Internal Interconnectedness in Resolution Planning for Insurers

Practices paper

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Executive Summary

Mapping and assessing financial and operational internal interconnectedness are of critical importance for resolution planning for insurance companies. Most insurers are part of an insurance group or conglomerate and are often linked with other entities within the group through financial exposures, such as intragroup loans, guarantees, derivatives positions and reinsurance contracts. In addition, they often receive operational services from other entities in the group, such as human resources, risk management, and information and communications technology. Individual insurance entities within the group depend on these linkages for their financial and operational continuity. Moreover, these interlinkages may have an impact on the design and choice of the preferred resolution strategy.

This paper explores ways to map and assess financial and operational interconnectedness. It highlights a range of current practices from several jurisdictions. The reporting and assessment of intragroup financial transactions is a common practice in group supervision and recovery planning in many jurisdictions. In some jurisdictions there are specific requirements for operational interconnectedness. For example, in one jurisdiction a dedicated template is used to report critical services for the purpose of resolution planning. Resolution authorities can build on these practices for purposes of resolution planning and to discuss in CMGs the implications of the interlinkages for resolution.
Introduction

The FSB Key Attributes of Effective Resolution Regimes for Financial Institutions1 ("FSB KAs") address various aspects of interconnectedness:

- KA 11 states that recovery and resolution planning should take account of the specific circumstances of the firm and reflect, among other things, its interconnectedness.

- I-Annex 3 (Resolvability Assessments) elaborates on the documentation and assessment of intragroup transactions.

- I-Annex 4 (Essential Elements of Recovery and Resolution Plans) notes that firms should have the capacity to provide essential information needed to implement recovery and resolution plans, including “intra-group inter-linkages, for example, core business operations and interconnectedness by reference to business lines, legal entities and jurisdictions, intragroup exposures through intra-group guarantees and loans, and trades booked on a back-to-back basis; dependencies of the firm’s legal entities on other group entities for liquidity or capital support as well as other (for example, operational) support.”

- II-Annex 2 (Resolution of Insurers) specifies that assessment of the feasibility of the resolution strategy should cover the extent to which any interconnections, or interdependencies between group entities through intra-group transactions (for example, reinsurance transactions, loans or letters of credit, collateral upgrades or other liquidity support provided to banking entities, guarantees or letters of support, cost sharing or profit and loss-sharing agreements among affiliates), affect the implementation of the resolution strategy.

This paper (“Paper”) discusses the mapping and assessment of both financial and operational internal interconnectedness2 within an insurance group to facilitate effective resolution planning. This paper could be relevant for all insurance groups, such as Global Systemically Important Insurers (G-SIIs)3, Internationally Active Insurance Groups (IAIGs)4 and other insurance groups eligible for resolution planning. With a view to authorities’ limited resources, application of mapping and assessment can be proportional to the size and complexity of a group. The Paper compiles practices used by various jurisdictions and does not provide guidance.

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1 FSB (2014) Key Attributes of Effective Resolution Regimes, October.
2 While intragroup financial activities such as reinsurance adds extra activities in the area of actuarial, finance and accounting, treasury operations, and regulatory filings, these activities can also be considered for operational risk. This implies a dual financial and operational connection.
3 As previously identified by the FSB in consultation with IAIS and national authorities.
4 As identified by group-wide supervisors based on the criteria provided in the IAIS’ Common Framework for Supervision of Internationally Active Insurance Groups (ComFrame). https://www.iaisweb.org/page/supervisory-material/insurance-core-principles-and-comframe/file/98002/register-of-internationally-active-insurance-groups-iaigs
1. Financial interconnectedness

Identification and mapping of intragroup financial interconnections are key for resolution because they are essential for financial continuity before, during and after resolution. Identification and mapping enable understanding of how entities within insurance groups are interrelated and allow for capturing the complexity of a group and indicate how contagion channels would materialise.

1.1. Mapping

This section sets out considerations and good practices for mapping financial interconnectedness. The proportionality principle (size and complexity of the group) should be kept in mind when analysing financial interconnections for a given insurance group.

1.1.1. Identification of intragroup financial positions and interconnections

A good understanding of the financial interconnectedness of the groups in their remit helps resolution authorities for both recovery and resolution purposes. A list of financial intragroup transactions can be helpful in this regard.

There is no one-size-fits-all approach for identifying intragroup transactions or financial (and operational) interconnectedness, as each jurisdiction has its own legal and regulatory setting and implications. See Box 1 for a suggested objective set of intragroup transactions.

Regular supervisory reporting often yields a clear overview of intragroup financial interconnections within a group. Insurers may be required to provide the supervisory authorities with granular data on key financial interconnections, as well as qualitative information. An example of a good practice is Switzerland’s IGT reporting (see Box 2).

When defining a perimeter of interconnections, key characteristics of the underlying financial arrangements need to be assessed, either directly in the reporting process or in the evaluation of management and governance processes. In particular the following features should reflect the qualitative aspects of the management and setting of these interconnections:

- Complexity of the structure;
- Level of encumbrance;
- Investment strategies, management framework, risk appetite and internal and approval work flows;
- Description of material risk concentration;
- Diversification of the group insurance activities, in terms of geographical areas and business lines; and
- Details of outsourcing arrangements.

Some contractual arrangements need particular attention. The internal financial positions give information on the extent, weight and risk associated to them:
Main features of the financial intragroup arrangement:

- Purpose and contractual nature/status of the position;
- Length/maturity, duration;
- Payment schedule; and
- Interest rate, dividends and other commitments to pay.

The legal status (i.e. proper execution and legality of a contract) and the eligible law of the intragroup arrangement in consideration (subject to the jurisdiction where it is issued or subscribed);

Any resolution-proof clauses attached to it, i.e. provisions making the contract resilient to resolution measures;

Recognition clauses of resolution powers, especially when the financial instrument is issued in a jurisdiction with no resolution regime but where a clause may ensure recognition of resolution measures existing in the parent entity’s jurisdiction; and

Existing safeguards for counterparties and securities attached to encumbered assets (e.g. collateral, guarantees, netting arrangements).

Recovery plans also often include a substantial description of interconnectedness within a group. Where local jurisdictions require the insurers to write a recovery plan, this often implies the description of the funding interdependencies, especially in terms of (i) equity and debt financing and (ii) central financial services such as use of cash pooling, Asset and Liability Management (ALM) and liquidity provisions. Italy’s IVASS provides a good practice on how to analyse financial interconnections in recovery plans (See Box 2).

Additionally, specific consideration should be given to financial interconnections in the case of financial conglomerates and cross-border groups. For such groups, mapping of financial interconnections needs to be adapted and should consider sectoral and geographical requirements. This is especially the case of financial conglomerates that include both banking and insurance activities. Requirements must meet sectoral specificities in terms of solvency, capital and liquidity provisions. A parent company must make sure its subsidiaries meet local requirements whatever their sectorial specialisation or jurisdiction in which it operates.

