



IAIS

INTERNATIONAL ASSOCIATION OF
INSURANCE SUPERVISORS

Public

Application Paper on Liquidity Risk Management

29 June 2020

About the IAIS

The International Association of Insurance Supervisors (IAIS) is a voluntary membership organisation of insurance supervisors and regulators from more than 200 jurisdictions. The mission of the IAIS is to promote effective and globally consistent supervision of the insurance industry in order to develop and maintain fair, safe and stable insurance markets for the benefit and protection of policyholders and to contribute to global financial stability.

Established in 1994, the IAIS is the international standard setting body responsible for developing principles, standards and other supporting material for the supervision of the insurance sector and assisting in their implementation. The IAIS also provides a forum for Members to share their experiences and understanding of insurance supervision and insurance markets.

The IAIS coordinates its work with other international financial policymakers and associations of supervisors or regulators, and assists in shaping financial systems globally. In particular, the IAIS is a member of the Financial Stability Board (FSB), member of the Standards Advisory Council of the International Accounting Standards Board (IASB), and partner in the Access to Insurance Initiative (A2ii). In recognition of its collective expertise, the IAIS also is routinely called upon by the G20 leaders and other international standard setting bodies for input on insurance issues as well as on issues related to the regulation and supervision of the global financial sector.

Application Papers provide additional material related to one or more ICPs and/or ComFrame, including actual examples or case studies that help practical application of supervisory material. Application Papers could be provided in circumstances where the practical application of principles and standards may vary or where their interpretation and implementation may pose challenges. Application Papers can provide further advice, illustrations, recommendations or examples of good practice to supervisors on how supervisory material may be implemented.

International Association of Insurance Supervisors
c/o Bank for International Settlements
CH-4002 Basel
Switzerland
Tel: +41 61 280 8090 Fax: +41 61 280 9151
www.iaisweb.org

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

© International Association of Insurance Supervisors (IAIS), 2020.

All rights reserved. Brief excerpts may be reproduced or translated provided the source is stated.

Contents

Acronyms.....	4
1 Introduction.....	5
1.1 Rationale.....	5
1.2 Terms.....	6
1.3 Scope.....	6
1.4 Proportionality.....	7
1.5 Structure.....	7
2 Governance.....	7
3 Liquidity risk identification.....	8
3.1 Exposure to insurable events.....	8
3.2 Policyholder behaviour.....	9
3.3 Contingent or off-balance sheet exposures.....	9
3.4 The impact of a deterioration in the insurer’s financial condition or credit rating.....	9
3.5 The ability to transfer liquidity across entities, countries and portfolios.....	9
3.6 Foreign exchange convertibility and access to foreign exchange markets.....	10
3.7 The reduction in secured and unsecured wholesale funding.....	10
3.8 The correlation and concentration of funding sources.....	10
4 Liquidity stress testing.....	10
5 Meeting liquidity shortfalls in stress.....	12
5.1 Characteristics of highly liquid assets.....	12
5.2 Other considerations.....	16
6 Contingency funding plan.....	17
6.1 Key elements of a contingency funding plan.....	17
7 Liquidity risk management report.....	18
7.1 Risk appetite and risk limits.....	19
7.2 Strategies, policies and processes for liquidity risk management.....	20
7.3 Analysis of the insurer’s liquidity profile.....	21
8 Supervisory review and reporting.....	22
8.1 Supervisory review.....	22
8.2 Reporting to the supervisor.....	24

Acronyms

ALM	Asset-Liability Management
BOLI	Bank-Owned Life Insurance
COLI	Corporate-Owned Life Insurance
ComFrame	Common Framework for the Supervision of IAIGs
ERM	Enterprise Risk Management
FSB	Financial Stability Board
GICs	Guaranteed Investment Contracts
IAIGs	Internationally Active Insurance Groups
IAIS	International Association of Insurance Supervisors
ICP	Insurance Core Principle
ORSA	Own Risk and Solvency Assessment
SFT	Securities Financing Transactions
SPV	Special Purpose Vehicle

1 Introduction

1. This Application Paper on Liquidity Risk Management provides guidance on the supervisory material related to liquidity risk management in the Insurance Core Principles (ICPs) and the Common Framework for the Supervision of Internationally Active Insurance Groups (ComFrame). In particular, it is related to the material in ICP Standards 16.8 and 16.9 (ICP 16 Enterprise Risk Management (ERM) for Solvency Purposes) and ComFrame 16.9.a – 16.9.d. As part of the holistic framework for systemic risk in the insurance sector, the IAIS enhanced the ERM requirements in ICP 16 to more explicitly address liquidity risk.¹

2. The Paper does not establish standards or expectations for the implementation of a liquidity risk management framework, but instead provides additional detail on particular aspects of the Supervisory Material relating to liquidity risk to assist implementation, and also provides examples of good practice. It should, however, not be considered an exhaustive guide to liquidity risk management.

3. This Paper provides guidance and examples on:

- considerations on applying liquidity risk management measures in a proportionate way and the ways that supervisors may tailor requirements.
- detailed components of the four elements for “more detailed risk management processes” contained in ICP Standard 16.9:
 - liquidity stress testing;
 - maintenance of a portfolio of unencumbered highly liquid assets in appropriate locations;
 - a contingency funding plan; and
 - the submission of a liquidity risk management report to the supervisor.
- integration of liquidity risk into insurers’ ERM frameworks as described in ICP Standard 16.8, including recommendations for governance.

1.1 Rationale

4. In the normal course of business, insurers typically rely on premiums, income from investment and other sources for liquidity. Nevertheless, they need to maintain adequate liquidity to fulfil expected and unexpected payment obligations and funding needs. Liquidity risk management is essential to the proper operation of the insurer, the protection of policyholders and financial stability.

5. Past experience demonstrates that even solvent insurers may experience material financial distress, including failure, if they do not manage their liquidity prudently. Although many of an insurer’s liabilities are long-term in nature or contingent on the occurrence of an event, certain activities may create significant and unanticipated demands for liquidity. When confronted with stress events, insurers with insufficient liquidity may be forced to take remedial actions that can amplify or accelerate stresses through the financial system.

6. Liquidity fundamentally differs from capital: while both are essential to remaining a going concern, liquidity has a “real time” dimension that capital does not. Insufficient liquidity can cause sudden distress and/or default in insurers that are otherwise well-capitalised. As a

¹ Next to liquidity risk, enhanced requirements targeted at macroeconomic exposure and counterparty exposure were also introduced. These are not within the scope of this Application Paper.

result, the insurer's capital management framework may be inappropriate or inapplicable to liquidity risk management.

7. Liquidity risk is very much company and scenario specific. Supervisory measures for liquidity risk management are intended to help the insurer with its overall risk management. In addition to helping to protect the insurer's solvency and soundness, integrated liquidity risk management can inform strategic initiatives, product design and pricing, investment allocation and operational resilience. Additionally, the supervisory measures may provide the supervisor with a view on vulnerabilities that may cause funding shortfalls in stress situations. Having such a view may assist the supervisor in identifying common exposures and vulnerabilities across the insurance sector and in coordination with other financial sector supervisors.

