

Regulatory Considerations Applicable (But Not Exclusive) to Private Equity (PE) Owned Insurers

A summary of currently identified regulatory considerations follows with no consideration of priority or importance (green underlined font indicates current or completed work by another NAIC committee group). Most of these considerations are not limited to PE owned insurers and are applicable to any insurers demonstrating the respective activities.

1. Regulators may not be obtaining clear pictures of risk due to holding companies structuring contractual agreements in a manner to avoid regulatory disclosures and requirements. Additionally, affiliated/related party agreements impacting the insurer's risks may be structured to avoid disclosure (for example, by not including the insurer as a party to the agreement).
2. Control is presumed to exist where ownership is $\geq 10\%$, but control and conflict of interest considerations may exist with less than 10% ownership. For example, a party may exercise a controlling influence over an insurer through Board and management representation or contractual arrangements, including non-customary minority shareholder rights or covenants, investment management agreement (IMA) provisions such as onerous or costly IMA termination provisions, or excessive control or discretion given over the investment strategy and its implementation. Asset-management services may need to be distinguished from ownership when assessing and considering controls and conflicts.
3. The material terms of the IMA and whether they are arm's length or include conflicts of interest — including the amount and types of investment management fees paid by the insurer, the termination provisions (how difficult or costly it would be for the insurer to terminate the IMA) and the degree of discretion or control of the investment manager over investment guidelines, allocation, and decisions.
4. Owners of insurers, regardless of type and structure, may be focused on short-term results which may not be in alignment with the long-term nature of liabilities in life products. For example, investment management fees, when not fair and reasonable, paid to an affiliate of the owner of an insurer may effectively act as a form of unauthorized dividend in addition to reducing the insurer's overall investment returns. Similarly, owners of insurers may not be willing to transfer capital to a troubled insurer.
5. Operational, governance and market conduct practices being impacted by the different priorities and level of insurance experience possessed by entrants into the insurance market without prior insurance experience, including, but not limited to, PE owners. For example, a reliance on TPAs due to the acquiring firm's lack of expertise may not be sufficient to administer the business. Such practices could lead to lapse, early surrender, and/or exchanges of contracts with in-the-money guarantees and other important policyholder coverage and benefits.
6. No uniform or widely accepted definition of PE and challenges in maintaining a complete list of insurers' material relationships with PE firms. (UCAA (National Treatment WG) dealt with some items related to PE.) This definition may not be required as the considerations included in this document are applicable across insurance ownership types.
7. The lack of identification of related party-originated investments (including structured securities). This may create potential conflicts of interests and excessive and/or hidden fees in the portfolio structure, as assets created and managed by affiliates may include fees at different levels of the value chain. For example, a CLO which is managed or structured by a related party. (An agenda item and blanks proposal are being developed by SAPWG.)
8. Though the blanks include affiliated investment disclosures, it is not easy to identify underlying affiliated investments and/or collateral within structured security investments. Additionally,

transactions may be excluded from affiliated reporting due to nuanced technicalities. Regulatory disclosures may be required to identify underlying related party investments and/or collateral within structured security investments. This would include, for example, loans in a CLO issued by a corporation owned by a related party. ([An agenda item and blanks proposal are being developed by SAPWG.](#))

9. Broader considerations exist around asset manager affiliates (not just PE owners) and disclaimers of affiliation avoiding current affiliate investment disclosures. ([A new Sc Y, Pt 3, has been adopted](#) and will be in effect for year-end 2021. This schedule will identify all entities with greater than 10% ownership – regardless of any disclaimer of affiliation - and whether there is a disclaimer of control/disclaimer of affiliation. It will also identify the ultimate controlling party. Additionally, [SAPWG is developing a proposal to revamp Schedule D reporting](#), with primary concepts to determine what reflects a qualifying bond and to identify different types of investments more clearly, including asset-backed securities.)
10. The material increases in privately structured securities (both by affiliated and non-affiliated asset managers), which introduce other sources of risk or increase traditional credit risk, such as complexity risk and illiquidity risk, and involve a lack of transparency. (The NAIC Capital Markets Bureau continues to monitor this and issue regular reports, but much of the work is complex and time-intensive with a lot of manual research required. The NAIC Securities Valuation Office will begin receiving private rating rationale reports in 2022; these will offer some transparency into these private securities.)
11. The level of reliance on rating agency ratings and their appropriateness for regulatory purposes (e.g., accuracy, consistency, comparability, applicability, interchangeability, and transparency). ([VOSTF has previously addressed and will continue to address this issue.](#))
12. The trend of life insurers in pension risk transfer (PRT) business and supporting such business with the more complex investments outlined above ([LATF has exposed questions aimed at determining if an Actuarial Guideline](#) is needed to achieve a primary goal of ensuring claims-paying ability even if the complex assets (often private equity-related) did not perform as the company expects, and a secondary goal to require stress testing and best practices related to valuation of non-publicly traded assets (note – LATF’s considerations are not limited to PRT). Additionally, [enhanced reporting in 2021 Separate Accounts blank](#) will specifically identify assets backing PRT liabilities.)
Considerations have also been raised regarding the RBC treatment of PRT business.
 - a. Review applicability of Department of Labor protections resulting for pension beneficiaries in a PRT transaction.
 - b. Review state guaranty associations’ coverage for group annuity certificate holders (pension beneficiaries) in receivership compared to Pension Benefit Guaranty Corporation (PBGC) protection.
13. Insurers’ use of offshore reinsurers (including captives) and complex affiliated sidecar vehicles to maximize capital efficiency, reduce reserves, increase investment risk, and introduce complexities into the group structure.



NATIONAL ASSOCIATION OF
INSURANCE COMMISSIONERS

**NAIC 2021 LIQUIDITY STRESS TEST FRAMEWORK
For Life Insurers Meeting the Scope Criteria**

February 15, 2022

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INTRODUCTION

Macroprudential Implications of a Liquidity Stress

Beginning mid-year 2017, the NAIC embarked on a project to develop a liquidity stress testing framework. While the NAIC has existing tools and processes for assessing liquidity risk at a legal entity level (i.e., ‘inward’ impacts to the insurer), there was recognition that the NAIC toolbox could be further enhanced with the addition of more granular data in the annual statement and a tool that would enable an assessment of macroprudential impacts on the broader financial markets (i.e., ‘outward’ impacts) of a liquidity stress impacting a large number of insurers simultaneously.

Post-financial crisis, there were several attempts to assess potential market impacts emanating from a liquidity stress in the insurance sector. Many of these analyses relied heavily on anecdotal assumptions and observations from behaviors of other financial sectors. To provide more evidence-based analyses, the NAIC decided to develop a Liquidity Stress Test (LST) Framework for large life insurers that would aim to capture the outward impacts on the broader financial markets of aggregate asset sales under a liquidity stress.

The stress test will be run annually and the findings, on an aggregate basis, reported annually as part of the NAIC’s continuous macroprudential monitoring efforts. The NAIC’s pursuit of the liquidity stress test should not suggest any pre-judgement of the outcomes. The NAIC believes there is value to the exercise whether it points to vulnerabilities of certain asset classes or markets or, alternatively, suggests that even a severe liquidity stress impacting the insurance sector is unlikely to have material impacts on financial markets. The NAIC liquidity stress testing framework is intended to supplement, not replace, a firm-specific liquidity risk management framework. The NAIC has not yet discussed steps that might be taken to address any identified

vulnerabilities but acknowledges that any recommendations may require collaboration with other financial regulators.

The NAIC's revised proposed liquidity stress testing framework is contained in the pages that follow. The NAIC recognizes that, at least in the early years, the stress testing process and analyses will be iterative. We expect refinements as the framework is developed, especially after the first year's implementation.

BACKGROUND

NAIC Macroprudential Initiative

The NAIC's Macroprudential Initiative (MPI) commenced in 2017. It recognized the post-financial crisis reforms that became part of our Solvency Modernization Initiative (SMI) that continue to serve us well today. However, in the ensuing years since those reforms, insurers have had to contend with sustained low interest rates, changing demographics and rapid advancements in communication and technology. They have responded by offering new products, adjusting investment strategies, making structural changes, and expanding into new global markets. There are new market players, new distribution channels, and a complex web of interconnections between financial market players.

What has not changed since the financial crisis is the scrutiny on the insurance sector in terms of understanding how insurers react to financial stress, and how that reaction can impact, via various transmission channels, policyholders, other insurers, financial market participants, and the broader public.

The proposed work on macroprudential measures is reflective of the state insurance regulators' commitment to ensure that the companies they regulate remain financially strong for the protection of policyholders, while serving as a stabilizing force to contribute to financial stability, including in stressed financial markets. To that end, the NAIC's three-year strategic plan (2018-2020), "State Ahead", reflects the objective of "Evaluating Gaps and regulatory opportunities arising from macroprudential surveillance, and develop appropriate regulatory responses."

The NAIC's work on macroprudential surveillance is overseen by the Financial Stability Task Force of the NAIC Executive Committee. In April 2017, the Task Force was asked to consider new and improved tools to better monitor and respond to both the impact of external financial and economic risks on supervised firms, as well as the risks emanating from or amplified by these firms that might be transmitted externally. The Task Force, in turn, focused its efforts on potential enhancements to identify and monitor liquidity risk, among other areas. More specifically, the Task Force was requested to further develop the U.S. regulatory framework on liquidity risk with a focus on life insurers due to the long-term cash-buildup involved in many life insurance contracts and the potential for large scale liquidation of assets.

Liquidity Assessment Subgroup

To carry out its work on assessing liquidity considerations, the Task Force established the Liquidity Assessment Subgroup ("Subgroup") mid-year 2017.

Mandate

The charges and workplan of the Subgroup reflect the following assignments:

- Review existing public and regulator-only data related to liquidity risk, identify any gaps based on regulatory needs and determine the scope of application, and propose recommendations to enhance disclosures.
- Develop a liquidity stress testing framework proposal for consideration by the Financial Condition (E) Committee, including the proposed universe of companies to which the framework will apply (e.g., large life insurers).
- Once the stress testing framework is completed, consider potential further enhancements or additional disclosures.

In addition, a small informal study group comprised of regulators, industry participants and NAIC staff was formed to consider the specific data needs and technical aspects of the project. The study group is NOT an official NAIC working group. All recommendations from the study group must be vetted and considered by the Liquidity Assessment Subgroup and/or the Financial Stability (EX) Task Force according to NAIC procedures.

Data Gaps

Prior to undertaking work on the Liquidity Stress Test, the Subgroup constructed an inventory list of existing life insurer disclosures as of 2018 that contribute to an understanding of liquidity risk. When assessing the current state, the Subgroup recognized the availability of significant detailed investment-related disclosures but contrasted it to the relatively sparse liability-related disclosures. To remedy this imbalance, a blanks proposal was constructed to significantly increase the disclosures for life insurance products.

