s, United States insurance regulators have required higher levels of minimum capital for insurers that vary based on the amount of asset, underwriting, interest rate, market, and business risks they possess. This required capital is calculated by the insurer using a formula developed and maintained by the NAIC known as risk-based capital (RBC). A large portion of the formula utilizes information from the over 100-page Annual Statement, which results in reliable and consistent data being used for calculating the minimum amount of capital appropriate for an insurance company to support its overall business operations. United States insurance regulators have laws which, in turn, allow them to take various actions against an insurer depending on an insurer's RBC level. These RBC laws include various levels of regulatory intervention wherein specific action is required by the insurer and the regulator. These include 1) the Company Action Level, wherein the company is required to submit to the Commissioner an RBC plan which details the actions the Company will take to eliminate the action level event; 2) the Regulatory Action Level, which requires the company to submit an RBC plan and the Commissioner to perform any analysis or examination of the company that he deems necessary and to determine if there are any required additional actions to be taken by the Company; 3) the Authorized Control Level, which requires the same actions taken at the Regulatory Action Level, and if deemed appropriate, to take the company under his control; and, finally, 4) the Mandatory Control Level, wherein the Commissioner is required to put the company under regulatory control.

*Financial Regulation*

5. Regulators have means other than Risk-Based Capital to make the same determination, and have had so for years. All states have laws that allow the Commissioner to take action on any insurer that is deemed to be in hazardous financial condition. This statute provides the Commissioner the authority to make that determination through various means. This includes conducting an on-site examination of the insurer at any time, either on a limited scope basis (such as a review of reserves) or a full scope basis. It should be noted that every state conducts a full scope examination on every domestic company at least once every five years. The core of insurance regulation in the United States is centred on the examination process and the analysis process. All states utilize the same process for conducting their examinations, as set forth in the NAIC *Financial Condition Examiners Handbook*, and also use processes that are similar to what is outlined within the NAIC *Financial Analysis Handbook*.

6. The NAIC *Financial Examiners Handbook* has always utilized a risk-focused approach to guide the examiner through the necessary steps to identify the risks of the insurer. This handbook was recently revised to enhance the ability of the regulator to provide a more comprehensive risk-focused approach, similar to how CPA firms and auditing standards have become even more risk focused. Some of the more significant changes to the Handbook include requirements for the examiner to consider other than financial risks. This includes but is not limited to prospective enterprise business risks, corporate governance and risk management.

7. The NAIC *Financial Analysis Handbook* is also risk-focused; and recent changes have been made to this publication to highlight the importance of constant and ongoing communication between the desk analyst and the insurer. The NAIC *Financial Analysis Handbook* utilizes a stair-step approach that forces the analyst to analyze and gather more information as the risk profile of the company increases. The *Financial Analysis Handbook* is

designed to increase the level of communication between the state and the insurer whenever risks are heightened or unmitigated.

*Annual Audit, Internal Control & Related Requirements*

8. Insurers have been required for years to submit to the Commissioner an annual audit and annual report on their internal control structure from an independent certified public accountant. Following various non-insurance corporate scandals that occurred in the early 2000s, the NAIC added best aspects of the U.S.'s Sarbanes-Oxley Act into these audit and internal control reports. This includes specific requirements as it relates to the independence of the auditor, most notably a list of prohibited services. It also includes requirements as it relates to the membership of the board of directors, and other related governance items. Finally, and most importantly, it includes a requirement for insurers with greater than $500 million in assets to file a report with the Commissioner annually regarding its assessment of its internal controls over financial reporting.

*Additional Solvency Protection*

9. Regulators have other requirements that help protect the solvency of insurers. This includes a yearly requirement for a qualified actuary to opine on the reserves of the insurer. All states also have statutes and regulations that are designed to limit an insurer's investment risk. United States insurance regulators believe such rules have helped to limit the adverse impact the current financial market conditions have had on United States insurers. All states have statutes and regulations that limit the net amount of risk to be retained by a property and liability company for an individual insurance policy risk to 10% of their capital and surplus.

*Final Consumer Protection*

10. Despite the above protections, insolvencies can and do occur. In such cases, US policyholders are protected through a regulatory framework in all states known as the guaranty fund system. This system is designed to limit the amount of loss to a policyholder under such an event. The guaranty funds are available on most products, but are designed for the individual consumer, and are therefore not available on commercial products such as financial guaranty or mortgage guaranty, which United States regulators view as commercial investment risk.

*Holding Company Analysis*

11. Consistent with state law and the related regulatory structure, examination and analysis procedures are more focused on the legal entity level rather than on the overall holding company system. Notwithstanding the structural need to focus on the legal entity level, state regulators have for years recognized that individual company analysis requires a more broad understanding of the overall insurance group. Consequently, all states require that the insurer submit an annual financial statement of the ultimate holding company. The *Financial Analysis Handbook* emphasizes the importance of gaining a thorough understanding of the organizational structure in order to properly analyze how each subsidiary in the holding company operates. The *Financial Analysis Handbook* requires the analyst to review those financial statements, or the most recent filing of the holding company (e.g. SEC 10-K and 10-Q filings).