1.2 Terms

8. In this Application Paper, all terms have the same meaning as set out in the IAIS Glossary and the Introduction to the ICPs.

1.3 Scope

9. As stated in ICP Standard 16.8 "the supervisor requires the insurer's ERM framework to address liquidity risk and to contain strategies, policies and processes to maintain adequate liquidity to meet its liabilities as they fall due in normal and stressed conditions". This Paper describes a particular set of approaches for managing liquidity risk, but the concepts may be relevant to the supervisors of all insurers and reinsurers.

10. This Paper is intended to be particularly useful for supervisors that require more detailed liquidity risk management processes. The processes identified in ICP Standard 16.9 are expected to be applied to Internationally Active Insurance Groups (IAIGs) through the application of ComFrame Standards 16.9.a – 16.9.d, and other insurers as necessary, based on the nature, scale and complexity of the activities that lead to increased liquidity risk exposures and risk amplification effects related to their size.

11. Liquidity risk can manifest when there is an imbalance between the insurer's liquidity sources and liquidity needs. Certain activities can increase insurers' exposure to liquidity risk by generating unexpected liquidity needs and, thus, may warrant more robust risk management, including the application of the policy measures described in ICP Standard 16.9. Examples of such activities may include, but are not limited to:

- **Derivatives:** Many derivatives contracts require collateral or a margin to be posted for mark-to-market declines in the value of the contract. These derivatives, used to hedge market risk arising from investments and liabilities, transform capital risk into liquidity risk. A significant macroeconomic shock against hedges, while potentially improving an insurer's capital position, could trigger calls for additional margins or collateral, forcing insurers to raise liquidity;
- **Securities lending transactions:** If funds received are reinvested in illiquid assets, sudden recalls of these funds could force the insurer to sell assets. In a stressed market, these sales could impact the insurer's creditworthiness, triggering more collateral demands and leading to a price spiral as the lender sells assets to meet collateral needs; and
- **Backing liquid liabilities with illiquid assets:** Some products offered by insurers contain provisions whereby a policyholder can withdraw cash from the policy with little notice or penalty. When insurers do not adequately match such liabilities with sufficiently

liquid assets, this may lead to a liquidity shortage in certain circumstances and ultimately trigger fire sales.

Liquidity risk drivers are discussed in more detail in Section 3.

12. When not properly managed, these activities can cause the insurer's failure and, in certain circumstances, contribute to systemic risk.

13. While the tools discussed in this Paper are primarily related to an insurer's own ERM, there is also an interlinkage with the role of a supervisor in assessing trends and identifying vulnerabilities in the insurance sector (see ICP 24 Macroprudential Supervision). While aspects such as interconnectedness within the financial sector and counterparty concentration may be briefly touched upon in this Paper, these will be discussed in the forthcoming Application Paper on Macroprudential Supervision.

1.4 Proportionality

14. This Application Paper should be read in the context of the proportionality principle, which acknowledges supervisors' flexibility to tailor their application of supervisory requirements and supervision to achieve the outcomes stipulated in the Principle Statements and Standards, as described in the Introduction to ICPs and ComFrame. The advice, illustrations, recommendations or examples of good practice in this Paper do not supersede this overarching proportionality principle.

15. More specifically, the supervisor may, as per ICP 16.9.5 and ComFrame 16.9.b.2, increase or decrease the intensity of the requirements set out in ICP 16.9, for example by varying the frequency, scope and granularity of liquidity stress testing, the proportion and quantity of various types of assets that the insurer may consider as highly liquid or the form and level of detail in the contingency funding plan and liquidity risk management report. The supervisor may also decide on varying the form and level of detail in updates to the contingency funding plan and liquidity risk management report by taking into consideration subsequent material changes since the initial assessment.

1.5 Structure

16. Some common principles of risk management are risk identification, quantification or measurement of those risks, management and mitigation of those risks and contingency planning. This is supplemented by reporting to the supervisor. The remainder of this Application Paper is structured along these lines:

- Section 2: Governance
- Section 3: Liquidity risk identification
- Section 4: Liquidity stress testing
- Section 5: Meeting liquidity shortfalls in stress
- Section 6: Contingency funding plan
- Section 7: Liquidity risk management report
- Section 8: Supervisory review and reporting

2 Governance

17. In the ongoing management of its business, an insurer relies on the availability of capital and liquidity. This demonstrates a need for the insurer to have an appropriate system of governance for liquidity risk in place. A proper liquidity risk management governance

framework supports the identification, assessment, management, reporting and planning of risk-mitigating decision making.

18. The insurer's risk appetite statement should be approved by the insurer's Board, which should be responsible for its effectiveness on an on-going basis. The insurer should also periodically review its liquidity risk practices and performance to determine if it is operating within its stated risk appetite.

19. The insurer's Senior Management is responsible for applying the insurer's risk appetite in pursuit of its strategic objectives. In doing so, Senior Management is responsible for several key liquidity risk management functions. Most importantly, Senior Management is responsible for integrating the insurer's risk appetite into day-to-day operations. Senior Management should also review the insurer's stress testing methodology and results. Senior Management should periodically report the insurer's current liquidity profile to the Board or the relevant Board Committee, specifically highlighting any vulnerabilities identified and proposing appropriate remedial action. Where the insurer has or is likely to breach its liquidity risk appetite, consistent with ICP Guidance 8.1.12, Senior Management should immediately inform the Board.

20. In the case of groups, the group Senior Management should receive clear and timely information from material legal entities on the entities' liquidity position and emerging liquidity stress events. The group's Senior Management should report periodically to the group's Board or the relevant Board Committee on the group's current liquidity risk profile. Where appropriate, reporting on all material legal entities can suffice.

21. The insurer should establish and maintain an appropriate process for monitoring liquidity. This should include a process for management reporting which provides clear, concise, timely and accurate liquidity risk reports to control functions within the insurer. Reports on liquidity risk should be provided on a regular basis to the insurer's Board or to the relevant Board Committee, Senior Management and other appropriate personnel. Reports to the insurer's Board or to the relevant Board Committee may be less detailed and less frequent than reports to Senior Management with responsibility for managing liquidity risk.

3 Liquidity risk identification

22. The insurer's liquidity risks may be influenced by certain factors including: insurable events, policyholder behaviour, funding structure, transferability of assets and liquidity impairments on capital markets. In addition to the following elements, severe stress scenarios should consider potential correlated impairments to capital markets that may further hinder an insurer's ability to manage a liquidity event. The following liquidity risk drivers may be considered when designing and assessing stresses:

3.1 Exposure to insurable events

23. This may include considerations of the nature, frequency and severity of exposures to insurable events, including catastrophic events or material legal decisions that may occur within the relevant time horizon. The insurer should consider its dependence on reinsurance and the possibility that a material portion could be uncollectible or not funded in a timely manner, even if it is ultimately collectible.

3.2 Policyholder behaviour

24. This includes an assessment of the possible withdrawals from different product types, taking into account features such as guarantees, surrender penalties, potential tax implications, maturity dates, interest rate sensitivity, product purposes, customer type and borrowing costs (in case of policy loans). Stresses should also assess potential reductions in regular premium payments, non-renewals and declines in new business and their impact on net cash flows.