Specifically, the Analysis of Operations by Line of Business schedule was expanded from a single exhibit to five exhibits, one each for Individual Life, Group Life, Individual Annuity, Group Annuity, and Accident and Health. The Analysis of Increase in Reserves schedule was similarly expanded. Within each of the five new exhibits, columns were added for more detailed product reporting. For example, columns were added to the Individual and Group Life exhibits to capture universal life insurance and universal life insurance with secondary guarantees, and columns were added to the Individual and Group Annuity exhibits to capture variable annuities and variable annuities with guaranteed benefits. In addition, two new lines were added to the now five exhibits of the Analysis of Increase in Reserves schedule: one capturing the cash surrender value of the products outstanding and another capturing the amount of policy loans available (less amounts already loaned). A new addition was also proposed to the Life Notes to Financial Statement. The new Note 33 considered the type of liquidity concerns disclosed in Note 32 for annuities and deposit-type contracts and added disclosures for life insurance products not covered in Note 32.

These proposals were exposed and commented upon several times at the Liquidity Assessment Subgroup, the Financial Stability (EX) Task Force, and at the Blanks (E) Working Group. Ultimately, they were adopted by NAIC Plenary for inclusion in the 2019 Life Annual Statement Blank. As an interim step, The Financial Stability Task Force performed a data call requesting a few key lines of information from the newly adopted 2019 format of the Analysis of Operations by Line of Business schedule and the Analysis of Increase in Reserves schedule, as well as the new Note 33, but populated with 2018 year-end data. This data call was completed in July 2019.

Discussions with Insurers

During the latter part of 2017 and first quarter of 2018, the Subgroup conducted calls with several large life insurers who agreed to share their internal liquidity risk assessment processes. The dialogue provided extremely helpful input and informed the establishment of the initial direction of the Liquidity Stress Testing Framework. Feedback from these discussions include:

- Scope criteria should be risk-focused, not solely based on size.
- Stress test framework should align with internal management reporting and leverage the ORSA.
- Stress test should be principle-based and complement a company's internal stress testing methodology.
- Regulatory guidance should be provided to help define liquidity sources and uses, products/activities with liquidity risk, time horizons, level of aggregation, reporting frequency, and establishing stress scenarios.
- Public disclosure of results should be carefully considered to avoid exacerbating a liquidity crisis.

Regarding the specifics of liquidity assessments/stress test approaches, significant diversity in practices exist. Key observations in this regard included:

- Liquidity tests are performed at the material entity level and at the holding company level. Definitions of material entities differ.
- Most firms determine some sort of coverage ratio (Liquidity Sources) / (Liquidity Uses), for Base and Stress scenarios and monitor results to ensure they align with the firm's (internal) risk appetite. Categories of liquidity sources and uses differ across firms and assumptions vary depending on time horizon. Some insurers determine coverage ratios utilizing balance sheet values, applying different haircuts by asset class, time horizon and type of stress. Other insurers determine liquidity coverage gaps (Liquidity Inflows – Liquidity Outflows) utilizing a cash flow approach.
- Stress scenarios vary by company, reflecting a combination of market-driven, as well as idiosyncratic and insurer-specific scenarios.

- Time horizons tested also vary, typically ranging from 7 days to 1 year.

Regulatory Goals of the Liquidity Stress Test

- The primary goal of this liquidity stress testing, and the specific stress scenarios utilized, is for macroprudential uses – to allow the FSTF regulators to identify amounts of asset sales by insurers that could impact the markets under stressed environments. Thus, the selected stress scenarios are consciously focused on industry-wide stresses – those that can impact many insurers within a similar timeframe. These may not be the most stressful scenarios for specific legal entity insurers, or even their groups. Regulators have indicated the liquidity stress testing is also meant to assist regulators in their micro prudential supervision, in the context of being helpful for domiciliary and lead state regulators to better understand liquidity stress testing programs at those legal entities and groups. There is no intent to require these stress scenarios to be used by individual insurers for some sort of assessment or regulatory intervention mechanism. Similarly, there has not been any consideration given to requiring them in the management of any entities in receivership.
- Regulatory concerns regarding liquidity risk for legal entity insurers and/or groups is more about the stress scenarios of most concern to those entities (not those identified for macro prudential purposes). Similarly, when considering liquidity risk at a legal entity and/or group, regulators need to understand the insurer's entire risk management framework. Much of this understanding may come from the ORSA filings. Thus, the LST is not meant to be a legal entity insurer requirement, or used as a ranking tool, etc. However, it is recognized that simply reviewing these LST results may help regulators better understand the role of liquidity stress testing within the entities – which may result in more questions and information requests regarding the entities' own liquidity risk management framework and dynamics of their internal liquidity stress tests.

[Beginning of] 2021 Liquidity Stress Testing Framework – to be included as an appendix in the NAIC Financial Analysis Handbook

Section 1. Scope Criteria for Determining Groups Subject to 2021 LST

HISTORY – Scope Criteria for the Initial 2020 LST:

In determining the companies subject to the liquidity stress test (LST), consideration was given to activities assumed to be correlated with liquidity risk. Another consideration was the desirability of tying data used in the criteria back to the statutory financial statements. Ultimately six activities were identified. Those activities are Fixed and Indexed Annuities, Funding Agreements, Derivatives, Securities Lending, Repurchase Agreements and Borrowed Money. Minimum thresholds were established for each of these six activities. A life insurance legal entity or life insurance group exceeding the threshold for any of the six activities is subject to the stress test (see Annex 1 for more details).

While the scope criteria only utilize statutory annual statement data, the stress test is not similarly limited. Thus, the stress test will consider many more liquidity risk elements than the scope criteria, and internal company data will be the source for many of those elements.

Just as the liquidity stress test structure and methodology may change over time, the scope criteria may also be modified, for example, in response to new data points in the NAIC Annual Statement Blank. The scope criteria will be reviewed annually.

Using the agreed criteria, NAIC staff obtained the amounts for all life insurance legal entities from the 2018 annual statutory financial statements (filed by March 1, 2019). If two or more life insurers were part of an insurance group with an NAIC group code, then the numbers for each of those legal entity life insurers was summed together to represent an insurance group result. Thus, a legal entity life insurer not in an insurance group can meet the threshold on its own, or the sum of legal entity life insurers in a group could meet the threshold. Twenty-three insurance groups met the initial scope criteria.

In establishing whether an insurer or group met or exceeded the threshold criteria, the Subgroup members supported using the most current single year activity rather than a multi-year average. This resulted in coverage amounts ranging from 60% to 80% of the industry total for each activity based on 2018 data. It was recognized that using single year activity could result in more instances of an insurance group being in scope one year and out of scope the next, but regulators viewed it more important to have the most recent financial data utilized for determining scope. To address concerns about insurers moving in and out of scope, regulatory judgment will be used to address an insurer's exit from or entry to the scope of insurers subject to the liquidity stress test. The lead state regulator will consult with the Task Force in determining when it is appropriate to remove an insurer from the LST requirement if it no longer meets the scope criteria. Similarly, lead state regulators should have the ability to consult with the Task Force and require the LST from an insurer not meeting the scope criteria (e.g., an insurer close to triggering the scope criteria for more than one year).

CURRENT – Scope Criteria for the 2021 LST:

Regulators agreed to retain the same 6 criteria and thresholds from the 2020 LST Scope Criteria for use as the 2021 LST Scope Criteria. The 2021 LST Scope Criteria have been applied to the 2020 annual statement data (data as of Dec. 31, 2020, filed by March 1, 2021).

Section 2. Liquidity Stress Test

2.1 Summary

The stress testing framework employs a company cash flow projection approach incorporating liquidity sources and uses over various time horizons under a baseline assumption and some number of stress scenarios (for 2021 there are 2 stress scenarios and also an insurer-specific request for information). The available assets are then recorded by asset category. The framework then calls for identification of expected asset sales by category, or other funding as allowed in the stress test, to cure any cash flow deficits (liquidity uses exceed liquidity sources) under the stress scenarios. The stress tests are to be performed at the legal entity level; the aggregated group does not perform the LST.

2.2 Time Horizons

The time horizons chosen by regulators are 30 days, 90 days, and 1 year, because, overall, insurance products are designed to be for the benefit of customers as risk protection over the long term and not designed to provide short term liquidity like other financial products. Historical experience in times of stress demonstrate slow policyholder reaction in short periods of time, as opposed to an event that occurs over months or years. Features designed to protect the long-term nature of the product for the policyholders ultimately reduce the likelihood of policyholder reaction to short-term volatility in markets. Therefore, evaluating shorter than 30-day time horizons has been deemed not warranted for the overarching macroprudential purpose of gauging liquidity risk in the Life insurance industry.

Policyholders do not “run” from an insurer in times of economic stress to the extent depositors do from a bank, because insurance is purchased to obtain the protection insurance provides, not as a source of liquidity or discretionary funds. In the United States, life insurance and annuities are purchased primarily for long-term financial protections upon death or retirement. Surrendering a life insurance contract to harvest its cash surrender value would leave the policyholder without death benefit protection that would be expensive or impossible to replace at a future date. Surrendering a variable annuity contract would lock in potentially temporary decreases in account value and could result in the loss of living benefit protection that becomes more valuable when market conditions depress account values below trigger points. Further, mitigating contract features such as surrender charges and the insurer’s right to delay the processing of withdrawals and surrenders for up to 30 days are common.

There are also non-contractual mitigating factors at play, such as potential negative tax consequences, that further reduce the short-term nature of liquidity risk for life insurers.

Simply put, policyholders are highly disincentivized to give up the likely irreplaceable protection for which they have already paid. The run-like mass surrender of insurance policies would require large numbers of policyholders to act against their self-interest.

From a holistic risk perspective, liquidity stress is traditionally experienced on the asset side. One short-term consequence of market turmoil could be a requirement to post collateral in connection with existing derivative contracts. However, even in this scenario, collateral is typically posted in the form of securities, so a demand for cash is not generated.

We do acknowledge liquidity risk does exist with respect to shorter time horizons and that many insurers do consider shorter time horizons (7-days for example) as part of their internal liquidity stress testing framework. This is viewed as a cash management/Treasury function impacting the daily operations of individual insurers, however, that would not affect the industry as a whole. Hence, these considerations are typically reviewed as part of individual/microprudential surveillance efforts in the U.S.

2.3 Insurer's Internal Liquidity Stress Testing System

Insurers are to use their own internal liquidity stress testing system to perform the regulatory LST, adjusting for regulatory assumptions, metrics, etc., as specified in this document. For example, assessing materiality of stressed cash flows for inclusion in the liquidity uses and sources templates is per the insurer's own internal methodology, but determining which legal entities are to perform the LST and report on those templates is specified in this document. Insurers should provide a narrative description of their internal liquidity stress testing system and processes, including for example their materiality thresholds for stressed cash flows and methodology for converting foreign currencies to US dollars (see Section 7. Reporting). The stress scenarios may vary from year-to-year and contain variations referred to as "What-if" scenarios. The following sections provide a further description of each of the key components of the framework.