1.1.2. Aspects of relevance in the reporting of intragroup arrangements

If not requested in the existing prudential supervisory reporting requirements, some information can be asked for on an ad hoc perspective, or regularly in the context of reporting for resolution purposes. Resolution authorities may also proactively review Management Information sources (e.g. board packs, risk committee packs etc.) or, simply, publicly disclosed information.

Resolution authorities should define the scale of the required information for each undertaking in their remit: group-wide or subgroup-level if the undertaking belongs to a group that is not subject to group supervision at the national level. Resolution authorities should be aware of the
consolidation perimeter under analysis. Required information should also take consideration of scale and proportionality factors.

A quantitative threshold (e.g. the top 50 exposures, or any exposure larger than 5% of the required capital), whose determination and application rules remain at the hands of local competent authorities, should be defined in order to include all significant intragroup exposures. This threshold should be reasonable and reflect objectively the size and magnitude of insurance undertakings of each jurisdiction in consideration.

Box 3 offers a view on the way Intragroup Transactions are reported in the United States, under the aegis of the NAIC (National Association of Insurance Commissioners) and are controlled for supervisory and resolution purposes.

1.1.3. Mapping of interconnections to aspects of resolvability

The purpose of most recovery and resolution regimes is to preserve the existence of so-called critical functions and/or sometimes of significant or relevant business lines or core perimeter of activities. While their definitions (and denominations) vary among jurisdictions, critical functions can be defined5 as those functions provided by an insurer to third parties not affiliated with the firm, (i) the sudden failure of which would be likely to have a material impact on the financial system and the real economy (by giving rise to systemic disruption or by undermining general confidence in the provision of insurance), and (ii) that cannot be substituted within a reasonable period of time and at reasonable cost. Significant business lines are activities that may be considered as being key in the business organisation of the insurance undertakings and that represent substantial sources of revenue or profit.

For recovery and resolution purposes, insurers may be required to identify Critical Shared Services, defined6 as activities performed within the firm or outsourced to third parties where failure would lead to the insurer being unable to continue to perform a critical function. In particular, finance-related shared services7 involve the management of financial resources of the insurer related to the operation or provision of critical function(s).

A mapping of Financial-related Critical Shared Services to Critical Functions or significant business lines is often useful in jurisdictions that have set up an insurance recovery and resolution regime, mostly for operational and financial continuity purposes. The proportionality principle (size and complexity of the group) should be considered. Consequently, the following points should be particularly considered with respect to internal interconnections:

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5 As per FSB guidance on Developing Effective Resolution Strategies and Plans for Systematically Important Insurers, Section 3.2
6 Ibid, Section 3.3.1. The guidance also adds: Critical shared services and critical functions are intrinsically linked: without continuity of critical shared services, the continued provision of critical functions in resolution may not be possible.
7 Ibid, Section 3.3.1. Finance-related shared services include, but are not limited to: treasury-related services, trading, asset management, actuarial and risk, including development of underwriting standards and reinsurance risk policies, reporting and monitoring of exposure, actuarial services, assessment of necessary level of claims reserves including market valuations, reinsurance accounting, including accrual, estimation and closing processes, regulatory and management financial reporting, intra-group reinsurance management, policy liability and premium layoff management, reinsurance payable and receivable administration, captive and fronting management, and insurance pool oversight.
■ Dependence of Critical Functions or significant business lines on shared financial services centres; and

■ Reliance of Critical Functions or significant business lines on centrally managed financial arrangements (such as liquidity, cash management/treasury).

The proper running of Critical Functions is dependent on key internal interconnections such as funding arrangements.

Similarly, a mapping of Critical Functions and/or significant business lines to (material) legal entities is often required in jurisdictions that have set up an insurance recovery and resolution regime. Therefore, the following points should be particularly considered with respect to internal interconnections:

■ Extent to which (material) legal entities are interconnected financially: ownership relations, magnitude of intragroup loans, level of internal debt, intragroup guarantees;

■ Dependence of some (material) legal entities on shared financial services centres;

■ Reliance of (material) legal entities on financial services based on arrangements linked to Service Level Agreements (SLAs);

■ Reliance of some (material) legal entities on centrally managed financial arrangements (liquidity, cash management); and

■ Reliance of some (material) legal entities on internal reinsurance mechanisms.

Box 1: Typical financial interconnections

The following list gathers typical financial interconnections that can be found within financial institutions with insurance activities. This list is not exhaustive and does not correspond to requirements of a given jurisdiction; it is written for indicative purposes.

■ Intragroup equity/dividends, in particular:
  • Interest in associated undertakings and joint-ventures
  • Exposures in related parties
  • Intragroup risk-absorbing capital instruments
  • Equity-type transactions
  • Dividends payment
  • Investments in subsidiaries

■ Intragroup debt and asset transfers
  • Notes, subordinated debt
  • Hybrid debt, convertible debt, contingent liabilities
  • Bonds, coupons and other interest payments
- Borrowings, lending
- Collateral provided

- Intercompany balances
  - Intercompany borrowing/Loans
  - Receivables

- Arrangements to centralise management of assets and cash, possible liquidity perimeters and/or centralised shared financial services

- Reinsurance
  - Group reinsurance arrangements including the type of reinsurance cover and associated arrangements to mitigate credit risk such as collateral or guarantees

- Intra-group guarantees and commitments
  - Including letters of intent, net-worth agreements and letters of credit

- Derivatives and other risk transfer instruments

- Profit and loss
  - Indemnities, additional commissions and fees (this typically happens when insurance products are commercialized through a given network within the same group and pay a fee for this)

- Off-balance sheet exposures

- Cost sharing and distribution arrangements (also relevant to operational interconnectedness in Section 2).

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**Box 2: Good practices for mapping of financial interconnectedness**

**Good practice 1: Intra-group transaction (IGT) reporting in Swiss supervision**

All insurance groups and insurance conglomerates, which are supervised by FINMA, are subject to Intra-group transactions (IGT) reporting requirements. Currently, these are six groups. The legal base of the requirements is stipulated in the Insurance Supervision Ordinance\(^8\) and the supervisory practice is specified in a Circular on insurance groups and insurance conglomerates.\(^9\) The IGT reporting as a key supervisory instrument for insurance group supervision has been in place for many years.

In principle, all types of IGT between entities belonging to the same group are in scope for reporting to the group-wide supervisor including (1) equity, senior-debt and subordinated-debt, (2) guarantees, (3)

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\(^8\) Insurance Supervision Ordinance Articles 193 and 194.

\(^9\) Circular 2016/4 Insurance groups and conglomerates (Supervision, organisation, structure, intragroup transactions, and reporting by insurance groups and conglomerates).
reinsurance, (4) derivatives, (5) repurchase/reverse repurchase, (6) securities lending/borrowing, and (7) cost-sharing.