3.3 Contingent or off-balance sheet exposures

25. The insurer should include an assessment of derivative cash flows and collateral requirements caused by market changes, maturity, exercise of options, margin or collateral calls, changes in the value of posted collateral and additional costs to rebalancing portfolios. The insurer should also consider additional collateral needs that could arise from inwards or accepted reinsurance contracts in-force and any other potentially material liquidity needs arising from off-balance sheet commitments, contracts or facilities.

3.4 The impact of a deterioration in the insurer's financial condition or credit rating

26. The insurer should consider all types of outflows and collateral requirements resulting from its own credit downgrades of varying magnitude. This should include considerations on the types, quantity and timing of potential collateral and margin requirements. This analysis should encompass retail and institutional policyholders as well as capital markets and reinsurance counterparties.

3.5 The ability to transfer liquidity across entities, countries and portfolios

27. The insurer should assess the transferability of intragroup and intra-entity liquidity.² This should include considerations of existing legal, regulatory and operational limitations to transfers of liquidity and unencumbered assets between entities, business lines and countries. The insurer should note that during periods of market stress, liquidity might not be freely transferable between and within group entities, or across national borders and the potential for affiliates to default on intragroup obligations. A prudent assumption may be that, under stress, a part or the entire liquidity may become non-transferrable, so it is expected that the insurer will demonstrate that its approach to transferability is realistic.

28. As part of its stress testing, where material, the insurer should appropriately address legally or operationally ring-fenced assets. Such assets could include legally insulated separate accounts, closed blocks³, with-profits funds or matching adjustment portfolios. These blocks of assets, therefore, should only be included as cash flow sources to back cash flow needs arising from these same accounts. The insurer should also detail how assets in these blocks may affect the insurer's balance sheet through guarantees, hedging programmes or other regulatory requirements to replace or maintain assets.

² Assets may not be fungible within legal entities due to reasons such as those discussed in paragraph 46 and regulations regarding branch assets. See IAIS, Issues Paper on Supervision of Cross-Border Operations Through Branches (2013) at Section 2.2.

³ Within the context of this Application Paper, closed blocks refer to discrete pools of assets that are set aside to support the dividend expectations of participating policyholders from the periods prior to demutualisation, as well as anticipated policy benefits. Typically, changes of their values would be largely offset by future changes in the dividend rates on these participating policies.

3.6 Foreign exchange convertibility and access to foreign exchange markets

29. Where appropriate, the insurer should assess liquidity needs by individual currency to support an assessment of how shortfalls can be funded in a stressed market with impaired access to foreign exchange markets and loss of convertibility.

3.7 The reduction in secured and unsecured wholesale funding

30. The insurer should identify any sources of wholesale funding⁴ and assess how they would behave under stressed conditions. This should include the risk of shortening tenors, for example if the funding provider has call options, or refusal to roll over or extend the maturity of funding. A prudent assumption is that, for the length of the stress horizon, funding providers will be unable or unwilling to provide new unsecured borrowings or roll over or extend the maturity of existing funding. Wholesale funding that provides the counterparty with optionality, of acceleration in particular, should be noted and elaborated on.

3.8 The correlation and concentration of funding sources

31. The insurer should consider the instrument type, markets, currency and counterparty, including groups of related counterparties. This assessment should analyse the effectiveness of diversification across the insurer's chosen sources of funding.

4 Liquidity stress testing

32. Insurers should have a sound understanding of the magnitude of the liquidity risk to which it is exposed – so stress testing is an important part of liquidity risk management.

33. Using the sources of liquidity risk described in Section 3, or any other sources that may be relevant, an insurer's stress test should include an appropriate range of severe, but plausible scenarios, covering short-term and protracted macroeconomic, sector-wide and idiosyncratic events that appropriately reflect the distinctive features of its business. Depending on its business model and activities, which may contribute to larger or less predictable liquidity needs, an insurer may be vulnerable to different liquidity stresses than other insurers. Stress scenarios should be chosen to reveal potential vulnerabilities in the insurer's liquidity profile. In this way, the chosen stresses should help management to identify material risks to the insurer. The scenarios and model parameterisation should not be limited to historical events, distributions and correlations, but should also be forward-looking.

34. Through its stress testing, the insurer should assess the impact of its chosen scenarios on cash inflows and outflows and liquidity resources, both at a group level and for all material legal entities. Stressed cash flows should be produced at a level that allows comparison to baseline results, both at a group level, where applicable, and for all material legal entities. For material legal entities that are part of a group, this includes, where appropriate, locally developed stresses that reflect local business vulnerabilities and market conditions. Where appropriate, the supervisor may accommodate stress testing only on material legal entities provided that the head of the insurance group is able to demonstrate reasonable considerations of intragroup funding transactions, including off-balance exposures and commitments, and transferability of assets.

⁴ Wholesale funding generally includes any financing from institutions (e.g. banks, pension funds, money market mutual funds, other financial intermediaries, non-financial corporates).

35. To ensure that stress tests capture a sufficiently diverse set of risks, the insurer should use a variety of time horizons for its scenario planning. The insurer should consider several relevant time horizons (such as one month, three months or longer term horizons, up to one year as relevant to its liquidity profile). While insurers are generally exposed to, and expected to plan for, medium- to longer-term risks, certain activities, such as collateral calls or withdrawals from large or institutional policies, can result in sudden, large demands for liquidity. Where applicable, the supervisor may also suggest any other planning horizons relevant to the insurer's liquidity risk profile. For example, for insurers with significant activity in capital markets that could generate short-term liquidity needs, the supervisor may find horizons of one week or less appropriate.

36. The insurer should make realistic and conservative assumptions, both qualitative and quantitative, in determining the stress scenarios and in calculating their impacts. Additionally, insurers should not consider the impact of any macroprudential policy actions taken under adverse circumstances in their post stress liquidity position. Key assumptions should be described and justified in relation to the level of severity of the scenario and relevant risk factors taken into account.

37. It may be the case that an insurer has facilities with liquidity providers or access to other off-balance sheet sources of liquidity that it could draw on. While an insurer may consider such off-balance sheet sources in the assessment of its liquidity position, it is a prudent practice to assume that they would not be available in either its stress testing or business as usual risk management. While these off-balance sheet sources may provide funding under normal conditions, they may not be available when needed, in times of stress, as a large number of institutions may try to seek funding from the same sources. As such, these off-balance sheet sources may amplify shocks to the financial system by transmitting the insurer's liquidity demands to other financial counterparties or signal liquidity events to markets. Therefore, insurers should consider stress scenarios both with and without the availability of off-balance sheet sources of funding, where relevant. Borrowings from off-balance sheet sources may be more appropriately considered as emergency measures in the insurer's contingency funding plan (discussed in Section 6).

38. Other potential cash inflows, such as future premiums and reinsurance claims, may still be assumed to be available under stressed conditions, though the insurer should adjust their assumed availability in line with stress scenarios. For example, a spike in interest rates may make alternative savings products more appealing, reducing the inflow of new premiums. In regards to reinsurance, the insurer should consider the credit quality of the reinsurer and make reasonable assumptions on the availability and timeliness of reinsurance recoverables, taking into account the value, after applying an appropriate haircut⁵, and liquidity of any collateral posted.