Section 3. Legal Entities Required to Perform the LST for Insurers Meeting the Scope Criteria

The scope of entities included within an insurance group for the purposes of liquidity stress testing to assess the potential for large scale liquidation of assets (i.e., the legal entities within the group which should perform the LST), should include:

- U.S. Life insurance legal entities, including reinsurers, regardless of corporate structure, so including captive (regulators specifically want all U.S. life insurance/reinsurance legal entities to perform the 2021 LST for informational purposes – future LST iterations may see a materiality consideration added);
 - Non-guaranteed/market value separate accounts are not included in the 2021 LST. However, regulators may want to perform a separate account study in the future. The current thinking is that even though non-guaranteed/market value separate accounts may experience asset sales during stressed environments, those sales are at the policyholder's discretion and do not generate liquidity stress for the insurer/group. As such they are deemed other market activity rather than insurance entity activity. Thus, for annuities that provide both non-guaranteed and guaranteed benefits, insurers should only include the cash flow impact of the guaranteed benefits.
 - Non-U.S. life insurance/reinsurance legal entities should perform the 2021 LST if they pose material liquidity risks to the U.S. group (see below on non-U.S. legal entities).
- Where applicable, holding companies that could be a source or draw of liquidity to the life insurance legal entities; and
- Non-life insurance entities and non-insurance entities with material sources of liquidity, or that carry out material liquidity risk-bearing activities and could, directly or indirectly, pose material liquidity risk to the U.S. group. This materiality consideration should occur within the context of the specific stress scenario (and “what if” modification if applicable). The materiality criteria and initial list of legal entities in scope should be reviewed by the lead state regulator and modified by the insurer as needed based on regulator direction.
 - Non-U.S. legal entities (including non-U.S. holding companies) are subject to this materiality consideration and should be subject to performing the LST if they pose material liquidity risk to the U.S. group.

- U.S. non-life insurers and reinsurers are not automatically exempted. If the U.S. non-life insurer poses material liquidity risk, per the stress scenario, to the U.S. group, then that legal entity insurer should perform the LST.
- Legal entity asset managers and mutual funds (both U.S. and non-U.S.) are **excluded** from performing the 2021 LST.
 - However, those legal entities performing the LST (e.g., holding companies that could be a source or use of liquidity for the life insurers) must reflect any material stressed cash flows from/to the legal entity asset manager/mutual fund in their 2021 LST results (e.g., the liquidity sources and liquidity uses templates, as they do with any other type of legal entity that has material stressed cash flows from/to the legal entities performing the LST).
 - If such material stressed cash flows from/to the legal entity asset manager/mutual fund exist, the regulators want specific disclosures on those in the results (either by adjusting the templates to include a line for these and/or in the narrative/explanatory disclosures submitted along with the templates).
 - Examples of when such legal entity asset manager/mutual fund considerations and disclosures would need to be made for a specific stress scenario include:
 - If the holding company or another legal entity(ies) in the group is expected to fund a material liquidity shortfall of a mutual fund/asset manager (i.e., redemptions exceed the ability to sell assets), then the expected cash flows must be reflected (especially where there are established inter-affiliate support agreements);
 - If the holding company or another legal entity(ies) in the group is expected to provide capital to the mutual fund/asset manager or is expecting dividends from them, the material expected cash flows must be reflected; and
 - If the asset manager manages financial instruments under which it retains some risk, such as new European CLOs, or has contractual risk retention agreements for US CLOs, the required risk retention limit (5% for Europe)

must be reflected if sourced from the holding company or another legal entity(ies) in the group and considered material.

- Legal entity banks (both U.S. and non-U.S.) are **excluded** from performing the 2021 LST.
 - However, those legal entities performing the LST (e.g., holding companies that could be a source or use of liquidity for the life insurers) must reflect any material stressed cash flows from/to the legal entity bank in their 2021 LST results (e.g., the liquidity sources and liquidity uses templates, as they do with any other type of legal entity that has material stressed cash flows from/to the legal entities performing the LST).
 - If such material stressed cash flows from/to the legal entity bank exist, the regulators want specific disclosures on those in the results (either by adjusting the templates to include a line for these and/or in the explanatory disclosures submitted along with the templates).
 - Examples of when such legal entity bank considerations and disclosures would need to be made for a specific stress scenario include:
 - If the holding company or another legal entity(ies) in the group is expected to fund a material liquidity shortfall of a bank, then the expected cash flows must be reflected (especially where there are established inter-affiliate support agreements); and
 - If the holding company or another legal entity(ies) in the group is expected to provide capital to the bank or is expecting dividends from them, the material expected cash flows must be reflected.

For 2021, the legal entities identified in the bullets above, per a Company's ORSA and/or other materiality criteria applied to the specific stress scenario, must be considered as material or identified as carrying out material liquidity risk bearing activities and hence subject to internal liquidity stress testing requirements. Although a legal entity in the group may not be required to perform the stress test due to materiality considerations or exemptions, those entities' material cash impacts on entities performing the stress test must be captured in the sources and uses

templates of the entities performing the LST. The insurer will need to disclose the materiality criteria (agreed upon by the Lead State regulator) used in determining the legal entities subject to the 2021 LST in the submission of its results. Based on the results of the 2020 initial LST exercise and those of the 2021 LST, the Subgroup will determine if additional materiality criteria should be developed to ensure better comparability amongst insurers.

Section 4. Cash Flow Approach – Liquidity Sources and Uses

The Liquidity Stress Testing Framework is anchored by a cash flow approach, utilizing companies' actual cash flow projections of sources and uses of liquidity over various time horizons based upon experience and expectations. This contrasts with a Balance Sheet Approach, which employs static balance sheet amounts and generic assumptions about asset liquidity. While a Balance Sheet Approach is easier to apply and provides calculation consistency (and thus the perception of increased comparability), its 'one-size fits all' approach could result in a misleading assessment of liquidity risk and fail to capture certain asset activities or product features under different stress scenarios and time horizons. The cash flow approach is deemed more dynamic and hence to capture liquidity risk impacts more precisely.

The insurer should produce cash flow projections for sources of liquidity and uses of liquidity that cover: operating items, investments and derivatives, capital items, and funding arrangements. (See Liquidity Sources and Uses templates in Section 7). To clarify an issue regarding funding arrangements, the projected cash flows for liquidity sources and uses should include already existing funding arrangements such as FHLB draws outstanding in the current time period. Also, specific to the holding company, these projected cash flows for liquidity sources and uses should include material non-U.S. impacts as well.

The insurer will produce these liquidity sources and uses cash flow projections in a baseline, normal course of business scenario, for each time horizon. The insurer will also produce these cash flows for each time horizon for a specific number of required stress scenarios (for 2021 there are 2 stress scenarios and also an insurer-specific worst-case scenario).

4.1 Baseline Assumptions for Cash flows

Baseline (pre-stress) cash flows are the insurer-specific cash flows from normal expected operations. Insurers should prepare cash flow projections under normal operating conditions and report the net cash flows (projected liquidity sources less uses) for each time horizon. These cash flow projections should be consistent with those used for internal baseline liquidity forecasts, such as those used for financial planning and analysis (FP&A), risk management, etc. A positive net cash flow is presumed in the baseline cash flows since companies are usually not expected to be operating in a net cash flow deficiency state.

Section 5. Stress Scenarios and their Assumptions

For year-end 2021 there are two regulatory liquidity stress scenarios: an adverse liquidity stress scenario for insurers, and an interest rate spike scenario. There is also an insurer-specific information request for each group's own most adverse liquidity stress scenario(s). The adverse liquidity stress scenario contains a regulator provided narrative, regulator-prescribed assumptions, and company-specific assumptions. The interest rate spike scenario allows all other narrative description components and key metrics (including how much interest rates spike) to be provided by each company. The insurer-specific information request contains a company provided narrative and a description of key company metrics. The regulator provided narrative will be a qualitative description of the specified stress scenario to highlight the particular risks and sensitivities associated with that stress scenario. The regulator prescribed assumptions are specific parameters insurers should incorporate into their process for a particular stress scenario. Company-specific assumptions should be consistent with the information provided in the regulator provided narrative and regulator prescribed assumptions, and represent the detailed assumptions needed for a specific company's liquidity stress testing process. Examples of where companies should provide their assumptions include: debt issuance, lapse sensitivity, new business sensitivity and mortality sensitivity. Regulators expect insurers to utilize policyholder behavior assumptions (e.g., surrenders and policy loan withdrawals, existence of new sales activity) as well as the insurer's response (e.g., assuming delays in payment of policyholder

benefits), consistent with the severity of the stress, and to provide very thorough explanatory information. All key business activities and product- type impacts to liquidity should be considered by the companies.

If the insurer's internal model does not utilize a specific economic and/or company-specific assumption included in this document, the internal model does not need to be modified to incorporate it. However, if the insurer's internal model does utilize a specific economic and/or company-specific assumption included in this document, the insurer should use the approach outlined below to calculate the value for that assumption. (This emphasizes the macro surveillance benefit of the 2021 LST, allowing for a level of consistency of assumptions across the industry. As discussed previously, this is not meant to specify assumptions used by the insurers in their own internal liquidity stress testing work.) If there is no specific value included in the 2021 LST Framework and instead there is an illustrative value or suggested guidance, the company should use a value consistent with the illustrative value or suggested guidance. For example, guidance is given below on using Moody's values for migration, default, and recoveries. However, insurers may use S&P data or other appropriate data sources.

[5.1 Adverse Liquidity Stress Scenario for Insurers](#)

[5.1.1 Narrative](#)

Insurers are required to apply an adverse liquidity stress scenario as one of the two stress scenarios. The following is a summary of market conditions in the adverse scenario extracted from the Federal Reserve Board's 2017 Supervisory Scenarios for Annual Stress Tests Required under the Dodd-Frank Act Stress Testing Rules and the Capital Plan Rule.

The adverse scenario is characterized by weakening economic activity across all economies included in the scenario. This economic downturn is accompanied by a global aversion to long-term fixed-income assets that, despite lower short-term rates, brings about a near-term rise in long-term rates and steepening yield curves in the United States and the four countries/country blocks in the scenario.

The economic indicator levels described below provide the backdrop for the economic climate insurers should assume in the adverse scenario. The actual levels insurers should use in the adverse scenario are provided in Annex 2.