*Understanding the Lead State Role*

12. The Financial Analysis Handbook discusses the concept of the lead state, as it is used to coordinate financial monitoring of the holding company and its structure. Although all states obtain a basic understanding of the holding company structure, the financial condition of the holding company group, and related matters; the lead state concept is used to determine which state will take the lead in monitoring the financial condition of the group, and initiate communication with the senior management and board with regard to such matters. Typically, the lead state is the state where the parent company is domiciled or, if there is no insurance parent, the state where the largest by direct written premium volume insurance subsidiary is domiciled. However, as noted below, for some groups, there may be multiple lead states who work together to perform such duties.

13. Factors that may be considered when determining the lead state:

- State with the largest number of domestic insurance companies in the group.
- State with large or largest premium volume or exposure.
- Domiciliary state of top-tiered insurance company in an insurance holding company system.
- Physical location of the main corporate offices or largest operational offices of the group.
- Expertise in the area of concern and expertise of staff in like situations.
- State whose regulatory requirements have driven the design of the organization's infrastructure.

14. Ultimately the determination for who should be the lead state(s) rests with the domestic regulators of the companies in that group. However, it's usually fairly evident, and the regulators have made the determination for the lead state for all groups. The NAIC maintains this list on its regulator-only Web Site so that any state will know who to contact with regard to lead state type of issues. The concept of a lead state is not intended to relinquish the authority of any state, increase any state's statutory authority, nor put any state at any disadvantage. It is intended to facilitate efficiencies when one or more state(s) coordinate the regulatory processes of all states involved.

15. The role of the lead state encompasses many responsibilities, which may vary depending upon the situation creating the need for regulatory coordination of activities of the regulators involved. However, of utmost importance is maintaining confidentiality of all information, which includes implementing confidentiality arrangements with other states and regulators. In some cases, when multiple states are involved in monitoring the activities or approving the transactions of a company or group of companies, multiple states may coordinate regulatory efforts. These coordinated efforts have increased over the last few years as the insurance industry has consolidated and as insurance holding companies with insurers domiciled in more than one state have increased.

16. These coordinated activities may include:

- The establishment of procedures to communicate information regarding troubled insurers with other state insurance departments.
- The participation on joint examinations of insurers.
- Consensus assignment of specific regulatory tasks to different state insurance departments in order to achieve efficiency and effectiveness in regulatory efforts and to share personnel resources and expertise.

- The establishment of a task force consisting of personnel from various state insurance departments to carry out coordinated activities.

*State Regulators Authority Under the Holding Company System Regulatory Act*

17. US insurance regulators have extensive requirements as it relates to all related-party transactions. These requirements are embedded within the NAIC's Insurance Holding Company System Regulatory Act. This act includes requirements related to:

- acquisition of control of an insurer;
- disclosures regarding the holding company structure and any new agreements with affiliates; and
- prior notice of transactions.

Under this Act, US insurance regulators can examine non-insurers with issues related to the insurance products or operations. US insurance regulators also have the ability to regulate any contract between the insurer and related parties. US insurance regulators also have the ability to take action on a company when any affiliate is insolvent, threatened with insolvency or delinquent in payment of its monetary or other obligations.

## 3.2 The Swiss Group Structure Model - Switzerland

*Introduction*

1. The group structure model aims to determine a PCR and capital resources for each legal entity.

- The group-wide solvency assessment is not expressed as a single number. It is expressed a set of PCRs and a corresponding set of capital resources: e.g. a PCR and capital resource per legal entity. No over-all capital requirement (neither PCR nor MCR) or capital resources are calculated for the group.
- As far as MCR is concerned, strongest regulatory intervention is triggered in those legal entities where the individual MCR is breached.

2. Group impacts are measured within the capital resources and requirements for each legal entity. In addition to pure solo assessment, the group structure model models all legal entities simultaneously and together with all their mutual interdependencies such as ownership and capital and risk transfer instruments (CRTI). (Reinsurance contracts and guarantees are collectively referred to as risk transfer instruments.)

- This means that the PCR of a single legal entity is determined net of internal reinsurance agreements and financial guarantees. The PCR of a provider of a reinsurance cover or a guarantee increases while the PCR of a receiving legal entity decreases.
- Intra-group financial support, parental guarantees or intra-group reinsurance are reflected in the capital resources *and* requirements of the individual entities when they are effective (e.g. legally binding and enforceable) and in a manner consistent with external effective financial supports and guarantees. The capital resources *and* requirements reflect the positive or negative impact on that insurer consistent with any other economically positive impact allowed for under the solvency regime.