There are two ways IGTs have to be reported. On the one hand, on an ad hoc basis (single IGT transactions) and on the other hand on a regular basis (normally once year on a portfolio basis). For both reporting methods, the circular defines materiality thresholds.

In general there are no specific difficulties for groups when reporting the IGT to FINMA. The template is deemed straightforward including clear reporting limits as mentioned in the circular. If FINMA would have questions on a specific transaction it would get in contact with the group in order to understand the background and/or specifics of the transaction.

An obvious but important pre-condition for the supervisor to assess the IGT reporting in a meaningful way is that the overall legal entity structure, i.e. the complete list of all legal entities belonging to the group, with all hierarchical levels, is kept up-to-date and submitted to the supervisor at least on a yearly basis so that IGT can be assessed in context of the current group structure.

The interests on IGT go beyond the ones of the group-wide supervisor. Therefore, it is a typical standard item on the agenda of the supervisory colleges of the Swiss insurance groups/conglomerates. The extent, types, development and supervisory assessment of IGT are discussed in colleges. The local legal entity perspective from college members and the group perspective complement each other, for instance when it comes to identifying issues that may relate to number and amount of guarantees, how risks are passed in the group or questions on ultimate risk owner. Possible issues that are identified vary according to the type of IGTs. In case it represents a transaction which requires supervisory approval, e.g. hybrid capital transaction or a large intragroup reinsurance transaction with a Swiss legal entity, FINMA would be involved already before the IGT is reported. Other types of issues are of a large variety, e.g. new intragroup loans, derivative trades in connection with an announced/signed corporate M&A transaction, a large intragroup repurchase/reverse repurchase transaction or new/differently structured intragroup reinsurance transactions between subsidiaries.

**Good practice 2: IGT reporting in Italian recovery plans and supervision requirements**

The Italian insurance supervisor (IVASS) introduced some regulatory requirements for insurers to develop a (pre-emptive) recovery plan, which concerns insurers whose failure might have serious impact on the market. IVASS received the first recovery plans relating to 2019 from eight insurance groups covering a very significant national market share.

According to IVASS regulation, the recovery plan must explain the main features and type of risks faced by the entities of the group together with the essential elements of the plan, such as: the relevant and critical functions identified; triggering indicators towards activation of recovery measures; measures to be taken to restore the financial position; governance processes and information on the liquidity risk management. The plan needs to assess obstacles to the implementation of the measures, identify the nature of these obstacles (legal, operational, regulatory, accounting or fiscal and/or reputational) and suggest mitigating actions. It should also consider the legal and operational interconnections among the group companies and outside of the group.

Amid other requirements, the recovery plan shall include a description of the most relevant internal interconnections to inform the supervisor's analysis on business lines, intra-group exposures through guarantees and loans, collaterals, dividends distribution, cost sharing, reinsurance transactions, intragroup dependencies for liquidity or capital support provided by other group's entities, functions and/or (shared) services relevant for the continuation of the business and on any interconnection or interdependence with third parties possibly affected by the implementation of the recovery strategy.

The analysis about interconnectedness captured in the recovery plan is usually complemented with information collected via regular supervisory reporting, as information on intragroup transactions (IGTs) transmitted according to supervisory requirements, and other information available on demand as Group Risk Policies and Risk Appetite Framework or shared within the CMG.
The regular supervisory reporting requires both quantitative and qualitative information on IGTs. The quantitative reporting is transmitted on an annual basis for the significant transactions, while it is immediate both for the very significant transactions and for those operations that must be reported in any case (based on their nature and regardless their materiality).  

The scope of this reporting builds on art. 377 of the Commission Delegated Regulation (EU) 2015/35 and ranges from data on: (a) investments; (b) intercompany balances, including loans, receivables and arrangements to centralise the management of assets or cash; (c) guarantees and commitments such as letters of credit; (d) derivative transactions; (e) dividends, coupons, and other interest payments; to (f) reinsurance operations; (g) provision of services or agreements to share costs; (h) purchase, sale or lease of assets.

In this regard, IVASS closely monitors the following items which may materially influence the solvency or liquidity position of the group or individual undertakings involved in these transactions:

(i) own funds transfer;
(ii) guarantees issued and received;
(iii) retrocession and any other agreement to transfer exposures or risks; (included special purpose vehicle such as securitisation)
(iv) purchase, sale or lease of liabilities.

The qualitative information, including information on the specific policy on IGTs, is reported on an annual basis. The core of the intra-group policy is that all IGTs carried out within a group should be recorded and be easily verifiable, regardless of their relevance or type. The policy should also distinguish transactions carried out with "insurance" counterparties (see article 335, paragraph 1, points from a) to d) of the Delegated Acts) and with "financial" and "unregulated" counterparties (points e) and f) of the same article). This split is particularly important when setting operational limits, which must be appropriate to the different counterparties.

For financial conglomerates, while a harmonised reporting regime is being developed at the EU level, regulatory initiatives have been adopted in Italy to overcome the limitations embedded into the current European IGTs reporting framework. Building on the SII reporting for insurance groups, since 2016 an ad-hoc report was implemented for insurance-led conglomerates, informing on transactions with entities of other financial sectors and on wider IGTs categories, according to different materiality thresholds. In particular, the methodological approach is based on the criteria for identifying the significant intra-group transactions and for setting appropriate thresholds, and considers the frequency, the volume and the complexity of the IGTs and the associated contagion risk, where the materiality of the resulting exposure may trigger contagion concerns.

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10 IVASS Regulation No. 38/2018.
11 i.e. insurers that meet certain threshold conditions as defined by EIOPA to identify insurers subject to the reporting for financial stability purposes. The current threshold is set at 12 billion euros in total assets.
12 IVASS Regulation No. 30/2016 and ORSA report.
13 A specific intra-group policy should define criteria and procedures for intra-group operations, identifying "significant" and "very significant" transactions, as well as transactions "to be reported in all circumstances" (which are below the thresholds but are not at market conditions, or do not comply with the criteria or procedures set out in the intra-group policy), considering the possible impact on the solvency and risk profile, the type of transaction or the counterparty. The IVASS Regulation No. 30/2016 states that significant and very significant transactions are equal or higher, respectively, to 1% and 5% of the individual Solvency Capital Requirement. Undertakings/groups can identify a different qualitative criterion or thresholds, adequately justified in the policy, taking into account their risk profile and IVASS' guidelines.
14 In 2019, the three European Supervisory Authorities, the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA) and the European Securities Markets Supervisory Authority (ESMA) launched a consultation on draft Implementing Technical Standards (ITSs) on the reporting of intra-group transactions and risk concentration for Financial Conglomerates. The draft technical standards were developed based on the mandate included in Financial Conglomerates Directive (FICOD). These ITS aim at offering a single framework of requirements for the reporting of intra-group transactions and risk concentration by financial conglomerates subject to supplementary supervision in the European Union.
1.2. Assessment

Assessment of internal financial interconnections should include an analysis of their impact on resolution separate from the assessment of their often-positive effects in recovery scenarios. Such analysis can materialise three ways. First, they may cause contagion effects and therefore trigger distress or even lead to resolution. Resolution planning can build on supervisory work addressing this concern. Second, financial interconnections may impact financial continuity of the entity in resolution, for example in cases where IGTs might be terminated. Third, financial interconnections may have an impact on the resolution strategies and how they are designed.