- Macroeconomic
 - Real GDP falls slightly more than 2 percent from the pre-recession peak in the fourth quarter of 2016 to the recession trough in the first quarter of 2018
 - *Unemployment rate increases.*
 - *Headline CPI falls and then rises over the scenario period.*
- Interest Rates and Credit Spreads
 - *Short-term Treasury rates fall and remain near zero throughout the stress.*
 - *10-year Treasury yields rise.*
 - *Investment Grade (IG) corporate credit spreads widen.*
- Asset Valuations
 - *Equity prices decline by roughly 40%.*
 - *The Volatility Index (VIX) peaks at approximately 35.*
 - *Housing prices and commercial real estate prices decline through 8 quarters.*
- Description of International Market Conditions
 - *Recessions and slowdowns in growth are experienced in the Euro area, United Kingdom, Japan, and developing Asia economies.*
 - *All foreign economies experience a decline in consumer prices.*
 - *U.S. Dollar appreciates against the Euro, British Pound, and developing Asia currencies.*
 - *U.S. Dollar depreciates modestly against the Japanese Yen, driven by flight-to-safety capital flow.*

5.1.2 Regulator-Prescribed Assumptions

Insurers should utilize the values for the economic indicators from the Federal Reserve Board's annual Supervisory Scenarios for Annual Stress Tests Required under the Dodd-Frank Act Stress

Testing Rules and the Capital Plan Rule as the basis for scenario assumptions, Table A.1 Historical data and Table A.5 (Annex 2i, A) Supervisory adverse scenario. Insurers should use the version published in February 2017 (refer to the tables in Annex 2i). Specifically, insurers should run the adverse liquidity stress scenario using the deltas for the Treasury curve, Corporate spreads, GDP, Unemployment, U.S. Inflation (CPI), Housing Price Index (HPI), S&P 500 index (SPX SPOT), Commercial Real Estate Index (CREI) and VIX index. These economic variables should be used to the extent these variables are included in an insurer's internal liquidity stress test process or models.

Insurers should apply the same change in economic variables experienced between Q4 2016 Table A.1 and the stress scenarios in Table A.5 to current economic variable levels (Annex 2i, D). Insurers should use the tables in Annex 2i for an illustrative example of how the deltas from the 2017 Fed's CCAR are applied to the current reference quarter (Q4 2020) for the 2020 LST (Annex 2i, B). For example, insurers should use 2021 (or most recent year-end) 10 Yr. Treasury rates and apply the same percentage or absolute b.p. change shown from Q4 2016 to the 2017 Table A.5 amounts in their 2021 LST stress scenarios. Table C (Annex 2i, C) shows the 2017 deltas applied to 2021 year-end levels on an absolute and percentage basis for 3 month and 1-year horizons for ease of use. The deltas to apply are provided for the 30-day, 90-day and 1-year horizons. Note, the tables also include structured spread assumptions described below in section 5.1.4. The tables are included in Annex 2i of this document.

In addition, other market indicators are necessary for insurers to apply to stressed cash flows and to assess the impact on expected asset sales. These are as follows (with details to be found in Annex 2):

- Market Capacity Assumption
- Structured Spreads over Treasuries
- SWAP Spreads
- Swaption Volatility
- Credit Assumptions: Moody's Transition Matrix/Migration Rates

- Credit Assumptions: Moody's Default Table
- Credit Assumptions: Moody's Recovery Rate Table

5.1.3 Market Capacity Assumption

The following is suggested guidance to determine market constraints on asset categories to be sold in times of stress. It represents standards followed by many insurers to estimate assets sales by stress scenario, asset category and time horizon that can be sold without meaningfully impacting the entire market by widening bid-offer spreads. We recognize each company has its own individual methodology for determining potential asset sales under stress, and we request a written narrative be provided as to how they make their determination.

Once an asset class has been identified as available to be sold to satisfy a cash deficiency from cash flow stress testing, the insurer should calculate its percentage of the total amount issued and outstanding. Next the insurer should obtain average daily trading volumes (ADTV) and make an assumption for the haircut amount to apply to that volume to reflect stressed conditions (the "haircut ADTV"). Next, the insurer would apply its calculated percentage of total outstanding owned to the haircut ADTV, and the result would be divided by the number of days in the stress testing time horizon to arrive at a daily amount that can be sold. This daily amount able to be sold would be multiplied by the number of days in the prescribed time horizon: 30 days for the 30-day horizon, 60 days for the 90-day horizon (31-90 days) and 274 days for the 1-year horizon (91-365 days). An illustrative example best explains the above-described process.

Illustrative example (also included in Appendix 2ii):

Step 1: Estimate Unconstrained Sales Per Day

Insurer A has a \$100 billion portfolio of investment-grade corporate bonds, priced at par. Insurer A estimates that it holds approximately 5% of outstanding corporate bonds. In the adverse liquidity stress scenario, Insurer A's unconstrained liquidity stress testing model assumes that it can sell:

Time Horizon	% Able to Be Sold	Sale Price	Total Sale	Sales / Day
First 30 Days	10%	97	\$9.7 B	\$440 M
31-90 Days	20%	94	\$18.8 B	\$430 M
91-365 Days	50%	90	\$45.0 B	\$230 M

Step 2: Add Market Capacity Constraint

Assume the average daily trading volume in the secondary market for investment grade corporate bonds has been \$13.0 Billion over the past year. Insurer A estimates that trading volumes would decline by 40% in the adverse liquidity stress scenario to \$8.0 B per day. Since Insurer A is 5% of the market, Insurer A can only trade \$400 M per day (\$8B x 5%) without paying a significant illiquidity premium and impacting the overall market.

Insurer A then repeats this process for every asset class in its investment portfolio.

Time Horizon	Unconstrained Sales / Day	Market Capacity Assumption	Impact
First 30 Days	\$440 M	\$400 M	(\$40 M)
31-90 Days	\$430 M	\$400 M	(\$30 M)
91-365 Days	\$230 M	\$400 M	\$0

5.1.4 Structured Spreads Over Treasuries

Insurers should use Annex 2i and 2iii to assist in determining cash flows, asset values and the quantity of assets to be sold in stressed markets. For baseline values, the industry shall submit year-end spreads to the regulators shortly after year-end. The regulators will review and approve the values for use in the table for liquidity stress testing purposes. Structured spread data was derived from the JPMorgan ABS Weekly Asset Spread Datasheet. The spreads were scaled to a stressed economic environment consistent with an adverse scenario as described by the Fed, described above and adopted for this stress testing. For the 2020 LST, economic conditions experienced in March of 2020 were deemed consistent with an adverse scenario. Therefore, structured spreads from March 2020 were used as the basis for the stressed spreads assumptions for insurers to use in their stress testing scenario for the 30-day, 90-day and 1-year horizons.

Note, to calculate structured spreads for CLO/CDO 5.5-7 year and ABS Auto3 year, it was necessary to construct a Treasury yield curve with 3-year and 7-year points. These points were calculated using a straight-line linear interpolation method. For the 2021 LST, the same March 2020 structured spreads were deemed appropriate for use.

Regulators ask industry members to agree on one set of structured spread values amongst themselves to submit for approval, not each insurer submitting values that each need to be approved. Regulators and/or the NAIC need to do a reasonableness check of current baseline/market levels of spreads insurers use before applying the stressed amounts in the JPMorgan spreadsheet. For example, if current spreads are already greater than the JPMorgan stressed spread amounts, regulators may have to consider alternatives or additional stressed levels. One agreed upon set of values will help provide uniformity, consistency, and comparability of stress testing results across insurers.

When utilizing these spreads, insurers should assume the percentage increase in spreads experienced in March 2020 from the JPMorgan ABS Weekly Asset Spread Datasheet; and apply the absolute increase to the agreed upon December 31 baseline spreads. These tables are provided in Annex 2iii, A & B.

Since the reasonableness check is merely a check of current market rates, it is not anticipated that it will be burdensome for insurers to provide an agreed upon set of December 31 baseline values to regulators by January 31 of each year or for the regulators to be able to respond by February 28 of every year to allow insurers sufficient time to incorporate into their stress testing framework. Baseline amounts are included in Annex 2iii, B.

For the 2021 LST – Industry agreed upon values are to be established as Lead State guidance after the 2021 LST Framework has been adopted. Industry plans to develop an alternative process for future LST iterations which will allow NAIC staff to establish the values to include in these appendices.

5.1.5 SWAP Spreads

Stressed spread levels may impact assets prices for expected sales calculations necessary for the stress scenarios. Insurers should complete the SWAP Spread table in Annex 2iv to document assumptions used in determining asset values and the quantity of assets to be sold in stressed markets. SWAP spread source data is no longer provided in the Federal Reserve's H.15 FRED data. Use of Bloomberg Swap Spreads is preferred – if options exist within Bloomberg, identify which option was used. If a different source from Bloomberg is used, then identify the source and option.

5.1.6 Swaption Volatility

Insurers should use the table in Annex 2v to assist in determining asset values and the quantity of assets to be sold in stressed markets. Insurers should obtain the information to populate the table using Bloomberg's Swaption Volatility for various time horizons and expiry. For consistency, insurers should use the table found on Bloomberg at NSV [Go].

5.1.7 Moody's Transition Matrix/Migration Rates

Insurers should use the table in Annex 2vi to assist in determining corporate credit migrations, asset values and the quantity of assets to be sold in stressed markets. The table is imported from Moody's Corporate-Global: Annual default study, Exhibit 39 - Average one-year alphanumeric rating migration rates, 1983-2019. If available, insurers should use the equivalent Moody's tables for U.S. Public Finance for municipal bonds and the appropriate Moody's tables for structured /asset-backed securities. Alternative sources may be used but should be disclosed as well as the rationale for their use.

5.1.8 Moody's Default Table

Insurers should use the table in Annex 2vii to assist in determining asset values and the quantity of assets to be sold in stressed markets. The table is imported from Moody's Corporate-Global: Annual default study, Exhibit 45 - Average cumulative issuer-weighted global default rates by letter rating, 1983-2019. Insurers should use the equivalent Moody's tables for U.S. Public

Finance for municipal bonds and the appropriate Moody's tables for structured /asset-backed securities. Alternative sources may be used but should be disclosed as well as the rationale for their use.

5.1.9 Moody's Recovery Rate Table

Insurers should use the table in Annex 2viii to assist in determining asset values and the quantity of assets to be sold in stressed markets. The table is imported from Moody's Corporate-Global: Annual default study, Exhibit 8 - Average corporate debt recovery rates measured by ultimate recoveries, 1987-2019. Insurers should use the equivalent Moody's tables for U.S. Public Finance for municipal bonds and the appropriate Moody's tables for structured /asset-backed securities. Alternative sources may be used but should be disclosed as well as the rationale for their use.

If relevant for a given insurer, the adverse liquidity stress scenario for insurers can be run considering sources other than expected asset sales (e.g., FHLB credit line draws, bank lines of credit and holding company contributions). Should that be the case, the insurer must clearly identify the sources other than asset sales utilized to meet expected liquidity deficiencies.