39. The supervisor should assess an insurer's responses to a liquidity stress: these should not include actions that would significantly damage the insurer's franchise or reputation. In line with this, the supervisor may consider whether it could send an inappropriate signal to policyholders and markets more broadly. Anticipated management actions should be consistent with the insurer's contingency funding plan.

⁵ A haircut is a reduction applied to the value of an asset. A haircut is intended to reflect the risk of an asset's value declining when the holder wishes to monetise it.

40. Events that have a significant impact on capital may not have a significant impact on liquidity. As such, stress testing work for capital purposes may not be relevant or adequate for liquidity risk management.

41. Where the insurer is required to submit a liquidity risk management report to the supervisor, the degree of conservatism of the scenarios and assumptions, alongside the results, should be discussed in the report and assessed by the supervisor.

5 Meeting liquidity shortfalls in stress

42. ICP Standard 16.9 requires, as necessary, the insurer to establish more detailed liquidity risk management processes, as part of its ERM framework that include maintenance of a portfolio of unencumbered highly liquid assets in appropriate locations. ComFrame 16.9.b requires the insurer and the Head of the IAIG to establish and maintain an adequate level of unencumbered highly liquid assets in appropriate locations. These highly liquid assets are intended to be monetised in order to fill any shortfalls of cash in-flows relative to cash out-flows arising over a particular time horizon: they should therefore be available to respond to liquidity shortfalls as they arise.

43. The insurer should establish an adequate level of highly liquid assets to hold using the stressed cash in-flows and out-flows from its liquidity stress testing scenario(s).

5.1 Characteristics of highly liquid assets

44. Highly liquid assets should be easily and immediately convertible into cash. Such assets generally have low credit risk and low volatility; have easy, transparent and accurate valuations; and have low correlation with risky assets. These assets typically also have consistently active markets with evidence of market breadth and depth with a diverse group of active buyers and sellers. Finally, assets should have a proven record as a reliable source of liquidity during stressed market conditions. The insurer should be able to demonstrate the liquidity of any assets it considers highly liquid assets.

45. To ensure their availability to meet the insurer's liquidity needs, highly liquid assets should be unencumbered, meaning they are (i) free of legal, regulatory, contractual and other restrictions on the insurer's ability to promptly sell or transfer the asset and (ii) not pledged or used to secure or provide credit enhancement to another transaction.

46. The insurer should impose an appropriate haircut to the fair market value of its highly liquid assets in order to account for the increased credit risk and market volatility during a stress event. The haircuts should appropriately reflect differences in credit quality and market volatility across asset types and the amount of time that would be required to sell the asset. The assumed haircuts should be documented and key assumptions underlying them described.

47. Highly liquid assets may include the following, though insurers should be able to demonstrate that the assets they consider as highly liquid meet the criteria in paragraph 44:

- Demand deposits; provided that these are sufficiently diversified across institutions so as not to create a concentration risk;
- Government money market mutual funds; provided the funds hold high levels of cash or liquid assets and have a stated objective to provide liquidity on demand;

- Securities issued or unconditionally guaranteed by sovereign entities, supranational organisations, such as the Bank for International Settlements, the International Monetary Fund, the European Central Bank, the European Union, or a Multilateral Development Bank and other non-sovereign public sector entities that are backed by the full faith and credit of the issuing entity;⁶
- Other securities issued by a sovereign entity in its own currency used to back liabilities in that sovereign's jurisdiction;
- Securities issued by a government sponsored enterprise that are senior to preferred equity;
- Covered bonds;⁷
- Vanilla corporate debt securities, including commercial paper, not issued by a financial institution or any of its affiliated entities;⁸
- Fixed income instruments issued by public sector entities; and
- Common equity shares publicly traded on an exchange, included in a major stock index, and not issued by a financial institution or any of its affiliated entities.

Other assets may be considered as highly liquid where the insurer can demonstrate to the supervisor that they have low credit risk and low volatility, are liquid and readily marketable and have a proven record as a reliable source of liquidity during stressed market conditions.

48. Instruments issued by other financial institutions have the potential for wrong-way risk (ie that their liquidity is correlated with developments in the financial markets and/or broader economy) and may exacerbate stress at the insurer level. Moreover, such instruments could contribute to systemic risk by increasing the insurer's interconnections with the rest of the financial sector. As a result, it would not generally be expected that instruments issued by financial institutions or their affiliated entities would be appropriately considered as highly liquid.

49. There are natural differences in the liquidity of these assets that would limit the insurer's ability to monetise them during a stressed situation. As a result, the insurer should group assets according to their usability in stress with sufficient granularity to adequately manage risks in its liquidity profile. To ensure their usability in stress and to minimise financial stability impacts from the monetisation of financial assets, insurers generally should not rely on lower quality assets for shorter stress periods as they may be unable to monetise these assets quickly enough to meet liquidity needs. Moreover, large sales of lower quality assets in a short time period, particularly in stressed conditions, could impact market prices, thereby affecting similar assets held by other institutions through, for instance, the recording of mark-to-market losses or loss of confidence that may in turn exacerbate the negative price impact loop.

50. To reflect differences in liquidity, highly liquid assets may be further considered as Primary, Secondary or Tertiary. Primary assets are generally those of the highest quality and

⁶ This will generally exclude special revenue bonds or other obligations which are backed by a specific stream of revenue.

⁷ Covered bonds are bonds issued by a bank or mortgage institution and are subject by law to special public supervision designed to protect bond holders. Proceeds deriving from the issue of these bonds must be invested in conformity with the law in assets which, during the whole period of the validity of the bonds, are capable of covering claims attached to the bonds and which, in the event of the failure of the issuer, would be used on a priority basis for the reimbursement of the principal and payment of the accrued interest.

⁸ These securities' valuation is readily available based on standard methods and does not depend on private knowledge, ie these do not include complex structured products or subordinated debt.

liquidity and are more likely to have willing buyers in very short horizons, even during stressed conditions. Because of this, primary assets should generally comprise a majority share of the insurer's stock of highly liquid assets. Secondary assets are still of high quality, but will generally incur larger haircuts and/or take more time to find a buyer than Primary assets. Tertiary assets will, in general, have less active markets, and therefore take even more time to find a willing buyer, or will incur more substantial haircuts on sale during stressed market conditions.

51. Different proportions of Primary, Secondary and Tertiary assets may be appropriate depending on the horizon of the liquidity stress. For short-term stresses, for example those of one week or less, insurers should rely on Primary assets, though they may also consider limited quantities of Secondary assets. For medium-term stresses, for example those between one week and three months, the insurer should rely on both Primary and Secondary assets, but may also, in certain circumstances, consider limited quantities of Tertiary assets to be appropriate. For longer-term stress periods, for example those longer than three months, the insurer would likely be expected to sell assets more strategically to minimise losses. As such, Primary, Secondary and Tertiary assets could be used in any quantity.