3. All relevant financial positions and instruments are taken into account in the group structure model (that is, it is a total balance sheet approach).

4. In addition, parent company PCR, MCR and capital resources reflect the effects of holding one or more subsidiaries.

- Owning a subsidiary is considered as holding a risky position with a given current price and an uncertain future value, thus contributing to both capital resources and capital requirements of the parent.
- The supreme legal entity indirectly is the owner of all positions anywhere in the group. Its PCR and capital resources mirror all risks in the group.

5. The group structure model approach is potentially complex to perform (e.g. it has to account for complex internal reinsurance structures, web of guarantees between group companies, intra-group participations and capital/risk instruments). However, it provides valuable insight (e.g. group contagion risk, and dependencies between group members) into group internal mechanisms, which would otherwise not be available, and a realistic picture of the group's behaviour especially in case of financial distress.

- For practical purposes simplifications of the model are likely to be necessary (e.g. grouping subsidiaries to avoid distinct modelling of non material entities).

*Assumptions*

6. Each group member – legal entity - is assumed to only pay claims as required based on a formal and legally binding contract within the framework of CRTI. As a consequence its regulatory capital requirement should not take into account risk for which the entity has no obligation.

7. A group‘s promise to support a subsidiary will only be taken into account in the subsidiary‘s individual solvency assessment if the promise relies on a formal and legally binding CRTI.

- A participation from company A in company B constitutes an asset for A. Acquiring such an asset means for A to swap another asset for the participation. This asset swap usually leads to a change in A’s PCR since the PCR is closely related to A’s asset structure. Because of the limited liability of shareholders (see below) the capital charge for a participation should never be larger than the value of the participation itself.
- The treatment of loans granted by one company to another is similar. Participations in other companies and loans to other companies are collectively referred to as capital transfer instruments.
- The value of a subsidiary for the parent company could be defined as the economic net asset value of the subsidiary (independent of regulatory or accounting conventions the subsidiary is domiciled in).
- When dealing with guarantees and other similar instruments great care must be taken when assessing the enforceability of the instrument and the treatment of claims in a winding up situation (e.g. is the claim pari passu with policyholders’ claims?).
- The limited liability of shareholders means that shareholders do not have to provide funds in excess of the equity of the company (except possibly in exceptional circumstances not covered here). This fact is sometimes described by stating that shareholders have a put option on the company with a strike price equal to 0 monetary units. The treatment of this limited liability of shareholders varies depending on the type of group model.

8. When economies of scale or an ability to tap into a larger workforce to gain additional skills and resources impact expense levels of individual members these are be reflected in the projection of individual group member’s projected expense levels, thus allowing for group synergy effects in a manner consistent with any other impact on expected expense levels allowed for under the solvency regime.

*Main Features*

9. The group structure model takes into account any restriction on fungibility of capital.

- The phrase “restricted fungibility of capital” refers to the fact that it may not be possible to transfer assets between different companies, for instance, due to an intervention of the supervisory authority in a situation of financial distress.
- However, a parent company is (assumed to be) able to unlock economic value of a subsidiary by selling it for its economic value. Even if capital cannot be taken out of a well capitalised legal entity a third party will pay a market fair price for this

entity. The possibility of swapping a participation into money means for the parent that this type of restrictions on fungibility is not of primary importance.

10. The group structure model allows for a natural allocation of diversification benefits to its true owner.

- Diversification means that some risks can be balanced with some other positions. If no risk transfer instrument (e.g. internal reinsurance) is in place between a parent and a subsidiary then the subsidiary cannot count on the help from his parent if such a support would be needed. This is why the subsidiary does not get a diversification benefit in its PCR. In this case it is the parent company who is the beneficiary of all the diversification. Economically it is in the parent's capital where the value of the subsidiary diversify with other assets and liabilities.

11. The group structure model appropriately adjusts for any gearing of capital or internal creation of capital.

- Double use of capital is not an issue. Capital resources in a subsidiary are used to cover unexpected losses in that subsidiary, whereas the parent uses the value of the subsidiary to cover unexpected losses on the parents balance sheet. As for any other asset, the PCR of the parent takes into account that the value of the subsidiary is subject to risk.
- Creating capital: if the parent company receives loans from subsidiaries and then increases the capital of subsidiaries, capital resources of the subsidiaries can increase. This may happen even if no additional capital is invested from external parties. Therefore such a creation of capital is considered to be corrected in the calculation of capital resources. However even with no correction, capital resources of each legal entity reflect its financial position. Indeed for the subsidiaries providing a loan credit risk for instance increases so that the increase in capital goes hand in hand with an increase of PCR. Altogether there is nothing to be corrected, because the true economic situation of each legal entity is already shown.