5.1.10 "What If" Modification

The "What if" modification to the adverse liquidity stress scenario removes the ability for insurers to use extraordinary internal and external funding sources to satisfy any liquidity deficiency under stress, i.e., no actions taken in response to the stress (as opposed to ongoing operational funding agreements included in the insurer's baseline templates) or in response to a liquidity deficiency. Intragroup "keep well" agreements would be considered extraordinary transactions. Thus, expected asset sales will be the primary source of meeting any liquidity deficiency for the "What if" scenario. Any existing funding such as commercial paper will not be assumed to roll, nor will FHLB facilities ability to roll upon maturity.

5.1.11 Company-Specific Assumptions

Insurers must construct the assumptions needed for their internal models to run the above adverse liquidity stress scenario for insurers. Company specific assumptions should be consistent with the above scenario as narrative and regulator prescribed assumptions. Examples include the

inability to roll or issue new debt, potential increases in lapse rates, new business sensitivity, mortality experience and policyholder behavior (e.g., surrenders and policy loans).

5.2 Interest Rate Spike Scenario

5.2.1 Narrative

Insurers should run an interest rate spike stress test that resembles the late 70's/early 80's inflationary period as it most closely mirrors the regulatory desired interest rate spike scenario. Historical data from the late 70's/early 80's show the following economic conditions:

- Inflationary forces caused interest rates to rise quickly.
- Investors rotated out of fixed income and into equities, real estate, and commodities.
- Central bank responded by tightening monetary policy in tandem, eventually causing the yield curve to invert.

Insurers should provide a detailed narrative outlining their scenario and assumptions around general economic conditions bulleted above and specific assumptions for economic variables for each time horizon. The economic variables in the table below and the amount of expected movement in each variable should be fully described in the narrative to the extent are used in a company's internal model. The table outlines the directional movement of the relevant economic indicators. Insurers should specify the amount of movement for each variable they consider to be part of the scenario for a severe interest rate spike. For example, insurers may indicate a parallel shift in Treasury rates up 100bps in the first 30 days, up 200bps in 90 days and 300bps over 12 months. The table is a guide and not to be interpreted as a strict template and may be supplemented or customized by the insurer. Narrative/Explanatory disclosures should explain these assumptions.

5.2.2 Regulator-Prescribed Assumptions

Regulators did not adopt any regulator-prescribed assumption values for this stress scenario. Instead, they provided the below regulator guidance for insurers to use when establishing their own company specific assumptions for this stress scenario.

Economic Variable	Expected Movement	Comments
Treasury rates	Increase rapidly	Critical factors for modeling impacts to asset prices, collateral flows, and product cash flows
Equity prices	Increase rapidly	
Credit spreads	Increase moderately	
Inflation rates	Increase rapidly	These factors help define the macroeconomic conditions of the scenario
Real GDP growth	Flat	These factors help define the macroeconomic conditions of the scenario
Unemployment rate	Flat	
Real estate prices	Increase	
Swap spreads	Increase	Impact derivative collateral requirements
FX rates	Unclear	
Implied volatility	Increase	
Credit assumptions (transition, default, recovery rates)	Unclear	May not be an important assumption to define for the scenario

5.2.3 Company-Specific Assumptions

Insurers must construct the assumptions needed for their internal models to run the above stress scenario. Companies are encouraged to provide more information beyond these guidelines as they feel is appropriate to help regulators understand their assumptions for the scenario. Company specific assumptions should be consistent with the stress scenario's narrative and regulator prescribed assumptions.

5.3 Insurer Specific Information Request - Worst-Case Scenario

5.3.1 Narrative

This information request requires insurers to provide a detailed narrative of their most severe liquidity stress scenario(s) to obtain greater insight to the drivers of liquidity risk for specific insurers. The most severe scenario should be one that results in the largest liquidity deficiency (liquidity sources less uses) from their existing internal liquidity stress testing process. The

scenario should be focused on the insurers internal model scenario with the worst-case outcome for the group. Regulators may use this information to inform future prescribed stress scenarios.

Insurers should provide a comprehensive narrative describing the stress scenario(s) and the economic environment(s). This stress scenario(s) could be a combination of multiple stressors.

Section 6. Available and Expected Asset Sales

Once the stressed sources and uses of liquidity have been established, and the net cash flows calculated, insurers then project the assets available at the end of the time horizon by asset category (please refer to the asset categories in the Assets Template in Section 7). The valuation of available assets for the baseline scenario utilizes current and projected asset values for a normal operating environment. The valuation of available assets for a stress scenario will be based upon fair value haircuts per the specific stress scenario narrative, its regulatory prescribed assumptions, and/or the company assumptions based on the narrative and regulatory prescribed assumptions (e.g., fair market value haircuts and capacity indicators). Note: Any securities pledged as part of institutional funding agreements (e.g., FHLB) should be excluded and considered encumbered. However, any pre-pledged assets that are not securing credit that has been extended and remains outstanding (i.e., excess) should be considered unencumbered.

To the extent that stressed cash inflows are insufficient to meet the anticipated cash outflows, the insurer must provide for cash flows to meet the deficiency. Unless a stress scenario (or “What-if” modification of a stress scenario) indicates otherwise, the insurer can utilize internal and external funding sources (e.g., FHLB new draws) as well as asset sales to satisfy a liquidity deficiency. Any expected asset sales must be reported in the appropriate column(s) of the template. Insurers decide which categories of available assets to sell, as well as the quantity to sell. (Please refer to the Assets Template in Section 7.)

Asset sales will appear in two different places - 1) within the liquidity sources template for expected/planned activity during the time horizon (pre-liquidity deficiency calculation), and 2) in the assets template for any amount of asset sales used to meet a liquidity deficiency (Liquidity Sources less Liquidity Uses). If an insurer has no liquidity deficiency, then there are no asset sales

needed in the Assets Template (though available assets still apply). Similarly, if cash on hand was sufficient to meet the liquidity deficiency and the insurer chose to utilize that cash, then no asset sales would be reported in the Assets template.

The expected asset sales amounts calculated based on the insurer's own models should also be subjected to portfolio manager and/or Chief Investment Officer (CIO) feedback. This feedback may take the form of "topside" adjustments to the expected asset sales. Regulators expect robust disclosures around the chief investment officer's (or equivalent title or designee) assumptions and decisions on expected asset sales. The intent is for these asset sales to most accurately represent what actions the insurer could reasonably take in the given scenario, market conditions, and the company's anticipated investment policy and/or strategy.

Section 7. Reporting

Insurers should submit data in the reporting template for liquidity sources, liquidity uses, and assets (available assets and expected asset sales) in US dollars. These templates utilize categories for 30-day, 90-day and 1-year time horizons. The assets template further illustrates available assets and final expected asset sales by asset sub-category to cover any liquidity deficiency (negative amounts of net liquidity sources less liquidity uses over the prescribed time horizons). Use of these consistent sub-categories of assets is critical for allowing the Task Force to aggregate the asset sales results.

Liquidity Sources and Liquidity Uses Templates:

A liquidity sources report and a liquidity uses report should be generated for each legal entity within the group that was subjected to liquidity stress testing, using the NAIC templates. These legal entity amounts should also be aggregated into a group liquidity sources report and a group liquidity uses report for submission (the LST is not performed at the group level; rather it is performed at the legal entity level and those results are aggregated to present a group level report).

- For the Baseline, the Adverse Liquidity stress scenario, and the Interest Rate Spike stress scenario, Liquidity Sources and Liquidity Uses templates at both the individual entity level and the aggregated group level are to be submitted.
- For the insurer's own "Worst Case" scenario, only the group level Liquidity Sources and Liquidity Uses templates are required to be submitted, not the legal entity templates.
- For the "What If" Variation of the Adverse Liquidity stress scenario, a group level Liquidity Sources template and/or a group level Liquidity Uses template is only required if there is a material difference from the Adverse Liquidity stress scenario's group level Liquidity Sources and Liquidity Uses templates.

Assets Template:

As with the Liquidity Uses and Liquidity Sources templates, the Assets template is to be generated for each legal entity performing the LST. For the 2021 LST, the insurer may submit the assets template at the group level only, without submission of the legal entity asset sales templates.

- A group level assets template is required for the Baseline and all stress scenarios, including the insurer's own "Worst Case" scenario and the "What If" variation of the Adverse Liquidity stress scenario.

Modification of Templates:

Insurers are allowed to add lines to the templates to provide more detailed breakdown of existing categories (e.g., for cash flows to/from legal entity asset manager/mutual funds as well as banks), but deletions of existing lines/categories are highly discouraged.

Submission Deadline:

The reporting templates and many other narrative disclosures referenced in this document are to be submitted to the Lead State by June 30, 2022.

Section 8. Templates

8.1 Liquidity Sources Template

Cash Flow	CF Type	CF Category	Group Summary			Legal Entity 1		
			1 Month	3 Month	12 Month	1 Month	3 Month	12 Month
Sources	Operating	Premiums and Deposits (Renewal / New Business)	-	-	-	-	-	-
		Cash Charges / Fees	-	-	-	-	-	-
		Reinsurance Recoverables	-	-	-	-	-	-
		Expenses – Intercompany Settlements	-	-	-	-	-	-
		Tax Payments (Inflows)	-	-	-	-	-	-
		Other Flows	-	-	-	-	-	-
			-	-	-	-	-	-
	Investment and Derivatives	Principal and Interest	-	-	-	-	-	-
		Dividends / Distributions	-	-	-	-	-	-
		Initial and Variation Margin Received	-	-	-	-	-	-
		Other Collateral Received	-	-	-	-	-	-
		Asset Sales (Pending Settlement)	-	-	-	-	-	-
		Other Flows	-	-	-	-	-	-
			-	-	-	-	-	-
	Capital	Capital Contributions	-	-	-	-	-	-
		Commitments	-	-	-	-	-	-
		Dividends from Subsidiaries	-	-	-	-	-	-
		Other Flows	-	-	-	-	-	-
			-	-	-	-	-	-
	Funding	Debt Issuance / Refinancing	-	-	-	-	-	-
		GICs	-	-	-	-	-	-
		FHLB	-	-	-	-	-	-
		Repo / Securities Lending	-	-	-	-	-	-
		Credit Facilities (Incl. Contingency Funding Facilities)	-	-	-	-	-	-
		Intercompany Loans	-	-	-	-	-	-
		Commercial Paper	-	-	-	-	-	-
		Other Flows	-	-	-	-	-	-
			-	-	-	-	-	-
		-	-	-	-	-	-	
Total Sources (before Asset Sales)			-	-	-	-	-	-

Note 1: Certain flows could be settled in securities (e.g., margins on derivatives, capital contributions/dividends, etc.). See the more specific Security Collateral guidance within the Excel templates.

Note 2: Asset Sales (pending settlement) should include trades executed prior to the reporting date with a known settlement date after the reporting date (for example 12/30 trade date and 01/03 settle date).