By way of illustration, the table below provides one example of how groups of assets may be considered for the purposes of assessing their availability to meet liquidity needs in different stress horizons. The provided example may not, however, meet all the specificities of the business or the local market. As a result, an insurer should still be able to demonstrate to the supervisor, and the supervisor should review the suitability of, the assets that the insurer considers usable to meet liquidity needs in the chosen liquidity stress horizon.

<u>Asset Class</u>	<u>Other Considerations</u>	<u>Liquidity Bucket</u>	<u>Time horizons</u>
Demand deposits	Sufficiently diversified	Primary	All
Government money market funds	Hold high levels of cash or liquid assets and have a stated objective to provide liquidity on demand ⁹	Primary	All
Securities issued or guaranteed by sovereign, supranational or other non-sovereign public sector entities backed by their full faith and credit	Used to back liabilities in the sovereign's jurisdiction	Primary	All
	Rated AA- / Aa3 or better	Primary	All
	Rated A- / A3 or better, but less than AA- / Aa3	Secondary	Medium- and long-term <i>Short-term in limited quantities and higher haircuts</i>

⁹ Examples may include Government money market funds or public debt constant net asset value money market funds (public debt CNAV MMF). The insurer should be able to demonstrate that a given fund meets the criteria for the fund to be considered eligible as highly liquid.

Securities issued by a Government Sponsored Enterprise senior to preferred equity	Rated AA- / Aa3 or better	Primary	All
	Rated A- / A3 or better, but less than AA- / Aa3	Secondary	Medium- and long-term <i>Short-term in limited quantities and higher haircuts</i>
Covered bonds	Rated AA- / Aa3 or better	Secondary	Medium- and long-term <i>Short-term in limited quantities and higher haircuts</i>
	Rated BBB- / Baa3 or better, but less than AA- / Aa3	Tertiary	Long-term <i>Medium-term in limited quantities and higher haircuts</i>
Vanilla corporate debt securities, including commercial paper	- Rated AA- / Aa3 (A1 / P1 for commercial paper) or better; AND - Not issued by a financial institution or its affiliates.	Secondary	Medium- and long-term <i>Short-term in limited quantities and higher haircuts</i>
	- Rated BBB- / Baa3 (A2 / P2 for commercial paper) or better, but less than AA- / Aa3 (A1 / P1 for commercial paper); AND - Not issued by a financial institution or its affiliates.*	Tertiary	Long-term <i>Medium-term in limited quantities and higher haircuts</i>
Other fixed income instruments issued by public sector entities	- Rated BBB- / Baa3 or better	Tertiary	Long-term <i>Medium-term in limited quantities and higher haircuts</i>
Common equity shares	- Publicly traded on a major exchange; AND - Not issued by a financial institution or its affiliates	Tertiary	Long-term <i>Medium-term in limited quantities and higher haircuts</i>
Other assets	Demonstrated to have low credit risk and low volatility, is liquid and readily marketable and has a proven record as a reliable source of liquidity	Secondary / Tertiary	(dependent on the tier)

	during stressed market conditions.		
<p>*Vanilla debt securities (consistent with seventh bullet point in paragraph 47 issued by financial institutions may, at the supervisor’s discretion, be considered as Tertiary assets, provided that the insurer can demonstrate to the satisfaction of the supervisor that they meet the conditions in paragraph 44.</p>			

52. To avoid double-counting, assets generating future cash inflows used in the insurer’s stressed cash flow projections, for example through coupon, interest payments or maturities, should not count toward the level of highly liquid assets for the selected stress scenario as the insurer would be unable to realise these inflows if the assets were sold. This does not mean that assets used to meet cash flow needs outside of the relevant time horizon could not be counted toward this level as the insurer would likely have time to re-balance its portfolio.

5.2 Other considerations

53. An insurer’s highly liquid assets should be sufficiently diversified to reduce the risk of a material portion of the insurer’s portfolio becoming illiquid just when it needs to monetise them to meet cash flow shortfalls. In its liquidity risk management report, where relevant, the insurer should assess the diversity of its highly liquid assets by counterparty, including groups of related counterparties, counterparty jurisdiction and instrument. This should be done with regard to its own asset portfolio and also considering the broader market (ie the insurer does not hold a substantial share of the market for a particular counterparty or asset class) to ensure that the market will be able to bear the insurer’s sales without adversely impacting its ability to monetise its highly liquid assets as planned. To assist in the fulfilment of these objectives, the insurer may find it appropriate to establish, in its liquidity risk management framework, quantitative limits on assets and exposures, as necessary.

54. The insurer should assess its ability to convert its highly liquid assets into cash in a short time frame. This may involve periodically testing internal operational procedures of executing asset sales. This may help the insurer assess its access to the market, the effectiveness of its processes for monetisation and the availability of the assets. Even where policyholders fully bear the investment risk of these assets, large-scale asset sales or purchases for these policies may still present operational challenges. As such, the insurer should consider its ability to monetise assets without compromising on either speed of disposal or price. As part of this assessment, the insurer should describe and justify all key assumptions about the amount of time needed to sell significant blocks of assets or the availability of willing counterparties.

55. The insurer should consider transferability of assets in determining an adequate level of highly liquid assets and the location where these assets are held. To protect policyholders, insurers are often restricted from transferring liquidity out of insurance legal entities in stressed conditions. As such, insurers should not assume that assets held in insurance legal entities are readily available to cover liquidity shortfalls elsewhere in the group. In the context of the group’s liquidity risk management, these assets should only be considered as available up to the amount of the net stressed cash outflows as calculated under the relevant internal liquidity stress tests plus any additional amounts that would be available for transfer to all other entities within the group during times of stress not subject to statutory, regulatory, contractual or supervisory restrictions on transfer. Funds held in regulated legal entities that have cash flow

surpluses during the stress test and that would not be transferrable within the group should not be considered available at the group level.

56. Finally, in times of stress, access to foreign exchange markets may be impaired, especially those for less frequently traded currencies. When determining the appropriate location and currency of its highly liquid assets, the insurer should be aware of the risk of non-convertibility of foreign currencies, particularly over short time horizons.

6 Contingency funding plan

57. As indicated in ICP Guidance 16.9.3, contingency funding planning to respond to liquidity stress events may assist the insurer in addressing stress situations where its highly liquid assets are insufficient or unexpectedly become illiquid. It should include the actions that the insurer could realistically take to ensure that liquidity sources are sufficient to maintain normal operations and continue to meet its financial obligations, including collateral needs, under stress. Such a plan should describe the insurer's strategies for addressing liquidity shortfalls in emergency situations in a timely manner and at a reasonable cost.

58. The form and level of detail of the plan and the frequency of testing, reviewing and updating should take into account the proportionality principle, as well as the results of its liquidity stress testing, which may reveal funding sources most likely to be impacted during stress and which the insurer is most reliant on.

59. An insurer should regularly test its contingency plan to identify any dependencies and barriers to execution and ensure that it remains operationally robust. Based on this, but also as a way of good practice, the insurer should regularly review and update its contingency plan to ensure that it remains fit for purpose, especially when there are material changes to the nature, scale and complexity of the insurer's activities, highly liquid assets, funding profile or market environment. An insurer with a more volatile liquidity position may wish to test its contingency funding plan more frequently than others.