## Annex 4: Examples of approaches with a consolidated focus

*This annex supplements section 6 of the Issues paper which describes in generic terms the features of group-wide solvency assessment undertaken with a consolidated focus.*

*Four examples of approaches with a consolidated focus are presented:*

1. *The Australian Group approach*
2. *The Canadian approach*
3. *The EU Solvency I Insurance Groups Directive*
4. *The EU Solvency II Proposal*

### 4.1 The Australian Group approach

*Introduction*

1. APRA has been developing a tiered approach to the supervision of general (non-life) insurance groups, and in particular to the assessment of capital adequacy. This approach is currently not proposed for life insurance groups as APRA requires amendment of its legislative powers with regard to life insurance in order to implement group supervision in that industry. The levels at which supervision would apply to non-life insurers are:

- Level 1 - individual APRA-authorised general insurers (Level 1 insurers) on a stand-alone basis;
- Level 2 – consolidated general insurance groups (Level 2 insurance groups) that incorporate all general insurers within the group, both domestic and international. The group may be headed by an APRA-authorised insurer (Level 1 insurer) or an APRA-authorised non-operating holding company (NOHC); and
- Level 3 - conglomerate groups involving Australian insurers. This level would encompass the entire conglomerate group headed by an APRA-regulated entity and containing APRA-authorised institutions operating in more than one regulated industry.

2. This tiered approach is the same tiered approach as applies in banking supervision in Australia.

*Summary of Level 2 supervision*

3. Ultimately, the objective of Level 2 general insurance group supervision is to ensure that the group is financially sound and that group activities and inter-relationships do not adversely affect the financial soundness of authorised Level 1 general insurers within the group. This should reduce the risk of financial contagion across members of the group and hence enhance the protection of Australian policyholders.

4. The foundation of APRA's approach to Level 2 supervision is that general insurance groups should meet essentially the same minimum capital requirement (MCR) on a consolidated basis as apply to individual authorised general insurers. That is, there should be no difference in MCR between a Level 2 insurance group with a number of subsidiaries compared to a single insurer which operates with a number of branches. It is not APRA's

intention to require overseas subsidiaries of an Australian general insurance group to meet Australian prudential standards on a stand-alone basis.

5. In assessing the capital adequacy of the group:

- The MCR of the Level 2 group would be determined using the prescribed approach or via an internal model. Responsibility for capital management would rest with the Board of directors of the parent entity.
- The capital base would be assessed on a consolidated group basis. The effect of intra-group transactions would be assessed at the group level. This may result in capital instruments within entities of the general insurance group which are eligible as capital at Level 1 being excluded from the capital base of the group as a whole at Level 2.
- Material subsidiaries operating in other industries, unrelated to the general insurance business, would need to be deconsolidated from the Level 2 general insurance group and their value would be deducted from the Level 2 group's capital base.
- APRA would not prescribe where the surplus capital of the group can be held. Level 1 general insurers within the group would continue to be required to meet the MCR on an individual (Level 1) basis.

6. APRA's prescribed approach to assessing the minimum capital requirement has three components:

- Insurance risk capital charge - relates to the risk that the value of net insurance liabilities is greater than the value determined by the actuary at a 75% probability of sufficiency;
- Investment risk capital charge - relates to the risk of an adverse movement in the value of an insurer's on-balance sheet assets and certain off-balance sheet obligations;
- Concentration risk capital charge - requires an insurer to hold capital against the highest single loss expected to occur on a 1 in 250 year basis due to an aggregation of risks.

7. APRA's intention (under both the prescribed approach or where an internal model is used) is to target an MCR with a 99.5% probability of sufficiency, based on a one year time horizon with liabilities run-off to ultimate after that period.

8. In addition to the quantitative minimum capital requirements, a group-wide risk management framework is required. This includes requirements in relation to reinsurance management, business continuity management and policies relating to outsourcing arrangements. The requirements are based on the principles applying to Level 1 general insurers but are appropriately modified for application at the group level.

9. The Level 2 group would need to appoint a Group Auditor and Group Actuary.

10. Semi-annual reporting would be required based on existing group accounts prepared in accordance with Australian equivalents of International Financial Reporting Standards (AIFRS). One significant adjustment to AIFRS requirements is that liability valuations would need to be established at a 75 per cent probability of sufficiency - AIFRS does not mandate a level of sufficiency.

*Diversification*

11. Diversification is taken into account in the Group Actuary's insurance liability valuation and the extent of diversification allowance that is included will depend on the individual circumstances of each insurance group. APRA reviews the appropriateness of the allowance for diversification as part of its supervision, particularly in the context of approval to use an internal model for regulatory capital purposes.

12. Under the prescribed approach, factors are applied to the valuation of insurance liabilities to derive the insurance risk capital charge.