Note 3: Asset Commitments should include anticipated cash flows related to settlement of a future obligation to a counterparty to the extent, and in the amount, appropriate for the specific stress scenario and economic assumptions. Examples could include capital calls for alternative investments, mortgage loan fundings, etc., and should include each company's best estimate as to what they would expect to fund under each scenario. If these commitments have been explicitly prefunded/collateralized by highly liquid assets, asset commitments should be reported on a net basis, including proceeds from the sale of the highly liquid assets in an amount consistent with the specific stress scenario and economic assumptions. This line item may include some percentage amount of commitments to fund private placement revolvers consistent with the specific stress scenario and economic assumptions, but revolvers and lines of credit themselves should be captured in the credit facilities line in the Sources Funding section.

8.2 Liquidity Uses Template

Cash Flow	CF Type	CF Category	Group Summary			Legal Entity 1		
			1 Month	3 Month	12 Month	1 Month	3 Month	12 Month
Uses	Operating	Non-Elective Benefits / Claims	-	-	-	-	-	-
		Elective Benefits / Claims	-	-	-	-	-	-
		Commissions	-	-	-	-	-	-
		Reinsurance Payables	-	-	-	-	-	-
		Expenses - Other	-	-	-	-	-	-
		Expenses - Intercompany Settlements	-	-	-	-	-	-
		Insurance Product Commitments	-	-	-	-	-	-
		Tax Payments (Outflows)	-	-	-	-	-	-
		Other Flows	-	-	-	-	-	-
			-	-	-	-	-	-
	Investment and Derivatives	Asset Commitments	-	-	-	-	-	-
		Initial and Variation Margin Paid	-	-	-	-	-	-
		Other Collateral Pledged	-	-	-	-	-	-
		Asset Purchases (Pending Settlement)	-	-	-	-	-	-
		Other Flows	-	-	-	-	-	-
			-	-	-	-	-	-
	Capital	Shareholder/Policyholder Dividends	-	-	-	-	-	-
		Capital Contributions to Subsidiaries	-	-	-	-	-	-
		Dividends to Parent	-	-	-	-	-	-
		Other Flows	-	-	-	-	-	-
			-	-	-	-	-	-
	Funding	Debt Maturities / Debt Servicing	-	-	-	-	-	-
		GICs Benefits / Maturities	-	-	-	-	-	-
		FHLB	-	-	-	-	-	-
		Repo / Securities Lending	-	-	-	-	-	-
		Credit Facilities (Incl. Contingency Funding Facilities)	-	-	-	-	-	-
		Intercompany Loans	-	-	-	-	-	-
		Other Flows	-	-	-	-	-	-
			-	-	-	-	-	-
		Total Uses	-	-	-	-	-	-

Note 1: Certain flows could be settled in securities (e.g., margins on derivatives, capital contributions/dividends, etc.). See the more specific Security Collateral guidance within the Excel templates.

Note 2: Asset Purchases (pending settlement) should include trades executed prior to the reporting date with a known settlement date after the reporting date (for example 12/30 trade date and 01/03 settle date).

Note 3: Asset Commitments should include anticipated cash flows related to settlement of a future obligation to a counterparty to the extent, and in the amount, appropriate for the specific stress scenario and economic assumptions. Examples could include capital calls for alternative investments, mortgage loan fundings, etc., and should include each company's best estimate as to what they would expect to fund under each scenario. If these commitments have been explicitly prefunded/collateralized by highly liquid assets, asset commitments should be reported on a net basis, including proceeds from the sale of the highly liquid assets in an amount consistent with the specific stress scenario and economic assumptions. This line item may include some percentage amount of commitments to fund private placement revolvers consistent with the specific stress scenario and economic assumptions, but revolvers and lines of credit themselves should be captured in the credit facilities line in the Sources Funding section.

8.3 Assets Template

Cash and Invested Assets Available for Sale		Group Summary		
Asset Category	Asset Sub-Category	1 Month	3 Month	12 Month
Cash	Cash & Cash Equivalents	-	-	-
Government Securities	Treasury & Agency Bonds	-	-	-
	Other IG Sovereigns & Regional Government	-	-	-
	Below IG Sovereigns & Regional Government	-	-	-
	Agency CMO	-	-	-
	Agency MBS	-	-	-
	Agency CMBS	-	-	-
	Agency ABS	-	-	-
Public Bonds	IG Public Corporate Bonds	-	-	-
	IG Municipal Bonds	-	-	-
	Below IG Public Corporate Bonds	-	-	-
	Below IG Municipal Bonds	-	-	-
Private Bonds	IG Private Placement Bonds	-	-	-
	IG 144As	-	-	-
	Below IG Private Placement Bonds	-	-	-
	Below IG 144As	-	-	-
Non-Agency Structured Debt	IG CMO	-	-	-
	IG MBS	-	-	-
	IG CMBS	-	-	-
	IG ABS	-	-	-
	IG CLO	-	-	-
	Below IG CMO	-	-	-
	Below IG MBS	-	-	-
	Below IG CMBS	-	-	-
	Below IG ABS	-	-	-
	Below IG CLO	-	-	-
Equity	Common Stock	-	-	-
	Preferred Stock	-	-	-
	Other Equity and Alternative Investments	-	-	-
Other	Commercial, Residential, Agricultural, Bank and Other Loans	-	-	-
	Net Security Collateral Posted	-	-	-
	Other	-	-	-
Total Invested Assets Available for Sale		-	-	-

Scenario		Confidential--For Discussion Purposes Only, Do Not Distribute			Summary			Group Summary			Legal Entity 1		
As of Date								1 Month	3 Month	12 Month	1 Month	3 Month	12 Month
					Total Sources (before Asset Sales)			-	-	-	-	-	-
					Total Uses			-	-	-	-	-	-
					Net Sources & Uses (Deficit before Asset Sales)			-	-	-	-	-	-
					Total Invested Assets Available for Sale			-	-	-	-	-	-
					Cash applied to deficit			-	-	-	-	-	-
					Deficit Sub-total			-	-	-	-	-	-
					Total Assets Sold			-	-	-	-	-	-
					Deficit satisfied if zero or greater			-	-	-	-	-	-

Final Expected Asset Sales After Adjustments		Group Summary		
Asset Category	Asset Sub-Category	1 Month	3 Month	12 Month
Cash	Cash & Cash Equivalents	-	-	-
Government Securities	Treasury & Agency Bonds	-	-	-
	Other IG Sovereigns & Regional Government	-	-	-
	Below IG Sovereigns & Regional Government	-	-	-
	Agency CMO	-	-	-
	Agency MBS	-	-	-
	Agency CMBS	-	-	-
	Agency ABS	-	-	-
Public Bonds	IG Public Corporate Bonds	-	-	-
	IG Municipal Bonds	-	-	-
	Below IG Public Corporate Bonds	-	-	-
	Below IG Municipal Bonds	-	-	-
Private Bonds	IG Private Placement Bonds	-	-	-
	IG 144As	-	-	-
	Below IG Private Placement Bonds	-	-	-
	Below IG 144As	-	-	-
Non-Agency Structured Debt	IG CMO	-	-	-
	IG MBS	-	-	-
	IG CMBS	-	-	-
	IG ABS	-	-	-
	IG CLO	-	-	-
	Below IG CMO	-	-	-
	Below IG MBS	-	-	-
	Below IG CMBS	-	-	-
	Below IG ABS	-	-	-
	Below IG CLO	-	-	-
Equity	Common Stock	-	-	-
	Preferred Stock	-	-	-
	Other Equity and Alternative Investments	-	-	-
Other	Commercial, Residential, Agricultural, Bank and Other Loans	-	-	-
	Net Security Collateral Posted	-	-	-
	Other	-	-	-
Total Invested Assets Final Sale		-	-	-

Note 1: Insurers will enter “Illiquid” in a data field for any asset category deemed such within a specific time horizon.

(Regulators can then follow up with questions later if there are concerns, etc.)

Note 2: Any securities pledged as part of institutional funding agreements (e.g., FHLB) should be excluded and considered encumbered. However, any pre-pledged assets that are not securing credit that has been extended and remains outstanding (i.e., excess) should be considered unencumbered.

Note 3: Reminder that regulators want robust disclosures regarding the chief investment officer’s (or equivalent title or designee) assumptions and decisions on expected asset sales. Might need to supplement the template comments with additional narrative disclosures.

Note 4: Excluding the “What If” variation, insurers are to provide disclosures indicating when affiliated amounts are provided to assist a legal entity in addressing a liquidity deficiency.

Narrative/Explanatory Disclosures noted in the 2021 LST

Narrative/explanatory disclosures are expected to be in English.

- Insurers should provide a narrative description of their internal liquidity stress testing system and processes, including for example their materiality thresholds for stressed cash flows and methodology for converting foreign currencies to US dollars.
- Specific disclosures on material stressed cash flows to/from legal entity banks/asset managers/mutual funds if needed.
- Company-specific narrative on assumptions and metrics used for the adverse liquidity stress scenario for insurers, for example the inability to roll or issue new debt, potential increases in lapse rates, new business sensitivity, mortality experience and policyholder behavior (e.g., surrenders and policy loans).
- Company-specific narrative on the interest rate shock scenario, assumptions around general economic conditions bulleted in 5.2.1 Narrative, and specific metrics for economic variables for each time horizon. The economic variables in the table in 5.2.2 Regulator-Prescribed Assumptions should be fully described in the narrative, to the extent they are used in the company's internal model.
- Insurers should provide a comprehensive narrative describing their worst-case liquidity stress scenario(s) and the economic environment(s), including assumptions, key metrics and results.
- Written narrative on the insurer's own individual methodology for determining asset sales under stress.
- Robust disclosures regarding the chief investment officer's (or equivalent title or designee) assumptions and decisions on expected asset sales, if needed.
- Excluding the "What If" variation, disclosures to identify when affiliated amounts are contributed to assist a legal entity in addressing a liquidity deficiency.
- Disclose when a regulatory prescribed variable is not used for the LST because it is not used in the internal liquidity stress testing process or models.

[End of 2021 Liquidity Stress Testing Framework – to be included as an appendix in the NAIC Financial Analysis Handbook]

Data Aggregation

Given the NAIC's primary focus is on macroprudential impacts of a liquidity stress impacting the life insurance sector, the NAIC will aggregate final expected asset sales data across the insurance groups subject to the liquidity stress test. The aggregation will be done by asset category. The NAIC aims to compare the aggregated results against various benchmarks, potentially including normal and/or stressed trading volumes and asset values for various asset classes, to determine the impact such sales may have on the capital markets in times of stress. Findings from this analysis may also inform expected asset sale assumptions utilized in future runs of the liquidity stress test.

As part of its macroprudential surveillance, the insurance regulators and/or NAIC may reach out to other regulatory agencies to discuss aggregate results that may impact other regulated industries such as banks, securities brokers, and asset managers. Insurance regulators may also coordinate with other agencies to identify appropriate and perhaps coordinated action they may take to prevent or minimize the effect large asset sales may have on the financial markets and overall economy.