1.2.1. Analysis of contagion effects

Contagion effects are analysed through the main intragroup interconnections described below (not exhaustive list):

■ Capital/Equity

- The holding company may experience significant distress in case of failure of one of its major subsidiaries, as its equity stake is written down to zero.

- Non-compliance with regulatory capital requirements of subsidiaries may require the holding/parent company to inject capital and therefore lead to contagion effects, in case capital needs are substantial.

- In particular, the group needs to abide by all local capital requirements and make sure all requirements in each jurisdiction are met and remedy in the needed delay if necessary.

- Means to ensure financial continuity:
  - In this respect, the insurance undertaking should ensure a sound monitoring of capital levels for each of its subsidiaries and ensure capital fungibility/gearing is adequate to fulfil requirements at any time.
  - Sound capital management policy (capital allocation and dividend transferability) with clear policy and forecasts.

■ Intra-group debt and loans

- Internal loans and bonds: a subsidiary’s default to honour its debts may cause distress in the parent’s accounts.

The harmonization of the intra-group transaction and risk concentration templates will allow to fully aligning the reporting under FICOD in order to enhance supervisory overview regarding group specific risks, in particular contagion risk. They will also increase comparability amongst financial conglomerates of different Member States improving supervisory consistency. Further, the harmonization of the templates enables enhancing the level playing field between financial conglomerates diminishing the reporting burden for cross-country financial conglomerates. In doing so, the present regulation will contribute to the consolidation of the single market. In 2021, the ESAs issued the draft ITS, that will enter into force following the endorsement by the European Commission.
• Subsidiaries/entities with a target of internal loss-absorbing capacity should be on an acceptable level after the impact of a certain stress event.

■ Financial-related shared services

• Some financial services provided to a substantial part of the group entities may be centralised: liquidity, treasury/cash services, hedging etc. A disruption of the servicing entity may endanger access to these services and consequently cause contagion effects.

• This is particularly the case of treasury services when organised through a cash pooling system or with liquidity with the definition of liquidity perimeters.

■ Access to Financial Market intermediaries

• Access to financial market intermediaries is often centralized and is available only to a limited number of group companies ensuring this access for the rest of the group: access to depositary and custodian services, to Central Counterparty Clearing, to Central Bank facilities.

■ Presence of safeguards and encumbrance level

• Assets that are associated to safeguards to internal counterparts such as collaterals, guarantees, netting arrangements etc.

■ Internal guarantees

• Guarantees with high limits or unlimited guarantees may trigger contagion effects. The parent entity would be typically committed to meet its subsidiary’s needs up to the defined limit of the guarantee (if any). When subsidiaries are guaranteed on an unlimited basis the parent is exposed de facto to all commitments of the subsidiary

• Letters of commitment or letters of credit issued by the parent entity.

■ Internal reinsurance

• Certain forms of reinsurance contracts may lead to contagion if the risk-assuming entity is underestimating the risks.

1.2.2. Assessment of IGTs and determination of critical financial-related services

Resolution authorities need to have a thorough knowledge of Intragroup Transactions so as to be able to locate contagion risks and determine which are critical to the group. In this respect, they need to rely on reporting materials and mapping of interconnections detailed in part 1.1. Box 3 offers a good practice on how IGTs are reported and assessed in France, with a particular view on recovery and resolution plans.

Identification of critical shared services of financial nature is key for resolution planning and strategy. Two dimensions need to be considered within the criticality assessment:
Impact of the disruption of financial services on the preservation of critical functions.

Critical financial services are key for the preservation of critical functions and would threaten some resolution objectives, such as financial stability and protection of policyholders, if stopped all of a sudden.

Substitutability of the financial services. In case financial services cannot be smoothly substituted by another provider, criticality is likely to be stronger.

Crisis Management Groups (CMGs) may also be involved in the assessment of significant financial interconnections. Germany’s BaFin provides a good practice in this regard, see also good practice 4 in Box 3.

1.2.3. Impact on resolution strategies

The development of a resolution strategy that best achieves the resolution objectives may particularly be impacted by the degree of internal financial interconnections within a group.

The choice of the resolution strategy (Single Point of Entry vs. Multiple Points of Entry) requires knowledge of the group’s structure and characteristics. For example, an SPE strategy (i.e. resolution tools applied to the top of a group / at the level of a non-operating holding company or topco) may be more suitable to a firm that operates in a highly integrated manner and with a centrally organised model.

In case of a single point of entry resolution, the critical financial services are not within the perimeter of resolution. The contract/SLAs governing the service provision then becomes important to assess. In particular an assessment on:

- the contractual provisions around termination of the services;
- the existence and content of any resolution clauses, and
- the enforceability of the resolution power to change the contract.

An MPE strategy (i.e. resolution tools applied to different parts of the group / at the level of individual operating entities or opco) may be suitable for groups with a decentralised structure and different units. In case of a multiple point of entry resolution, the critical shared financial services can be brought within the scope of application of resolution powers. This enables the resolution authorities to have direct control of this entity, thereby ensuring continuity of services.

Design of the resolution strategy may also depend on legal possibilities and restrictions. The choice between SPE and MPE may not fully be dependent on the interconnections and how they are organised. This may be the case for some international groups when resolution powers are not enforceable in all jurisdictions where the group has operations, even though the group is highly centralised; an MPE strategy might be contemplated in this case and interconnections could be analysed as impediments to resolvability.

Depending on the resolution strategy, resolution authorities can ensure financial continuity in several ways and choose the appropriate resolution tool(s). Selection of resolution tool(s) needs a strong consideration of the level of internal financial interconnections and their implication.
Insurers benefit from a description of all the business processes supporting the provision of critical functions and their business lines and identify the linkages between the core perimeter of activities and the different organizational units. Such an assessment would be particularly expected to be part of the overall separability analysis by the resolution authority leading to the choice of the resolution approach and resolution tools. Such analysis would allow the resolution authority to reduce the necessary scope of the interconnection analysis in order to implement the preferred transfer tool(s).