*Fungibility of Capital*

13. APRA is taking a consolidated approach to Level 2 group supervision. This approach has an implicit assumption of fungibility of capital. However, APRA is of the view that Level 2 group supervision is an adjunct to Level 1 insurer supervision. Each Level 1 insurer within APRA's jurisdiction must meet its Level 1 MCR with its own capital resources.

*Coordination between supervisors*

14. APRA coordinates with other supervisors in its approach to supervision of major insurance groups, for example through joint participation in on-site reviews of overseas operations.

15. APRA has entered into MOUs with other supervisors to share information and is currently working with other jurisdictions to implement the IAIS' multilateral MOU.

*Level 3 Conglomerate Group Supervision*

16. APRA is currently in the early stages of developing its approach to conglomerate supervision where the conglomerate has entities in more than one prudentially supervised industry (e.g. banking and insurance).

## 4.2 The Canadian Approach

OSFI assesses risks and applies its supervisory framework on a group-wide basis. The capital requirement is determined on a consolidated basis. The consolidated entity includes all subsidiaries (entities, whether held directly or indirectly, that are controlled and joint ventures where generally accepted accounting principles require pro-rata consolidation) that carry on a business that a company could carry on directly (e.g., life insurance, real estate and ancillary business subsidiaries). The Minimum Continuing Capital and Surplus Requirement (MCCSR) used by Canadian life insurers is a risk-based framework. OSFI also has established a framework for assessing the capital adequacy of insurance holding companies recognizing that significant portions of their operations could be outside Canada. OSFI expects holding companies and operating companies to maintain adequate capital for unexpected losses and to manage their capital in a manner that is commensurate with the group risk profile and control environment.

Non-life Financial Corporation Controlled by the Company

Equity investments in non-life solvency regulated financial corporations that are controlled by the company are deducted from the sum of tier 1 (T1) and tier 2 (T2) capital. The company must deduct these investments in controlled non-life financial corporations based on the equity method of accounting. Where the company has investments in preferred shares or debt instruments of the corporation, the amount invested in these instruments are also deducted from capital if they qualify as capital by the regulator in that corporation's home jurisdiction.

*Qualifying Non-Controlling Interests*

Non-controlling interests, including subordinated debt issued to independent investors, arising on consolidation are included in the MCCSR in the respective categories, provided:

- the instruments meet the criteria applicable to that category; and

- they do not effectively rank equally or ahead of the claims of policyholders and other senior creditors of the insurer due to a parent guarantee or by any other contractual means.

Companies are generally permitted to include in available capital minority and other non-controlling interests in operating subsidiaries that are fully consolidated for MCCSR purposes, provided that the capital in the subsidiary is not excessive in relation to the amount necessary to carry on the subsidiary's business, and the level of capitalization of the subsidiary is comparable to that of the insurance company as a whole.

If a subsidiary issues capital instruments for the funding of the company or that are substantially in excess of its own requirements, the terms and conditions of the issue, as well as the intercompany transfer, must ensure that investors are placed in the same position as if the instrument were issued by the company in order for it to qualify as capital on consolidation. This can only be achieved by the subsidiary using the proceeds of the issue to purchase a similar instrument from the parent.

In summary, OSFI uses a model where it requires the deconsolidation of non-consolidated subsidiaries and deduction of their net assets (both Tangible and Intangible) from the capital of the remaining consolidated insurance group. Some excess capital held by a subsidiary can be used to help meet a parent entity's capital requirements. In calculating the excess capital in the subsidiary, OSFI first applies an excess buffer to the stand-alone capital

requirement of the subsidiary. Any remaining excess capital can be moved upstream to meet a parent obligation, with 50% assigned to group T1 capital and 50% to group T2 capital.

The Insurance Holding Company (IHC) capital regime imposed on insurers applies to standalone insurers as well as non-operating life insurance holding companies, which is the structure used by most big life insurers since demutualization.

The following are some of the main features of the IHC Guideline:

- Guidelines apply to regulated insurance companies and non-operating life companies ("NOLC"), together referred to as Holdcos.
- Holdcos are required to calculate capital on a consolidated basis (as are operating insurance companies).
- Investments in "unlike" subsidiaries (includes deposit-taking institutions and, with OSFI permission, "significant" foreign life subsidiaries) are deconsolidated and deducted. Recognition is given to surplus capital in significant foreign life subsidiaries subject to a 7.5% capital charge – similarly, deficiencies must be deducted.
- The formula for deducting investments is:
  - Goodwill is deducted from T1;
  - Remaining investment is deducted from T2;
  - Surplus or deficiency in subsidiary capital is added or deducted from T2 (surplus capital is defined as capital in excess of supervisory intervention levels).
- Holdco capital available is calculated using MCCSR rules that apply to life companies with one exception:
  - Non subordinated debt with term exceeding 5 years may be included in Tier 2 B capital (this appears to allow an element of double-gearing).