Regulatory Authority

For the 2020 liquidity stress test, lead state regulators utilized their examination authority to collect the reporting results from insurers and to keep the data confidential. A long-term solution was developed at the Financial Stability (EX) Task Force in coordination with addressing similar issues related to the Group Capital Calculation project, resulting in revisions to Model #440. However, it will take several years for states to adopt these revisions. As a result, regulators will utilize their examination authority for the 2021 LST as well.

Confidentiality

For the 2020 liquidity stress test, lead state regulators utilized their examination authority to collect the reporting results from insurers identified by the scope criteria. Existing protocols for collecting confidential/sensitive data for each state and insurer were utilized. A long-term solution was developed at the Financial Stability (EX) Task Force in coordination with addressing similar issues related to the Group Capital Calculation project, resulting in revisions to Model #440. However, it will take several years for states to adopt these revisions. As a result, regulators will utilize their examination authority for the 2021 LST as well.

Timeline

- January 2022 – Incorporate all appropriate Lead State Guidance into the 2020 LST Framework document as the starting place for the 2021 LST Framework and begin work on changes specific to the 2021 LST.
- Regulators agreed to make no substantive changes for the 2021 LST Framework, including the Scope Criteria. Minor template revisions and clarity improvements to the 2021 LST Framework document need to be finalized early in 2022 to allow insurers adequate time to generate the 2021 LST filings in time for the June 30, 2022, filing deadline; ideally by the end of January 2022.
- Any additional revisions necessary after adoption by the Financial Stability (E) Task Force, such as updates to Annex 2 for 2021 values, will be implemented as Lead State Guidance.

Annex 1: Original Scope Criteria with Annual Statement References

The Subgroup proposes to include in the scope of the Liquidity Stress Testing Framework any insurer/group that exceeds the following thresholds for any of the noted activities (or account balance as a proxy for that activity). The thresholds have been established taking into consideration both the account balance of the insurer/group to the total balance for the life insurance sector, as well as the aggregate account balance of insurers/groups within scope to the aggregate account balance for the life insurance sector.

Account Balances	Threshold in \$B "greater than"	Reference to 2017 NAIC life/accident and health (A&H) annual financial statement blank
Fixed and Indexed Annuities	25	Analysis of Increase in Annuity Reserves <u>Page</u> : Supplement 62 <u>Line</u> : Reserves December 31, current year (15) <u>Column</u> : Sum of Individual Fixed Annuities, Individual Indexed Annuities, Group Fixed Annuities, and Group Indexed Annuities
Funding Agreements and GICs ⁱ	10	Deposit-Type Contracts <u>Page</u> : Exhibit 7 – Deposit-Type Contracts <u>Line</u> : 9 <u>Column</u> : Guaranteed Investment Contracts (Column 2) + <u>Column</u> : Premium and Other Deposit Funds (Column 6) IF the amount of FHLB Funding Reserves from Note 11.B(4)(b) suggests funding agreements are not reported in Column 2 of Exhibit 7 + Synthetic GICS <u>Page</u> : Exhibit 5 – Interrogatories <u>Line</u> : 7.1
Derivatives–Notional Value (absolute value)	75	Derivatives – Notional Value (absolute value) <u>Pages</u> : Schedule DB, Part A; Schedule DB, Part B, Section 1 <u>Column</u> : Notional Value (sum all)
Securities Lending	2	Securities Lending Collateral Assets <u>Pages</u> : Schedule DL, Part 1; Schedule DL, Part 2 <u>Line</u> : Total (9999999) <u>Column</u> : Fair Value
Repurchase Agreements	1	Repurchase Agreements <u>Page</u> : Notes to Financial Statement Investments Restricted Assets <u>Line</u> : Sum of 05L1C, 05L1D, 05L1E, 05L1F <u>Column</u> : Total (General Account Plus Separate Account)

Borrowed Money (includes commercial papers, letters of credit, etc.)	1	Borrowed Money <u>Page:</u> Liabilities <u>Line:</u> Borrowed Money (22) <u>Column:</u> Current Year
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ⁱ In performing the addition of the FHLB funding agreement amount to the GICs amount, NAIC staff discovered that the reporting of FHLB funding agreements is not consistent in Exhibit 7, Deposit-Type Contracts. The source of the FHLB amount is Note 11.B(4)(b):

Line: Funding agreements, current year, amount as of the reporting date, borrowing from FHLB, collateral pledged to FHLB Column: Funding Agreement Reserves Established

For some insurers, we were able to match amounts from the FHLB funding agreement footnote to the exact same amount in Exhibit 7, either Column 2 (GICs) or Column 6 (Premiums and Other Deposit Funds). For those insurers where the FHLB amount matched Exhibit 7, Column 2, we did not add the FHLB funding agreement amount to the GICs amount, because that would be double-counting the FHLB funding agreements. For other insurers, even though the amounts did not match exactly, we were able to assume the FHLB funding agreements were reported in either Column 2 or Column 6 (e.g., the amount in Exhibit 7, Column 2 was zero or much smaller than the FHLB note, while the Column 6 amount was larger). However, for several insurers, we were not able to make an informed assumption (e.g., both Column 2 and Column 6 amounts were larger than the FHLB funding agreement amount). To be conservative in these instances, we added the FHLB funding agreement amount to the GICs amount. Overall, for the \$10 billion threshold, adding FHLB funding agreements to GICs does not result in a different list of insurance groups from the list with GICs of more than \$10 billion.

Annex 2: Regulatory Prescribed Assumptions

Annex 2i. Economic and Market Variables

A. Fed reference Table A.5 Adverse Scenario

2017 CCAR Adverse Scenario

Date	Real GDP growth	Nominal GDP growth	Real disposable income growth	Nominal disposable income growth	Unemployment rate	CPI inflation rate	3-month Treasury rate	5-year Treasury yield	10-year Treasury yield	BBB corporate yield	Mortgage rate	Prime rate	Level			
													Dow Jones Total Stock Market Index	House Price Index	Commercial Real Estate Price Index	Market Volatility Index
Q1 2017	-1.5	0.9	0.7	2.4	5.2	1.8	0.1	1.7	2.3	5.6	4.7	3.3	15,960	181	291	37.1
Q2 2017	-2.8	-0.7	-0.6	1.1	5.8	1.8	0.1	1.8	2.4	5.9	4.9	3.3	15,042	179	283	32.7
Q3 2017	-2.0	0.0	-0.5	1.1	6.3	1.8	0.1	1.8	2.5	6.1	5.1	3.3	14,290	176	275	34.4
Q4 2017	-1.5	0.5	-0.5	1.2	6.8	1.8	0.1	1.9	2.5	6.2	5.2	3.2	13,982	173	267	32.0
Q1 2018	-0.5	1.4	0.2	1.9	7.1	1.8	0.1	1.9	2.6	6.0	5.2	3.2	14,367	170	259	28.5
Q2 2018	1.0	3.0	0.6	2.4	7.3	2.0	0.1	1.9	2.7	5.8	5.2	3.2	15,001	166	254	25.8
Q3 2018	1.4	3.3	1.0	2.7	7.4	2.0	0.1	2.0	2.7	5.6	5.1	3.2	15,693	163	250	23.6
Q4 2018	2.6	4.4	1.5	3.4	7.3	2.1	0.1	2.0	2.7	5.4	5.1	3.2	16,603	161	249	21.6
Q1 2019	2.6	4.3	1.6	3.5	7.2	2.1	0.1	2.0	2.7	5.2	5.0	3.2	17,519	161	249	20.1
Q2 2019	3.0	4.6	2.1	3.8	7.1	2.0	0.1	2.0	2.7	5.0	4.9	3.2	18,514	161	251	18.7
Q3 2019	3.0	4.5	2.2	3.8	7.0	2.0	0.1	2.0	2.7	4.8	4.8	3.2	19,243	162	255	18.2
Q4 2019	3.0	4.5	2.1	3.8	6.9	1.9	0.1	2.0	2.7	4.7	4.8	3.2	20,025	163	259	17.6
Q1 2020	3.0	4.5	2.0	3.5	6.8	1.8	0.1	2.0	2.7	4.5	4.7	3.2	20,867	164	262	17.3

"Adverse Scenario":
BBB corporate yield spread is 3.7% at its peak in Q4:2017 when financial conditions are generally at their most acute

Narrative: "The U.S. economy experiences a moderate recession. Real GDP falls slightly more than 2 percent from the pre-recession peak, while the unemployment rate rises steadily, peaking at about 7½ percent in the third quarter of 2018. The U.S. recession is accompanied by an initial fall in inflation through the third quarter of 2017, with the rate of increase in consumer prices then rising steadily and reaching 2 percent by the middle of 2018. Reflecting weak economic conditions, short-term interest rates in the United States fall and remain near zero for the rest of the scenario period. With the increase in term premiums, 10-year Treasury yields gradually rise to a little less than 2½ percent by the second half of 2018. Financial conditions tighten for corporations and households during the recession. Spreads between investment-grade corporate bond yields and 10-year Treasury yields widen to about 3½ percentage points by the end of 2017, while spreads between mortgage rates and 10-year Treasury yields widen to about 2½ percentage points over the same period. Asset prices decline in the adverse scenario accompanied by a rise in equity market volatility. Aggregate house prices and commercial real estate prices experience less sizable but more sustained declines compared to equity prices; house prices fall 12 percent through the first quarter of 2019 and commercial real estate prices fall 15 percent through the fourth quarter of 2018. Following the recession in the United States, real activity picks up slowly at first and then gains momentum; growth in real U.S. GDP accelerates from an increase of 1 percent at an annual rate in the second quarter of 2018 to an increase of 3 percent at an annual rate by the middle of 2019. The unemployment rate declines modestly."

Source: Federal Reserve

Source: 2017 Supervisory Scenarios for Annual Stress Tests Required under the Dodd-Frank Act Stress Testing Rules and the Capital Plan Rule

<https://www.federalreserve.gov/publications/2017-june-dodd-frank-act-stress-test-appendix-a-supervisory-scenarios.htm>

B. Economic data deltas to apply to current levels

Assumptions for all companies to use:

	Inputs to Use		
	Adverse: 1 Mo	Adverse: 3 Mo	Adverse: 12 mo
Real GDP Growth	-1.5	-1.5	-1.5
Nominal GDP Growth	0.9	0.9	0.5
Real Disposable Income Growth	0.7	0.7	-0.5
Nominal Disposable Income Growth	2.4	2.4	1.2

- Use 3 month value for 1 month horizon since CCAR does not prescribe monthly values.