6.1 Key elements of a contingency funding plan

60. An insurer's contingency funding plan should include a diversified set of viable, readily available and flexibly deployable methods that the insurer would use to access alternative sources of funding. These may include off-balance sheet liquidity facilities to the extent that such facilities cannot be unilaterally revoked, are already available and can be accessed without further action by liquidity providers, such as new approval to access a liquidity facility. The plan should also describe when and how each of the actions could be activated and the time needed to access funds and quantity of funds that would be expected to be available from each contingency source in the given stress. The plan should describe clear steps that allow the insurer to make timely and informed decisions, execute contingency measures efficiently, and communicate effectively. No one particular method, such as accessing a pre-funded liquidity facility, is expected to be included as part of this plan. The plan serves as a reference point to inform and guide the actions of the insurer in times of actual stress, though the insurer's ultimate action should be adapted to the conditions of the actual stress event.

61. The insurer's contingency funding plan should address a range of plausible stresses and in different time horizons, including intraday horizons where relevant. An insurer that is exposed to a broader array of risk drivers should plan for a wider set of applicable circumstances.

62. The contingency funding plan should include quantitative metrics that the insurer would use to identify a range of liquidity stress events, including the level and nature of the effect it would have on the insurer's liquidity position and on sources of available funding. Such metrics should be informed by the insurer's stress tests and could include sharp increases in interest rates, a catastrophic event, steep equity market declines, multiple ratings downgrades or other events that could affect the policyholder's or counterparties' perception of the insurer's liquidity or solvency condition. On the basis of these metrics, the plan should define a variety of circumstances in which it would be executed to respond to liquidity shortfalls for identified stress events. The insurer may wish to use different metrics to differentiate between systemic and idiosyncratic liquidity stress. For instance, with an idiosyncratic liquidity stress the insurer may have a broader range of possible actions that it could use to raise liquidity or make more time to execute planned actions, compared to a systemic liquidity stress.

63. The plan should clearly set out a process for which actions to take and their timing, who can take them, and what needs to be escalated or prioritised. The plan should establish a clear allocation of roles and clear lines of management responsibility and define procedures for identifying early warning indicators for potential liquidity stress events that are based on the distinctive features of its business. The plan should also contain a governance process for escalation. It should establish the lines of communication to ensure that the Board and Senior Management receive the necessary management information in a timely manner. It is important that the relevant employees are aware of the operational procedures to transfer liquidity and collateral across legal entities and accounts as well as the restrictions that govern such transfers.

64. The insurer's contingency funding plan should take into account the impact of stressed market conditions on its ability to monetise assets, including market-imposed haircuts or operational limitations, the impact of a freeze in typically available market funding options, the financial, reputational or other consequences for the insurer of executing its contingency funding plan and its ability to transfer liquidity between entities. The plan should also outline how it will manage both internal communications and those with external stakeholders.

65. Given the overlapping focus, the insurer may integrate its contingency funding plan into its recovery planning.

7 Liquidity risk management report

66. A liquidity risk management report should include at least the following:

- A liquidity risk appetite statement;
- Established liquidity risk limits;
- A discussion of the current liquidity position of the insurer in relation to its liquidity risk appetite and limits;
- A summary of strategies, policies and processes that the insurer has in place to manage liquidity risk;
- A discussion of potential vulnerabilities in the insurer's liabilities as well as the means of enhancing the liquidity position; and
- The insurer's approach to, and results of, liquidity stress testing.

67. A key purpose of a liquidity risk management report is to document and demonstrate overall liquidity adequacy, both under current and stressed market conditions. The report should set out an insurer's approach to liquidity and funding. It should be clear and self-

explanatory so that any outside person familiar with the subject matter can easily understand it. The liquidity risk management report should also be tailored to the risks to which an insurer is exposed.

68. The liquidity risk management report should be regularly updated, and for IAIGs it is required to be updated at least annually¹⁰. More frequent updates are expected particularly when there are material changes to the nature, scale and complexity of the insurer's activities that lead to increased liquidity risk exposure as well as the risk amplification effects related to the size of the insurer.

7.1 Risk appetite and risk limits

69. A central component of liquidity risk management is a clear articulation of the acceptable level of liquidity risk that the insurer may assume to achieve its strategic objectives. This should be described in the liquidity risk appetite statement and should define the duration and type of stress or stresses that the insurer aims to survive. This statement should include both quantitative targets, such as excess liquidity or liquidity coverage ratios, and qualitative objectives. As per ICP Guidance 16.4.5, the insurer's risk appetite statement should be articulated in a way that all levels of management can clearly understand and apply it to all aspects of liquidity risk management throughout the organisation. All elements of the liquidity risk management report should be consistent with the risk appetite statement. The liquidity risk appetite statement is an integral part of the insurer's general risk appetite framework and should be separately identified within the framework to ensure that it is given the appropriate emphasis.

70. To the extent possible, the insurer's liquidity risk management report should include a description of the systems and metrics used to measure and monitor liquidity risk. A number of techniques can be used for measuring liquidity risk, ranging from simple calculations to highly sophisticated modelling. The degree of sophistication in risk metrics should be reflective of the scale, nature and complexity of the insurer's activities.

71. In order to implement the insurer's stated liquidity risk appetite, based on these metrics, management should consider where limits should be set, in accordance with the nature, scale and complexity of the insurer's activities. Activities that may warrant limits to be set are (i) non-insurance liabilities maturing or redeemable within various time horizons; (ii) off-balance sheet or other exposures that could create liquidity needs during stressed market conditions; (iii) concentrations of highly liquid assets and funding sources by currency, single counterparty or group of related counterparties, counterparty type, instrument type and instrument seniority; (iv) liquidity risk arising from insurance liabilities; (v) maturity gaps; and (vi) the value or proportion of encumbered assets. These limits should be documented in the insurer's liquidity risk management report, including how they interact with the insurer's stated liquidity risk appetite as well as in relation to the insurer's current liquidity position.

72. The liquidity risk appetite statement should be approved by the Board or the relevant Board Committee. The liquidity risk limits should be approved by the Senior Management.

¹⁰ CF 16.9.d states the following: "The group-wide supervisor requires the Head of the IAIG to report, at least annually, on its management of liquidity risk. The report includes at least the following: a liquidity risk appetite statement, established liquidity risk limits, a discussion of the current liquidity position of the IAIG in relation to its liquidity risk appetite and limits, a summary of strategies, policies and processes that the IAIG has in place to manage liquidity risk, a discussion of potential vulnerabilities in the IAIG's liabilities as well as the means of enhancing the liquidity position, and the IAIG's approach to, and results of, liquidity stress testing."

Senior Management should disseminate the insurer's liquidity risk appetite and limits to involved employees and ensure that these employees work cooperatively to implement the strategies, policies and processes that the insurer has in place to manage liquidity risk. Throughout its liquidity risk management report, the insurer should demonstrate how the liquidity risk appetite is applied, in particular, how it and the insurer's liquidity risk management report are integrated into the risk management framework and how they inform business decisions (ie a use test).