The IHC capital framework is under review and therefore could be modified in a recent future.

The non-life insurance companies in Canada currently report their regulatory financial statements on an unconsolidated basis (legal entity focus); however, OSFI's supervisory framework is applied on a consolidated basis. Work is underway to require consolidated financial statements with the coming into force of IFRS. The Minimum Capital Test (MCT) is adjusted to provide a consolidation-like capital treatment. In general, the non-life insurance companies in Canada do not have substantial investments in subsidiaries.

### 4.3 The EU Solvency I Insurance Groups Directive

The approach to group-wide supervision regulated under the Insurance Groups Directive[19], is an example of a supplementary (to solo supervision) approach to group-wide supervision.

This approach considers the legal and economic structure of a group of the greatest importance. Under this approach, solo supervision remains the core of insurance supervision. However, this approach also takes into account the effects of being part of a group. Hence, in order to get a broader and clearer image of the relationships and operations of the group, group-wide supervision is also carried out.

A summary of the principal aspects of this approach is outlined:

1. Solo supervision is maintained as an essential principle of insurance supervision. Supplementary supervision does not substitute or alter its scope and rules.
2. Supplementary supervision is exercised on the insurance entities. This additional supervision takes into account the group's structure.
3. Following the group structure, situations such as those of "holdings" need to be considered. This consideration does not necessarily mean that the supervisor needs to extend its supervision to this type of entities, except as regards "fit and proper" requirements. The members of the board of an insurance holding company have to be "of sufficiently good repute and have sufficient experience to perform [their] duties".
4. An essential point of the Directive is the necessity to calculate an adjusted solvency situation for (re)insurance entities forming part of a group. In practice the eligible capital resources at group level have to exceed the capital requirement calculated for the group as a whole.
5. To this end the Directive contemplates the possible application of three calculation methods, considered as equivalent: deduction and aggregation method; requirement deduction method and consolidated based method.
6. With independence of the calculation method used some general principles are included. These need to be followed in any case.
7. Among these general principles are those in relation with transferability of assets, the elimination of double use of solvency margin elements and the elimination of the intra-group creation of capital.
8. The Directive deals with a series of other aspects of which consideration is needed when dealing with this supplementary supervision: definition of the supervisor in charge of this supplementary supervision; availability and quality of information; access to information; cooperation of the supervisors; intra-group transactions.

[19] Directive 98/78/EC of the European Parliament and the Council.

## 4.4 The EU Solvency II Directive Proposal

1. The following is a summary of the proposals in Solvency II for group supervision and solvency assessment. It is acknowledged that at the time of writing these proposals have not yet been adopted by the European Parliament and Council. The summary is intended to provide an outline of the key points of the proposal - although the final adopted text could differ.

*The rationale behind the proposed approach to insurance group supervision*

2. Solvency II introduces an economic risk-based approach to insurance supervision in the EU. The primary objective of Solvency II is the protection of policyholders. This is achieved through a harmonised prudential framework.

3. The principles and objectives of Solvency II apply equally to insurance groups. The Solvency II proposals for groups provide for a new balance of group supervision between the traditional view of an insurance group as a collection of separate legal entities and a view of the group as an integrated whole across which risks are pooled and diversified.

4. The key developments in Solvency II are:

   a. The identification and appointment of a group supervisor with rights and responsibilities. The group supervisor is given primary responsibility for all key aspects of group supervision (group solvency, group own risk and solvency assessment (ORSA), intra-group transactions, risk concentration, risk management and internal control, group Solvency and Financial Condition Report). Such responsibility must be exercised in cooperation and consultation with supervisors of insurance entities within the group. In addition, coordination arrangements must be established between all supervisors.

   b. The introduction of a complete set of provisions on coordination, exchange of information, consultations prior to decisions and verification of information between supervisors to ensure efficient group supervision (including provisions relating to EU insurers which are members of a group with a parent outside the EU). In particular, the Proposal introduces the possibility for the Commission to adopt a decision as to whether a particular third country is to be regarded as equivalent. The Proposal also states that group supervision should normally be carried out at the top level in the EU (and possibly at national or supranational level) only, significantly limiting the need for sub-group supervision.

   c. Supervisory review of the group's governance and risk management system including the group ORSA, as well as intra-group transactions and risk concentrations at a group level. Building on the governance provisions and risk management at solo level and the Joint Forum Conglomerates Directive, these provide tools for the group supervisor and supervisors of insurance entities to understand the dynamics and inter-relationships between the legal entities that form the group.