- When transfer strategies are contemplated for specific insurance portfolios, the buyer needs to substitute the financial-related services that were provided to these portfolios and ensure financial continuity after separation. Necessary aspects include the following:
  - Necessity to ring-fence assets and instruments identified,
  - Necessity to determine the appropriate structure for purchase (Asset Management Company, full integration of portfolios within Balance Sheet) and to determine the appropriate arrangements and timing to set it up;
  - Necessity for the buyer to offer the financial support needed (e.g. liquidity, treasury, ALM),
  - Financial safeguards for counterparties (e.g. guarantees, collaterals, netting arrangements etc.) need being protected when separated. The ability to change financial contracts underlying any intragroup financial exposures; and
  - The ability to implement Transitional Service Agreement before substitution, to make sure some services are still ensured by the seller during a period of time.

- In case of a transfer of whole entity or group, financial continuity of the business should be directly ensured by the buyer. The sale process should be correctly managed so that the buyer makes sure it has the necessary financial resources to take over the business and ensure the appropriate financial continuity arrangements in a timely manner.

- In case of a run-off, financial continuity needs to be ensured up to the maturity of the instruments.
Box 3: Good practices for assessment of financial interconnectedness

Good practice 3: France

Assessment of IGTs in the French context of supervision, recovery plans and resolution plans.

**Supervision**

Insurance supervisors typically rely on reporting information required for insurance undertakings when performing assessment of IGTs.

From a reporting standpoint, EIOPA implementing technical standards (ITS) on quantitative reporting templates (QRT) provides that Intra-group transactions (IGTs) be reported regularly (in “S.36.” QRT), in accordance with Article 245 of the Solvency II Directive. Article 13 point 19 of the Solvency II Directive defines IGT as “any transaction by which an insurance or reinsurance undertaking relies, either directly or indirectly, on other undertakings within the same group...”. These transactions include stock and flows linked to equity, debt instrument, reinsurance, derivatives, guaranties and other off-balance sheet instruments, and cost sharing. Following EU Financial Conglomerate Directive, financial conglomerates also have to report IGTs in a specific existing template, while the overall reporting framework for EU conglomerates is being reinforced, as described above in the paper.

**Recovery plans**

French regulation provides that preventive recovery plans for insurers need to integrate a description of key interdependencies, both internally and externally to the insurance group at stake; this necessarily includes key IGTs.

The plan shall also include a separability assessment and examine in particular the unwinding of existing IGTs if the disposal of subsidiaries is part of the recovery options.

**Resolution plans**

It should also be noted that the drafting of resolution plans is to contain an analysis of interconnections, and in particular of IGTs. In particular, insurance undertakings that are part of a “bancassurance” conglomerate will need to provide specific information on the interconnectedness with regard to the rest of the group.

There is no specific requirement in the French law as to how IGTs must be assessed in resolution plans or in the resolution planning phase. However, ACPR as a resolution authority needs to assess whether some impediments to resolvability are existing in a given insurance undertaking, how they can be mitigated. If necessary, ACPR can enjoin the group to take actions in this regard.

Good practice 4: Review of interconnectedness in Germany

The review of group internal interconnectedness plays an important role in the regular college meetings. At least on an annual basis, the group wide supervisors present to the college of supervisors the most important group internal connections (primarily financial but not exclusively). On that basis, the college of supervisors discusses the group’s interconnectedness and forms its view on potential contagion risk within the group. Furthermore, in some cases the college of supervisors established working groups to further improve the analysis on interconnectedness and contagion risk. In addition, changes concerning group internal shared services are also presented and discussed during college meetings.

Recovery plans contain information on the sources of internal interconnectedness based on intra-group transactions and other financial interconnectedness, and on operational interconnectedness such as common Board members, concentration aspects, risks, services etc.
Recovery plans are also discussed within the Crisis Management Group (CMG) with a special focus on group internal service providers and their importance in case of a crisis. A key element concerns the assessment of the criticality of such services and the implications for recovery and resolution planning.

**Good practice 5: United States**

**Regulation of Affiliated Transactions**

For U.S. state insurance regulators, assessing a group’s interconnectedness for purposes of recovery and resolution begins with understanding and regulating affiliated intragroup transactions (IGTs). All insurance legal entity insurers that are part of an insurance holding company system are subject to the state’s authority over IGTs (by all states adoption of the NAIC’s Insurance Holding Company System Regulatory Act (Model 440) and the Insurance Holding Company System Model Regulation with Reporting Forms and Instructions (Model 450)). Additionally, all legal entity insurers are subject to accounting and valuation requirements (by all states requirement of their insurers to follow the NAIC Accounting Practices and Procedures Manual).

Risks being transferred from one affiliated entity to another affiliated entity vary depending on the service/transaction presented and therefore approval or disapproval is considered on an individual service/transaction basis. The impact of specific IGTs on policyholders is limited due to U.S. receivership laws that generally prevent the payment of such affiliated obligations during a receivership until 100% of the policyholder obligations are paid.

**State Insurance Regulator’s Review and Approval of IGTs**

Model 440 provides further detail on state insurance regulators’ authority over IGTs. The Act requires all such transactions to be submitted to the state regulator for approval or disapproval before being completed. A common practice is that the domestic states within the group consult with each other before approving such transactions together. The Act defines specific IGTs, within certain thresholds, that require prior approval. The Model 440 includes other requirements for IGTs, for example, that such transactions have terms that are fair and reasonable to the insurer and its policyholders.

The U.S. continues to assess and strengthen regulatory authority where needed and appropriate to supplement existing requirements. In 2021, the NAIC adopted amendments to Model 440 and Model 450 that are aimed to ensure the continuity of essential services and functions to an insurer in receivership by affiliated entities, including non-regulated entities and specifically for agreements with affiliated entities whose sole business purpose is to provide services to the insurance company. For example, one key amendment states the affiliated entity is subject to jurisdiction of receivership court in the event of the insurer’s receivership, and in certain circumstances the Commissioner may require the affiliate to agree to this in writing.

**Reporting**

The U.S. preapproval reporting requirement includes prior notice of such affiliated transactions (Form D Filing) on all such transactions discussed above. On an ongoing basis, a summary of the IGTs in place across the group is required in the Holding Company’s Annual Registration Statement. Additionally, reporting of IGT’s each insurance legal entity participates in is required in the Annual Statement Schedule Y Part 2 and the Notes to Financial Statements, as well as detail reported in schedules for debt and equity investments (Schedule D), derivatives (Schedule DB), other invested assets (Schedule BA) and reinsurance transactions (Schedule F/S).