73. Regarding the use test, for example, liquidity risk should be integrated with investment risks and influence business decisions around purchases and sales and asset allocation. Liquidity risk and liquidity risk appetite should generally also influence product design when considering large policy limits, guaranteed rates, surrender periods and benefits.

7.2 Strategies, policies and processes for liquidity risk management

74. The insurer's liquidity risk management report should discuss the strategies, policies and procedures that the insurer has in place to manage liquidity risk and implement its stated liquidity risk appetite.

75. Where applicable to its business, the report should detail the policies it has in place for the monitoring of intraday liquidity risk exposure, including any obligations that must be settled at a specific time within the day or where intraday events could materially and adversely affect the insurer's liquidity position. For instance, where intraday movements of asset prices could force the insurer to rebalance its hedging portfolio, the report should describe the procedures that the insurer has in place to monitor and mitigate the risk to its liquidity position. Other examples of intra-day risks could include securities trade settlements, where an insurer has used intra-day credit to fund all or part of the transaction, or margin calls on derivatives contracts.

76. Insurers with significant collateral needs, for example through derivatives, securities financing transactions¹¹ (SFTs) or certain reinsurance agreements, should have in place systems and procedures to monitor assets that have been encumbered or are available to be loaned or pledged in such transactions. Where applicable, these systems and procedures should be detailed in the liquidity risk management report. In addition, the report should describe how the insurer monitors the levels of unencumbered assets that could be loaned or pledged. The insurer should also take into account any operational restrictions that could impair its ability to pledge certain assets, such as their geographical location or currency.

77. Insurance legal entities that are part of a group face additional considerations in their liquidity risk management. Groups should elaborate on all key considerations within their liquidity risk management report at a group level and also for all material legal entities or functional sub-groups of entities. The liquidity risk management report should consider if, and to what extent, entities or sub-groups are self-sufficient or dependent on liquidity support from other parts of the group and whether such arrangements are both prudent and expected to be

¹¹ Securities Financing Transactions (SFTs) are transactions such as repurchase (repo) and reverse repurchase (reverse repo) agreements, buy-sell back and sell-buy back transactions, dollar and reverse dollar rolls, security lending and borrowing, and margin lending transactions, where the value of the transactions depends on the market valuations and the transactions are often subject to margin agreements.

honoured in a stress scenario. As part of its ERM framework, groups should ensure the consistent reporting of results at the level of group and the legal entities.

7.3 Analysis of the insurer's liquidity profile

78. The insurer should consider potential vulnerabilities in its liability profile, both insurance-related and non-insurance-related. The insurer's liquidity risk management report should discuss its outstanding products in sufficient detail so that a reader can understand their features. The insurer should pay particular attention to product features that may encourage withdrawals or otherwise create significant liquidity demands under certain circumstances, for example the following:

- To the extent the insurer provides bank- or corporate- owned life insurance (BOLI or COLI), it should describe the exposures and assess the potential liquidity needs that could arise from these products;
- The insurer should mention any deposit-type contracts or similar products.¹² Where a trust or special purpose vehicle (SPV) or other structure is used to transform the maturity of the issued instrument, for example in a funding agreement-backed securities programme, these structures may exacerbate liquidity risk and the insurer should describe such structures in the report;
- The insurer should maintain adequate ability to regularly quantify, monitor and report to the supervisor insurance contracts that could present material funding draws due to policyholder decisions. This should be done at such a level to identify blocks of business that may behave similarly. Companies should be able to monitor these amounts net of surrender penalties and market-value adjustments to assess maximum cash flow needs and to identify changes in the aggregate profile of a block's surrender charges;
- Material outstanding legal decisions that could create unexpected liquidity needs;
- The insurer's report should describe any non-insurance liabilities that could contribute to liquidity stress. A detail should be provided of yield enhancing activities, such as, SFTs that the insurer engages in, including reinvestment practices and its internal policies regarding such activities; and
- The insurer should also describe how its hedging strategy and hedge efficiency affects the ways through which it manages the associated liquidity risk, for instance, through margin calls or rebalancing.

79. To complement an analysis of its liabilities, the supervisor should also require the insurer to consider its means for raising or retaining cash. This may include an assessment of returns on investments, off-balance sheet instruments, such as credit lines, its ability to issue debt or commercial paper and its ability to reduce dividends. As part of this analysis, the report should detail any legal or operational restrictions, covenants, etc. that might limit its ability to use these means to raise funds under stress. This analysis should also include an assessment of the liquidity of the insurer's investment portfolio. It should consider material assets that have been pledged, encumbered or are otherwise unavailable to raise cash. The supervisor may expect the insurer to assess the extent that it has generally illiquid investments, such as

¹² Deposit-type insurance liabilities are those products that do not incorporate significant insurance risk. Examples of products that should be reported include Guaranteed Investment Contracts (GICs), Funding Agreements, Capital Redemption Policies, Annuities Certain, and Funding Agreement-backed or Fixed Annuity-backed securities

privately placed securities, real estate or mortgages that it is using to support liabilities that could be subject to material cash demands.

80. In the normal course of business, the insurer should periodically produce cash flow projections, commensurate with the relevant time horizon, that incorporate, where relevant and material, (i) anticipated claim and annuity payments; (ii) policyholder options including surrenders, withdrawals and policy loans; (iii) collateral requirements; (iv) expenses; (v) intercompany transactions; (vi) maturities and renewals of funding instruments, including through the exercise of provisions that could accelerate their maturity; (vii) premiums from new and recurring business; (viii) investment income; and (ix) any other potential cash flows that are relevant to the unique nature of the insurer's business and activities. Cash flows should be reported with sufficient detail on the underlying activity and at sufficient granularity with respect to the time interval for the insurer to assess areas for potential vulnerabilities. Cash flows from asset disposals should be accounted for separately. In its liquidity plan, the insurer is expected to document and justify all key assumptions used in generating the cash flow projections. In the plan, the insurer should also identify and analyse any potential, discrete and cumulative cash flow mismatches over various time horizons, as applicable to its activities and business.

8 Supervisory review and reporting

8.1 Supervisory review

81. Guidance on elements of liquidity risk management presented in this Paper can support the supervisory review of the insurers' framework. This section presents additional considerations to assist the supervisor in its assessment.

82. With respect to evaluating the integration of liquidity risk into an insurer's ERM framework discussed in ICP Standard 16.8, the supervisor may follow its usual approach for the review of the ERM. For liquidity risk management specifically, the supervisor should assess whether the insurer's framework adequately considers the time horizons and transferability of liquidity across entities, purposes and currencies. As timing is a critical dimension to liquidity risk, the supervisor should assess whether the insurer maintains sufficient operational capabilities, including information systems, to manage liquidity stress events. This includes assessing whether the Board and Senior Management of the insurer has access to timely information to identify and manage liquidity events.

83. Where contingency funding plans of multiple insurers envision the use of liquidity facilities to respond to a liquidity stress event, the supervisor should review the appropriateness of these in meeting potential stressed liquidity needs. As part of the review, the supervisor should assess whether insurers' facilities are concentrated with a particular counterparty or market (see the forthcoming Application Paper on Macroprudential Supervision).