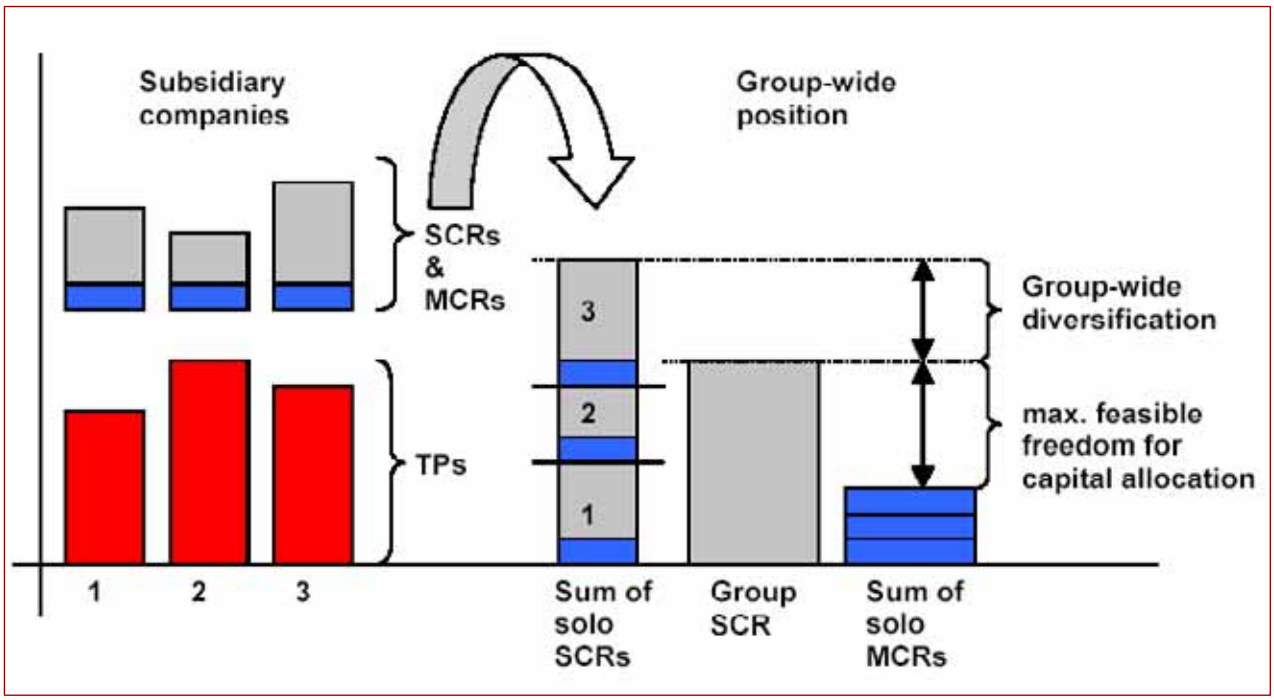
   d. Public disclosure of a Group Solvency and Financial Condition Report, as provided for at solo level, in order to further transparency and market discipline.

   e. The calculation of group solvency at group level. The same principles for calculating the PCR are applied at the group level with a strong preference for using the consolidation method (group PCR). This eliminates double counting of capital resources within the group and shows, in addition to solo solvency,

externally generated capital resources of the group available to meet the risks of the group. In addition, the group can apply to use an internal model to calculate its group PCR and the PCR of solo insurance entities within the group. The procedure for approving this model is based on all relevant supervisors reaching a joint decision, but in absence of a joint decision, the group supervisor may approve the model.

5. Solvency II recognises that there are benefits to the way insurance groups pool and diversify risk. The 'diversification benefits' arising from the non-correlation of risk form part of the PCR calculation and are available for the group PCR calculation. See Figure 1 for an illustration of solo and group capital requirements. (The PCR is referred to as the Solvency Capital Requirement (SCR) under Solvency II)

*Figure 1: Solo and Group Capital Requirements under Solvency 2*




6. As shown by the illustration in Figure 1, the inclusion of diversification benefits means that the group PCR (SCR) may be lower than the sum of solo PCRs. The extent that groups can recognise diversification benefits in the group PCR is limited under Solvency II by the requirement that the group PCR cannot be lower than the sum of solo Minimum Capital Requirements (MCR).

7. The Solvency II Framework Directive[20] notes that "own funds" (capital resources) must be appropriately distributed within the group to protect policyholders. Capital resources which are only available to a particular undertaking (e.g. not paid-up capital) may only be used to cover the PCR of that undertaking.

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[20] Amended Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the taking-up and pursuit of the business of Insurance and Reinsurance (SOLVENCY II) (recast) (presented by the Commission pursuant to Article 250 (2) of the EC Treaty) 26.2.2008

8. Solo insurance undertakings must therefore hold capital resources to meet their PCR, unless the objective of policyholder protection "*can effectively be achieved otherwise*".[21] This establishes the principle whereby undertakings forming part of a group may be permitted under strict conditions (see footnote 13) to apply for a derogatory regime, the group support regime (GSR).