**Supervisory Analysis**

The U.S. approach to Supervisory Analysis of groups is contained primarily in the Financial Analysis Handbook, which is required to be used as all states under the NAIC’s Accreditation Program and contains over 100 pages of group-wide supervision procedures and related explanation to be used by the lead-state. The resulting analysis is intended to provide both a quantitative and qualitative analysis of the group. Specific to interconnectedness, the supervisory review includes assessment of risks
related to material IGTs, financial condition of the ultimate controlling person, business segments, material entities in the group (insurance and non-insurance). Additional qualitative analysis is performed on the Own Risk and Solvency Assessment (ORSA) filing, enterprise risk (Form F) reporting and corporate governance disclosures. Additionally, in the US, exchange of information on material IGTs is commonly shared between domestic regulators and with other jurisdictions during supervisory colleges, further supporting the supervisor’s analysis of the group. Finally, the Group Capital Calculation (GCC) filing, expected to be filed beginning in 2022, will provide regulators with data for all entities directly or indirectly owned by the insurer’s ultimate controlling parent. Information provided in the GCC includes total assets, total revenue, and net income, and will help regulators better understand the group and the financial position of the entities in the group, including those groups with material cross support mechanisms. Depending on the nature of the transaction and the specific circumstances, these mechanisms may pose material risk. These may include corporate guarantees, capital maintenance agreements (regulatory or ratings based), letters of credit, intercompany indebtedness, bond repurchase agreements, securities lending or other agreements or transactions that create a financial interdependence or link between entities in the group.

**NAIC Liquidity Stress Testing**

The U.S. implemented a Liquidity Risk Stress Testing requirement to enhance its overall assessment of life insurers’ liquidity risk. Specific stress scenarios and some of the related economic assumptions are provided as regulatory requirements and the insurers run the stress tests at the legal entity level and roll up the results for a group submission. The company’s own internal worst case liquidity stress scenario is also required, and all scenarios are to use 30 day, 90 day and 1 year time horizons. The key interconnectedness component is the disclosure of proposed asset sales the insurer would contemplate to satisfy any stressed cash shortfalls. Potential invested asset sales give U.S. supervisors greater insight into possible risks to the capital markets and financial system as a whole as part of their macroprudential supervision.

**CMG Recovery Planning**

The NAIC reports one state's CMG for a large insurer focuses on a framework for recovery planning through Capital and Liquidity Contingency Planning & Enterprise Stress Testing. The structure of the discussion/review is:

(i) Governance - Defines roles and responsibilities for the Board of Directors, its committees and senior management committees.

(ii) Early Warning Indicators - Establishes business and market indicators that could signal the onset of a capital or liquidity stress event. Sets thresholds by indicator, and when breached, initiates actions to respond to a potential crisis.

(iii) Escalation - Establishes escalation of stressed events to relevant parties based on the magnitude of change of the Early Warning Indicators.

(iv) Management Actions - Describes contingent capital and/or liquidity sources available to remedy a capital and/or liquidity stress event.

(v) Communication Planning - Includes guidelines for managing communications with internal and external parties.

(vi) Contingency Planning Testing - Includes the types of tests used to test the reliability and effectiveness of the Contingency Plan (e.g., operational tests, process evaluations, table-top exercises).

The state also focuses on Operational Crisis Management by reviewing Governance/Approach, Response Preparation/Planning, Dependencies, Testing/Exercises, and Resiliency and reviews significant intragroup transactions entered into during the year since the last supervisory college/CMG.
2. Operational interconnectedness

Intra-group operational linkages are crucial for operational continuity during and after resolution. Most insurance companies are part of a group. They often receive operational services from other entities in the group, e.g. from the holding company, or entities, dedicated to specific operational services, such as human resources, information and communications technology (ICT), etc. The next sections contain good practices on how to map and assess these linkages for the purpose of resolution. They build upon previous FSB Guidance on Arrangements to Support Operational Continuity in Resolution, focusing on insurers.

2.1. Mapping

The objective of mapping of operational interconnectedness is to identify critical (shared) services provided by group companies to the insurance entities. Criticality means the extent to which the running of the insurance business in general, and the continuity of coverage and payment under insurance policies in particular, depend on the services provided by operational entities within the group. It is different from the identification of critical functions of insurance companies (but the two concepts may be intrinsically linked).

Mapping of operational interconnectedness starts with a clear organizational chart of an insurance group. This chart includes all entities and their ownership relationships. They are usually public and can often be found on the website of the insurance groups. In most cases though, this chart does not make clear the exact operational services they provide to the insurers in the group. For instance, holding companies often provide several operational services. More detailed information is therefore needed.

Regular supervisory reporting of outsourcing gives a more detailed insight in operational intragroup linkages. Outsourcing includes both external and intra-group outsourcing of services. A good practice is given by the requirement for insurers in Singapore to maintain a register of all outsourcing arrangements, including nature, materiality and substitutability of these arrangements (Box 4). Also, European insurers are required to include in the Solvency II Regular Supervisory Report information regarding outsourcing of critical or important operational functions or activities.

In addition Recovery plans give more insight. These plans, produced by the insurer or insurance group and reviewed by the supervisory authority, will often include the description of the insurer's operational business structure, legal structure, entities covered by the plan, functions and/or

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17 FSB (2016), Developing Effective Resolution Strategies and Plans for Systemically Important Insurers, June, section 3.3.
18 Article 308 of the European Commission Delegated regulation (2015/3, 10 October 2014.)
services that are significant for the continuation of business, and key dependencies or interdependencies.\textsuperscript{19}

Mapping should include both quantitative and qualitative information, in order to identify the critical services provided by other group entities. Qualitative information at least encompasses (1) names of legal entities involved, i.e. the entities within the group providing and receiving the service, and (2) type of operational services (ICT, asset management, risk management, HR, etc.). The names are ideally accompanied by a unique code, such as the Legal Entity Identifier (LEI). Quantitative information should allow resolution authorities to assess the criticality and materiality of the operational interconnectedness. This could be (1) the annual fees paid for the services, (2) cost of the outsourcing as a proportion of total operating costs of the insurer, and/or (3) the portion of the insurance portfolio of the insurer, which is dependent on the operational services. The assessment on the criticality and materiality can also be asked directly to the insurer as a self-assessment.

In addition, information on the contracts governing the operational interconnectedness helps to understand what happens to the service provision around resolution. These internal contracts are sometimes also referred to as Service Level Agreements (SLAs). The information, useful for resolution purposes, includes the maturity of the contract, the fee payment schedule, the existence of termination clauses, and the applicable law. This information allows resolution authorities to assess the probability of a service disruption around resolution, and to assess whether it is necessary and feasible to change the contract or SLA.

Finally, assessment by the insurer on the substitutability of the operational services help to understand potential consequences of service disruptions around resolution. The insurer probably knows best to what extent and how quickly an operational service can be replaced by another provider, or by the insurer itself. The register in Singapore also contains this self-assessment. Good practice 7 in Box 4 describes the current template used by the resolution authority in the Netherlands. This template aims to collect information on operational interconnectedness from Dutch insurers for the purpose of resolution planning.