84. In line with ICP Guidance 16.9.6, where an insurer is required to establish detailed liquidity risk management processes, the supervisor should assess the effectiveness of their implementation, including the interaction with existing control mechanisms.

85. The following paragraphs address the supervisory review of specific elements in ICP Standard 16.9.

86. Liquidity Stress Testing: While stress testing should be the insurer's responsibility, taking into account its own ERM framework, the supervisor should review an insurer's stress test design and results. The review should focus on whether:

- the set of scenarios are appropriate and adequate for the insurer's liquidity exposures;
- scenarios and associated assumptions and parameters are forward-looking, coherent and conceptually sound;
- anticipated management actions are realistic and consistent with stated contingency plans;
- there are appropriate controls around the stress testing process; and
- stress testing results inform business and risk management practices.

In reviewing the appropriateness of the chosen stress scenarios, the supervisor should also consider the time horizons, as well the segments they are divided into, used by the insurer in its liquidity risk assessments, the key assumptions used in the models used for cash flow projections and stress testing, such as economic variables, capital markets conditions, differences in lapse sensitivity, debt issuance and refinancing, new business and the occurrence of insured events.

87. Highly Liquid Assets: The supervisor may need to assess the suitability of the assets that the insurer considers to be highly liquid in the context of the timing of a particular insurer's liquidity needs. To account for the differences in the timing of payments and possible volumes of liquidity needs, the supervisor can use the insurer's stress testing as an input to the assessment of the quality and quantity of the insurer's highly liquid assets. The supervisor may set expectations of the overall quality or liquidity of assets depending on the insurer's liquidity risk profile or may allow insurers to identify multiple portfolios of assets with differing proportions of Primary, Secondary and Tertiary assets to cover liquidity needs in different stressed horizons. As part of its review, the supervisor should assess whether these assets are accessible by relevant entities to ensure that they are able to meet their liabilities as they fall due.

88. Contingency Funding Plan: The supervisory review of an insurer's contingency funding plan should cover the adequacy of the plan and the insurer's preparedness to execute the plan. The supervisor should assess whether the plan covers an adequate range of scenarios, relies on actions that are realistic for the particular scenario, including ability to execute in a timely manner and provides enough flexibility to react to unforeseen scenarios. Scenarios considered in the contingency funding plan should be informed by, but not limited to, the results of the insurer's liquidity stress tests. The supervisor should assess whether processes are current and documented and whether key employees have been trained. The supervisor should assess whether the insurer regularly and adequately tests aspects of the plan to ensure that plans can be executed if required. This includes testing access to funding sources, production of necessary reporting and coordination among relevant stakeholders.

89. Liquidity Risk Management Report: the supervisor should assess whether the framework in the report is sound, reflective of the insurer's risk profile and is currently being put into practice as presented. The supervisor should assess the reporting on the insurer's risks and risk positions and determine whether it provides the supervisor and Board with adequate insight into the insurer's risks and risk management. The liquidity risk appetite and levels of limits should have sound rationale and be appropriately monitored and enforced. The

supervisor should assess whether liquidity policies are documented and are being applied as required in business decision making.

90. Where the supervisor deems that the insurer's liquidity risk management is not appropriate to the nature, scale and complexity of the insurer or its activities, it should require the insurer to take effective and timely action. This could be in the form of further supervisory reporting or additional qualitative and quantitative requirements arising from the supervisor's assessment. As per ICP Guidance 16.16.14, additional quantitative requirements should only be applied in appropriate circumstances and be subject to a transparent supervisory framework.

8.2 Reporting to the supervisor

91. As noted in section 7, the insurer should report regularly to the supervisor on its liquidity management and planning. Moreover, an IAIG should be required to report this annually or more frequently in the event of material changes to its liquidity plan or liquidity risk profile. The report and other related information may be shared within the insurer's supervisory college where relevant.

92. The insurer should ensure consistency between its liquidity risk management report and all other supervisory required documents, such as recovery and resolution plans or Own Risk and Solvency Assessments (ORSAs). However, to the extent that elements of the report are incorporated in other material, the supervisor may allow the insurer to satisfy the reporting requirement by reference to those other risk management materials and/or the ORSA.

93. As part of its liquidity risk management, the insurer should report the ratio of the highly liquid assets to net stressed cash outflows, under each time horizon, as produced by its stress test(s).

94. The supervisor should collect additional information on the set of risks that may be relevant for a particular insurer as part of its monitoring of potential vulnerabilities arising from liquidity risk in the insurance sector.¹³

95. By way of illustration, possible additional data elements that the supervisor could collect, after taking into consideration expected costs and benefits of additional reporting requirements, are included below:

- General funding make-up¹⁴ (including, at a minimum, information on residual maturities of assets and liabilities, pledged, secured, and unsecured funds, off-balance sheet transactions). This could be applied to all insurers, with larger, more complex insurers submitting more granular information.
- SFTs, in line with FSB's recommendation¹⁵, with the intent of capturing both the maturity structure of these transactions (and the extent that the entity uses them to conduct maturity transformation) and for assessing intra-financial connections.

¹³ See, for example, the Section, Data Elements and Granularity in FSB (2015): Transforming Shadow Banking into Resilient Market-based Finance: Standards and processes for global securities financing data collection and aggregation, <http://www.fsb.org/wp-content/uploads/FSB-Standards-for-Global-Securities-Financing-Data-Collection.pdf>.

¹⁴ See eg Figures 6 and 17 from http://www.fsb.org/wp-content/uploads/r_121029.pdf

¹⁵ See, eg the section, *Data Elements and Granularity* from <http://www.fsb.org/wp-content/uploads/FSB-Standardsfor-Global-Securities-Financing-Data-Collection.pdf>

This may be most efficiently applied to insurers conducting a material amount of SFTs (eg 1% of total liabilities or gross SFT liabilities greater than 5 billion USD).

- Surrender information to assess the likelihood of and the insurer's resilience to a mass lapse event. Information could be requested by any product type, distribution channel, policyholder age (bucket), interest rate sensitivity, contract age, remaining policy duration or premium payment type.
- Funding instruments (including information on contractual maturities, both interim and final, and embedded optionality) with information on the use of short-term funding and the use of funding instruments that may unexpectedly become short-term. This may be most efficiently applied to insurers with a material amount of outstanding debt or deposit-type contracts (eg 5% of total liabilities).
- Available unencumbered assets to assess insurers' ability to monetise assets. This could be applied to all insurers, with larger, more complex insurers submitting more granular information.
- Funding concentrations (by counterparty and product/instrument type > 1% of assets) to assess liquidity concentration risk. This could be applied to all insurers, with larger, more complex insurers submitting more granular information.
- Derivatives¹⁶ with the intent of capturing counterparty information (intra-financial considerations) and assessing the potential for future collateral calls from volatile positions. This may be most efficiently applied to insurers conducting a material amount of derivatives activity (eg notional greater than 100 billion USD).

¹⁶ See for instance <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R0104&from=EN>, Table 1, items 2-7, 14, 17, 20-35, and Table 2 Sections 2a-2C, items 1-11, 17-24, 26-30.