9. The GSR seeks to facilitate capital management by insurance groups by a) allowing under certain conditions a parent entity to use "declarations of group support" to meet part of the PCR of its subsidiaries, and b) introducing limited derogations to certain solo provisions where appropriate. To some extent, GSR enables groups to utilise diversification benefits to provide group support to their subsidiaries.

*What does the Group Support Regime (GSR) allow groups to do?*

10. The GSR allows a subsidiary to use its own capital resources, group support or a combination of both to meet the difference between its MCR and PCR. The framework directive states that group support will be treated as a form of "ancillary own funds." Such capital resources comprise commitments that insurers can call upon in order to increase their financial resources and also include members' calls and letters of credit.[22]

11. The group support constitutes a legally binding bilateral commitment from the parent to the subsidiary to transfer capital resources if the solo entity breaches its MCR. The amount of group support will be specified in the commitment from the parent.

12. The obligation is on the parent to transfer capital resources and this may be provided from capital resources present in the parent or any subsidiary provided the transfer of capital resources does not result in a breach of solo PCR or local regulatory requirements of that entity.

13. It is considered that the most common way of transferring capital resources pursuant to a group support will be via a dividend-subscription method.[23] Any intra-group transfer must count as capital resources for the purposes of the subsidiary receiving the intra-group loan (e.g. an inter-company loan may not be acceptable as it may not increase the capital resources of the subsidiary receiving).

*What is the process for applying the GSR?*

14. It is important to note that the GSR is not the default regime so groups must apply to use the regime. The application to apply the regime is submitted to the group supervisor who must share and discuss the application with the other supervisory authorities concerned. The group supervisor must use the coordination arrangements in place (e.g. the college of supervisors) to consider the application. The process for approval mirrors the process for group internal models. Ultimately, the group supervisor may make the final decision on the application where a joint decision cannot be reached within a six month timeframe.

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21 Recital 70 of the Solvency II Framework Directive

22 Article 237(1) of the Solvency II Framework Directive

23 See CEIOPS advice to the European Commission, "*Measures to facilitate the effective supervision of groups*", Annex 1.

15. In order to be able to use GSR, the parent and subsidiary must satisfy specific conditions laid out in the framework directive including:[24]

- The risk management and internal controls of the parent cover the subsidiary;
- The group has sufficient group capital resources to cover its consolidated group PCR;
- There is no current or foreseeable material practical or legal impediment to the prompt transfer of capital resources from the parent to a subsidiary;
- The commitment of group support meets all the requirements under the law of the parent undertaking.

16. Once the application of the GSR is approved and applied, any capital add-on to the PCR of a subsidiary will be determined by consultation between the supervisor of the subsidiary and the group supervisor. The solo supervisor may propose to the group supervisor to apply a capital add-on if it considers that the risk profile of the subsidiary differs significantly from the assumptions in the internal model or standard formula. However, if the solo supervisor and group supervisor cannot agree on a capital add-on, the group supervisor may make the ultimate decision.

*How is the regime enforced?*

17. The framework directive provides for two key supervisory intervention points regarding a subsidiary's regulatory capital requirements:[25]

- **Breach of the PCR** – where a subsidiary no longer has a combination of capital resources and group support to cover its PCR or there is a risk that this may occur, the solo supervisor may call on the parent to provide a new commitment of group support. Any new declaration is subject to the same conditions noted above. It is important to note that a breach of the PCR does not necessarily require a transfer of capital resources to the subsidiary.
- **Breach of the MCR** – where a subsidiary no longer has capital resources to cover its MCR, the parent will be obliged under the group support commitment to transfer capital resources up to the lower of the amount needed to restore MCR or the amount of group support. The subsidiary must submit a plan to restore its MCR within three months and the solo supervisor may call on the parent to transfer capital resources to ensure the MCR is again met and provide a new commitment of group support to restore the PCR. A transfer must occur upon breach of the MCR as it represents the minimum of amount of eligible capital that must be held in a subsidiary. The group supervisor shall use all powers available, including the withdrawal of authorisation, to ensure the group provides the requested transfer of capital.

18. Where the parent does not provide a new commitment or the new commitment is not accepted, the regime ceases to apply to the subsidiary. The solo supervisor regains full supervisory oversight of the subsidiary, including ensuring that the PCR is met by capital resources. The group support commitment will cease to count as capital resources towards

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[24] Article 234; 237 of the Solvency II Framework Directive

[25] Article 238 of the Solvency II Framework Directive

the solo PCR. However, the parent will continue to be bound by the most recent commitment.

19. The framework directive also lays out the conditions where the GSR will cease to apply to a subsidiary or all subsidiaries. This may include non-compliance with other areas than solvency requirements, for example, risk management controls and limits on the transferability of assets representing capital resources.