\textsuperscript{19} IAIS (2019), \textit{Application Paper on Recovery Planning}, November
Box 4: Good practices for mapping of operational interconnectedness

Good practice 6: A register of outsourcing arrangements in Singapore

MAS’ Guidelines on Outsourcing requires insurers to maintain a register of all outsourcing arrangements, and ensure that the register is readily accessible for review by the insurers’ board and senior management. This register is expected to be updated promptly by insurers and is part of the oversight and governance reviews undertaken by the board and senior management. Information maintained in the register by insurers includes:

- the country/location of the service providers;
- nature of outsourcing arrangements (i.e. type of service provided and whether this is an intra-group or third party provider);
- materiality and substitutability assessment of the outsourcing arrangements;
- whether there are any identified alternate service providers for each outsourcing arrangement; and
- whether the arrangements support business operations that are time critical.

The template for the register is included as an Annex to the Guidelines. MAS requires insurers to submit this register at least annually or upon request.

While the primary purpose of the outsourcing register is to identify material outsourcing arrangements and any concentration of service providers, it is also useful for identifying critical shared services for the purposes of resolution planning. MAS is a host supervisor to many foreign insurance groups which have established subsidiaries and branches in Singapore, and it is common for the Singapore operations to outsource certain functions to the head office, parent company or other related entities within the group.

Functions commonly outsourced to other related entities within the group are investment management, underwriting, claims management and financial reporting. Since a key element of resolution planning is for insurers/insurance groups to maintain the requisite information and systems needed to facilitate such planning, the maintenance of an outsourcing register would facilitate the assessment of operational inter-dependencies amongst entities, including business units within the group, and enable the identification and mitigation of any potential impediments to effective resolution. Such dependencies may include intra-group IT services, asset management services or custodian arrangements. From the register, MAS is also able to identify the key outsourced services and functions that are material and critical for preserving the critical functions of the insurer, and take steps to ensure that these are taken into account as part of resolution planning.

Good practice 7: Mapping intragroup operational interlinkages - by Bank of England

The below mapping diagram is a stylised example of the types of intragroup services that could be found in an insurance group, and shows the service relationships between Material Business Units (MBU), or between a MBU and the Group Holding Company (GHC). The examples shown have been taken from multiple insurance groups to provide an illustrative and non-exhaustive example, and does not reflect a real insurer. This mapping exercise is conducted by the insurer and provided to the group-wide supervisor, and can be updated on a regular (e.g. annual or bi-annual) or on an ad hoc basis (e.g. when there have been material changes to intragroup services within the group, or there have been structural changes to the organisation).

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In Annex 2 of the MAS Guidelines on Outsourcing, factors that insurers should consider when assessing the materiality of an outsourcing arrangement include: (i) potential impact of the outsourcing on earnings, solvency, liquidity, funding and capital, and risk profile; (ii) impact on the insurer’s reputation and brand value, and ability to achieve its business objectives, strategy and plans, should the service provider fail to perform the service or encounter a breach of confidentiality or security; and (iii) impact on the insurer’s customers, should the service provider fail to perform the service or encounter a breach of confidentiality or security.
Table A: Intra-group services relationships

<table>
<thead>
<tr>
<th>No.</th>
<th>From</th>
<th>To</th>
<th>Two-way relationship? (Y/N)</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Subsidiary 7</td>
<td>Subsidiary 11</td>
<td>N</td>
<td>Provides IT infrastructure and support services</td>
</tr>
<tr>
<td>2</td>
<td>Subsidiary 8</td>
<td>Subsidiary 9</td>
<td>N</td>
<td>Advice and support on taxation</td>
</tr>
<tr>
<td>3</td>
<td>Subsidiary 11</td>
<td>Group Holding Company</td>
<td>N</td>
<td>Subsidiary 11 provides the group treasury function</td>
</tr>
<tr>
<td>4</td>
<td>Subsidiary 2</td>
<td>Subsidiary 7</td>
<td>Y</td>
<td>Provides IT infrastructure and support services</td>
</tr>
<tr>
<td>5</td>
<td>Subsidiary 4</td>
<td>Subsidiary 8</td>
<td>Y</td>
<td>Provides HR support</td>
</tr>
<tr>
<td>6</td>
<td>Subsidiary 7</td>
<td>Subsidiary 12</td>
<td>N</td>
<td>Provides IT infrastructure and support services</td>
</tr>
<tr>
<td>7</td>
<td>Subsidiary 7</td>
<td>Subsidiary 3</td>
<td>N</td>
<td>Provides IT infrastructure and support services</td>
</tr>
<tr>
<td>8</td>
<td>Subsidiary 7</td>
<td>Subsidiary 1</td>
<td>N</td>
<td>Provides advice on risk and investment strategy</td>
</tr>
<tr>
<td>9</td>
<td>Subsidiary 14</td>
<td>Subsidiary 6</td>
<td>N</td>
<td>Day to day operations</td>
</tr>
<tr>
<td>10</td>
<td>Subsidiary 6</td>
<td>Subsidiary 13</td>
<td>Y</td>
<td>Secondment of staff for management activities</td>
</tr>
<tr>
<td>11</td>
<td>Subsidiary 14</td>
<td>Group Holding Company</td>
<td>N</td>
<td>Investment management services</td>
</tr>
<tr>
<td>12</td>
<td>Subsidiary 11</td>
<td>Subsidiary 6</td>
<td>N</td>
<td>Secondment of staff</td>
</tr>
<tr>
<td>13</td>
<td>Subsidiary 12</td>
<td>Subsidiary 6</td>
<td>N</td>
<td>Investment management services</td>
</tr>
</tbody>
</table>
Good practice 8: Reporting intragroup critical services for the purpose of resolution planning in The Netherlands

On 1 January 2019, DNB assumed responsibility for the resolution of Dutch insurers and insurance groups. To this end, DNB prepares resolution plans for all insurers and groups which would require resolution in the event of failure to safeguard the public interest.

DNB needs certain information in order to draw up resolution plans. This information primarily comes from public sources (e.g. annual reports) and the sources DNB already has access to by virtue of its role as a supervisory authority (e.g. Solvency II reporting templates). In addition DNB collects information through this Resolution Report (ReRap).

The aim of the ReRap is to understand the institution from the perspective of a potential resolution. The ReRap consists of the following five sections: (1) group structure; (2) public interest; (3) Interdependence; (4) company balance sheet; and (5) valuation.

The third section refers to links and relationships between different entities within the group (internal interdependencies) and significant ties with external parties (external interdependencies). This interdependence could be of a financial or operational nature. This information should make clear which internal and external parties an insurer is dependent on for it to continue its operations.

For the operational services/relationships, insurers are required to list the 50 largest contracts (in terms of annual fee). The aim is to determine whether the contracts are critical to the daily operations of the insurers. Based on FSB guidance, templates have been designed to collect the information of these contracts, which is from a resolution perspective the most relevant. The reporting template fields are:

- Type of service (e.g. accounting; cash handling; human resources support; information technology; legal services and compliance functions; real estate and facility provision or management and associated facilities; risk management and valuation; trading/asset management; transaction processing; including legal transactional issues; in particular anti-money laundering; treasury-related services; other.)
In addition to filling in the templates, insurers are required to provide an explanatory memorandum. This memorandum must address the following topics:

- A description of the internal dependencies of group services (centralised or otherwise). Data can be included to establish the degree of dependence where possible.
- A description of the internal governance relationships between the material group entities. This may include employees on the payroll of another entity than the entity for which they factually work; board members of the group company drawn from various subsidiaries; etc.

2.2. Assessment

Operational interconnectedness can impact resolution in three main ways. First, it may cause contagion within groups and thereby determine the crisis/resolution scenario. Second, it may help or inhibit operational continuity during resolution, for example if contracts are terminated. Third, it may help or inhibit resolution strategies.

Assessment of intra-group operational services follows from the following questions:

1. Which operational services, provided by group entities are critical?
2. Which entities are part of the perimeter of resolution?
3. How can operational continuity during and after resolution be ensured?

Criticality of intra-group operational services depends on two key criteria:

- **Impact of service disruption**: to what extent does disruption before, during and after resolution affect the insurance undertaking? Operational services related to the management of the insurance policies and the assets covering these policies are from
a resolution perspective most relevant, as the objective of resolution is policyholder protection and financial stability. Examples include: ICT, administrative services, asset management, risk management and actuarial services. Note that the criticality also depends on the status the insurance undertaking: for instance, for a company that is in run-off, the disruption of sales will not be significant.

- **Substitutability of these operational services**: In case the services can relatively easily be substituted by alternative service providers, or insurers that take over the insurance portfolio in resolution, the criticality is lower. For instance, asset management is a service which is relatively widely available in financial markets, and some insurers have this operational service in-house themselves. In contrast, ICT often is tailor-made for the insurer, and insurance policies are sometimes run on legacy systems, which may complicate substitutability. Note there is a time and cost dimension to this assessment. In most cases there will be substitutes, but in some cases it would take time and be costly to substitute the services.

In case disruption of operational services would severely impact the insurer, and these services are deemed hard to substitute, they can be identified as critical. Critical operational services require specific attention in resolution planning.

### Table 1: Example assessment of criticality of operational services

<table>
<thead>
<tr>
<th></th>
<th>Low Impact</th>
<th>Medium Impact</th>
<th>High Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Substitutability</strong></td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Med. Substitutability</strong></td>
<td>No</td>
<td>Yes/No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Low Substitutability</strong></td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Resolution strategies can apply different perimeters, depending on the point of entry. A single point of entry includes only the failing insurer, while a multiple point of entry includes several entities of an insurance group, including the failing insurer, the holding company and/or operational entities.

In case of a multiple point of entry resolution, the critical operational services can be brought within the scope of application of resolution powers. This enables the resolution authority to have direct control of this entity, thereby ensuring continuity of services.

In case of a single point of entry resolution, the critical operational services are not within the perimeter of resolution. The contract/SLA governing the service provision then becomes important to assess. In particular an assessment on:

- the contractual provisions around termination of the services;
- the existence and content of any resolution clauses; and
- the enforceability of the resolution power to change the contract.

The assessment of criticality and of the ability to ensure operational continuity may also lead to a multiple point of entry approach. This however depends on the possibilities given by the
resolution regime. In some jurisdictions, the possibilities of a resolution with a multiple point of entry approach may be restricted.

Depending on the resolution strategy, resolution authorities can ensure operational continuity in several ways:

- In case of transfer of an insurance portfolio, the contract/SLA with the service provider could be transferred as well to the buyer. This would ensure continuity and would give time to the buyer to substitute the operational service. The contract/SLA must be sufficiently flexible and the resolution authority must have sufficient powers to change the contract/SLA in order to transfer the contract/SLA.

- In case of transfer of the entire failing insurance company the contract/SLA could be continued. The intra-group operational service arrangement then becomes an outsourcing arrangement for the buyer.

- In case of a run-off within the same group, the contract could be continued.

In case operational interconnectedness inhibits effective resolution, authorities may require the insurer to remove related impediments. On the one hand the operational interconnectedness assessment can determine the preferred point of entry and resolution strategy, as described above. On the other hand, authorities may choose the preferred point of entry and resolution strategy first and identify any operational interconnectedness that inhibits this perimeter and strategy as an impediment to resolution. They may require the insurer to lift this impediment (e.g., changing contracts or reducing interconnectedness), considering also potential costs imposed to the insurer as a going concern. In this way operational interconnectedness, point of entry and resolution strategy, and the identification of potential impediments to resolution, constitute three interdependent parts of the resolution plan (Figure 1).

**Figure 1: Interdependencies in the Interconnectedness assessment**

![Operational interconnectedness](image)

The assessment should include any operational services provided to non-failing insurers in the group. In some cases, the entity providing operational services to a failing insurer, also provides these services to another insurance undertaking within the same group. The resolution strategy must ensure continuity of services to both insurers. In some cases, the operational entity needs to be split into a part that services the failing insurer and another part that services the other insurer(s). In resolution plans resolution authorities may assess whether the operational services can actually be split. If not, preventive measures may need to be taken.
Conclusion

This paper offers readers a range of practices from several jurisdictions for mapping and assessing two types of internal interconnectedness: financial and operational. The mapping and assessment exercise can be resource intensive, so proportionality to the size and complexity of the insurance group being analysed is important.

Better understanding of interconnectedness as a result of the mapping exercise leads to enhanced resolution preparedness. Assessing interconnectedness from the perspective of the resolution strategy can lead to concrete ways to improve resolvability of insurers. Other benefits to mapping and assessment of interconnectedness include improved understanding of critical functions and of critical shared services.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALM</td>
<td>Asset Liability Management</td>
</tr>
<tr>
<td>CMG</td>
<td>Crisis Management Group</td>
</tr>
<tr>
<td>G-SII</td>
<td>Global Systemically Important Insurer</td>
</tr>
<tr>
<td>HR</td>
<td>Human Resources</td>
</tr>
<tr>
<td>iCBCM</td>
<td>FSB Cross-Border Crisis Management Group for insurance</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communications Technology</td>
</tr>
<tr>
<td>IGT</td>
<td>Intragroup Transaction</td>
</tr>
<tr>
<td>KA</td>
<td>Key Attribute</td>
</tr>
<tr>
<td>LEI</td>
<td>Legal Entity Identifier</td>
</tr>
<tr>
<td>M&amp;A</td>
<td>Merger and Acquisition</td>
</tr>
<tr>
<td>MPE</td>
<td>Multiple Point of Entry (resolution strategy)</td>
</tr>
<tr>
<td>SLA</td>
<td>Service Level Agreement</td>
</tr>
<tr>
<td>SPE</td>
<td>Single Point of Entry (resolution strategy)</td>
</tr>
</tbody>
</table>