	Deltas to Apply		
	Adverse: 1 Mo	Adverse: 3 Mo	Adverse: 12 mo
Unemployment	0.2	0.5	2.1
CPI Inflation Rate	-0.5	-1.6	-1.6
3M Treasury	-0.1	-0.3	-0.3
3Y Treasury	0.0	-0.1	0.0
5Y Treasury	0.0	0.0	0.2
7Y Treasury	0.0	0.0	0.2
10Y Treasury	0.0	0.1	0.3
BBB Corporate Yield	0.5	1.5	2.1
Agency MBS 10 Year Yield	0.0	0.1	1.1
Non-Agency MBS 10 Year AA Yield	0.3	0.9	4.1
CMBS 10 Year AA Yield	0.3	0.9	4.2
CLO/CDO 5.5-7 Year AA Yield	0.2	0.7	3.4
ABS -Cards 5 Year AAA Yield	0.2	0.6	2.7
ABS-Auto Near prime 3 year AAA Yield	0.1	0.2	1.7
Mortgage Rate	0.3	0.8	1.3
Prime Rate	-0.1	-0.2	-0.3
Dow Jones	-10%	-31%	-40%
House Price Index	-0.4%	-1.1%	-5.5%
Commercial Real Estate Price Index	-0.3%	-1.0%	-9.2%
VIX	4.9	14.6	9.5

- 1 month delta is 1/3 of 3 month value

C. Deltas added to Q4 2020 levels

Reference Quarter (Q420 for 2021 LST)		absolute method		percent method		proposal		notes
	Ref Quarter (Q420)	Adverse: 3 Mo	Adverse: 12 mo	Adverse: 3 Mo	Adverse: 12 mo	Adverse: 3 Mo	Adverse: 12 mo	
Real GDP Growth	3.7	-0.9	-0.9	-1.8	-1.8	-1.5	-1.5	-use actual amount from CCAR
Nominal GDP Growth	5.5	0.3	-0.1	0.8	0.5	0.9	0.5	-use actual amount from CCAR
Real Disposable Income Growth	-8.1	-9.0	-10.2	-3.5	2.5	0.7	-0.5	-use actual amount from CCAR
Nominal Disposable Income Growth	-7.5	-9.6	-10.8	-4.0	-2.0	2.4	1.2	-use actual amount from CCAR
Unemployment	6.8	7.3	8.9	7.5	9.8	7.3	8.9	-use absolute delta for rate variables
CPI Inflation Rate	2.2	0.6	0.6	1.2	1.2	0.6	0.6	-use absolute delta for rate variables
3M Treasury	0.1	-0.2	-0.2	0.0	0.0	-0.2	-0.2	-use absolute delta for rate variables
3Y Treasury	0.2	0.1	0.2	0.2	0.2	0.1	0.2	-use absolute delta for rate variables
5Y Treasury	0.4	0.4	0.6	0.4	0.4	0.4	0.6	-use absolute delta for rate variables
7Y Treasury	0.6	0.6	0.8	0.6	0.7	0.6	0.8	-use absolute delta for rate variables
10Y Treasury	0.9	1.0	1.2	0.9	1.0	1.0	1.2	-use absolute delta for rate variables
BBB Corporate Yield	2.3	3.8	4.4	3.1	3.5	3.8	4.4	-use absolute delta for rate variables
Agency MBS 10 Year Yield	1.4	1.5	2.6	1.5	2.0	1.5	2.6	-use absolute delta for rate variables
Non-Agency MBS 10 Year AA Yield	2.3	3.2	6.5	2.9	5.1	3.2	6.5	-use absolute delta for rate variables
CMBS 10 Year AA Yield	2.2	3.1	6.4	2.8	4.7	3.1	6.4	-use absolute delta for rate variables
CLO/CDO 5.5-7 Year AA Yield	2.5	3.1	5.8	2.9	4.6	3.1	5.8	-use absolute delta for rate variables
ABS -Cards 5 Year AAA Yield	1.0	1.6	3.7	1.2	2.2	1.6	3.7	-use absolute delta for rate variables
ABS-Auto Near prime 3 Year AAA Yield	0.5	0.6	2.1	0.5	0.9	0.6	2.1	-use absolute delta for rate variables
Mortgage Rate	2.8	3.6	4.1	3.4	3.7	3.6	4.1	-use absolute delta for rate variables
Prime Rate	3.3	3.1	3.0	3.1	3.0	3.1	3	-use absolute delta for rate variables
Dow Jones	39,220	31,903	29,925	26,891	23,559	26,891	23,559	-use percent change for indexes
House Price Index	225	223	215	222.5	212.7	223	213	-use percent change for indexes
Commercial Real Estate Price Index	297	294	270	294.0	269.7	294	270	-use percent change for indexes
VIX	40.3	54.9	49.8	66.5	57.3	54.9	49.8	-use absolute delta for VIX

D. 2017 CCAR Economic variable delta calculations

2017 CCAR		12/31/2016	Adverse: Q1	Adverse: Q4
1	Real GDP Growth	3.1	-1.5	-1.5
2	Nominal GDP Growth	6.1	0.9	0.5
3	Real Disposable Income Growth	1.6	0.7	-0.5
4	Nominal Disposable Income Growth	4.5	2.4	1.2
5	Unemployment	4.7	5.2	6.8
6	CPI Inflation Rate	3.4	1.8	1.8
7	3M Treasury	0.4	0.1	0.1
8	3Y Treasury	1.3	1.2	1.3
9	5Y Treasury	1.7	1.7	1.9
10	7Y Treasury	2.0	2.0	2.2
11	10Y Treasury	2.2	2.3	2.5
12	BBB Corporate Yield	4.1	5.6	6.2
13	Agency MBS 10 Year Yield	2.9	3.0	4.1
14	Non-Agency MBS 10 Year AA Yield	3.5	4.3	7.6
15	CMBS 10 Year AA Yield	3.6	4.5	7.8
16	CLO/CDO AA 5.5-7 Year AA Yield	3.8	4.5	7.2
16	ABS -Cards 5 Year AAA Yield	2.2	2.9	4.9
18	ABS-Auto Near prime 3 year AAA Yield	1.7	1.9	3.4
19	Mortgage Rates	3.9	4.7	5.2
20	Prime Rate	3.5	3.3	3.2
21	Dow Jones	23,277	15,960	13,982
22	House Price Index	183	181	173
23	Commercial Real Estate Price Index	294	291	267
24	VIX	22.5	37.1	32

Spreads (%) 2016:Q4 Averages*
0.712
1.260
1.388
1.857
0.500
0.440

*Quarterly averages;
Spread to treasuries

Spreads over horizon (in %)*	
0.71	1.56
2.03	5.10
2.23	5.29
2.50	5.00
1.15	3.04
0.67	2.07

*Spread to treasuries

Annex 2ii. Market Capacity Assumption

Illustrative Example only

Step 1: Estimate Unconstrained Sales Per Day

Insurer A has a \$100 billion portfolio of investment-grade corporate bonds, priced at par. Insurer A estimates that it holds approximately 5% of outstanding corporate bonds. In the adverse liquidity stress scenario, Insurer A's unconstrained liquidity stress testing model assumes that it can sell:

Time Horizon	% Able to Be Sold	Sale Price	Total Sale	Sales / Day
First 30 Days	10%	97	\$9.7 B	\$440 M
31-90 Days	20%	94	\$18.8 B	\$430 M
91-365 Days	50%	90	\$45.0 B	\$230 M

Step 2: Add Market Capacity Constraint

Assume the average daily trading volume in the secondary market for investment grade corporate bonds has been \$13.0 Billion over the past year. Insurer A estimates that trading volumes would decline by 40% in the adverse liquidity stress scenario to \$8.0 B per day.

Since Insurer A is 5% of the market, Insurer A can only trade \$400 M per day (\$8B x 5%) without paying a significant illiquidity premium and impacting the overall market.

Insurer A then repeats this process for every asset class in its investment portfolio.

Time Horizon	Unconstrained Sales / Day	Market Capacity Assumption	Impact
First 30 Days	\$440 M	\$400 M	(\$40 M)
31-90 Days	\$430 M	\$400 M	(\$30 M)
91-365 Days	\$230 M	\$400 M	\$0

Annex 2iii, A. Structured Spreads over Treasuries

Proposed Structured Credit Spreads

Adverse Scenario Structured Credit Spread Path Calibrates to CCAR "Adverse Scenario" Dynamics over Time and Peak in 12 Month at Levels Consistent with March 2020*

Structured Spreads Over U.S. Treasuries					
December 31, 2020					
Asset Type	Baseline	3Mo.	6 Mo.	9 Mo.	12 Mo.
Agency MBS	42 bps	71	99	128	156
Non-Agency MBS	100 bps	203	305	408	510
CMBS	121 bps	223	325	427	529
CLO/CDO	167 bps	250	334	417	500
ABS-Cards	45 bps	115	178	241	304
ABS-Auto	13 bps	67	114	160	207

* Aligned with CCAR 2017 "Adverse Scenario" process (see page 3 and path of corporate credit spreads over time: difference between BBB Corporate yield and 10- Year Treasury yields). ABS-Cards/Auto are spreads to libor/swaps for baseline.

Note 1: Non-Agency MBS baseline is based on expert judgement.

Note 2: Stress Scenario is calibrated to the Federal Reserve 2017 CCAR "Adverse Scenario".

Note 3: Assumed deteriorating financial conditions peaking in 12 month consistent with the path of 2017 CCAR "adverse scenario" and March 2020 spread levels; credit spreads peak at March 2020 levels.

Note 4: CCAR interest rates and credit spreads are quarterly averages. NAIC structured spread instructions are point-in-time and end-of-period—i.e., year end, December 31.

Sources: JPMorgan ABS Weekly Spreads Datasheet, Deutsche Bank Securitized Product Market Databank and internal calculations.

Descriptions and Definitions and Baseline (December 31, 2020):

1. Agency MBS: 42 bps (Tab U.S./Column FR/Row 12) – FNMA Current Coupon 10 year (Note - now using column FR)
2. Non-Agency MBS: 100 bps (based on expert judgment) – Non-Agency MBS AA 10 year (supplement with Deutsche Bank Securitized Product Market Databank)
3. CMBS: 121 bps (Tab U.S./Column FF/Row 12) – CMBS AA 10 year
4. CLO/CDO: 167 bps (Tab CDO-lia/Column I/Row 12; not the exact notation from the JPM 07-09 data, but the closest available) – CLO AA 5.5-7 year
5. ABS-Cards: 45 bps (Tab U.S./Column W/Row 12) – Cards AAA 5 year
6. ABS-Auto: 13 bps (Tab U.S./Column AO/Row 12; AAA 3-year near prime was not available for this value, we suggest subbing the AAA 3-year fixed prime value [13] instead or utilizing it as a jumping off point to develop) – Auto AAA 3 year

Source: JPMorgan ABS Weekly Spreads Datasheet (with Deutsche Bank Securitized Product Market Databank for non-agency MBS)

Annex 2iii, B. Year-end Structured Spread Baseline Values

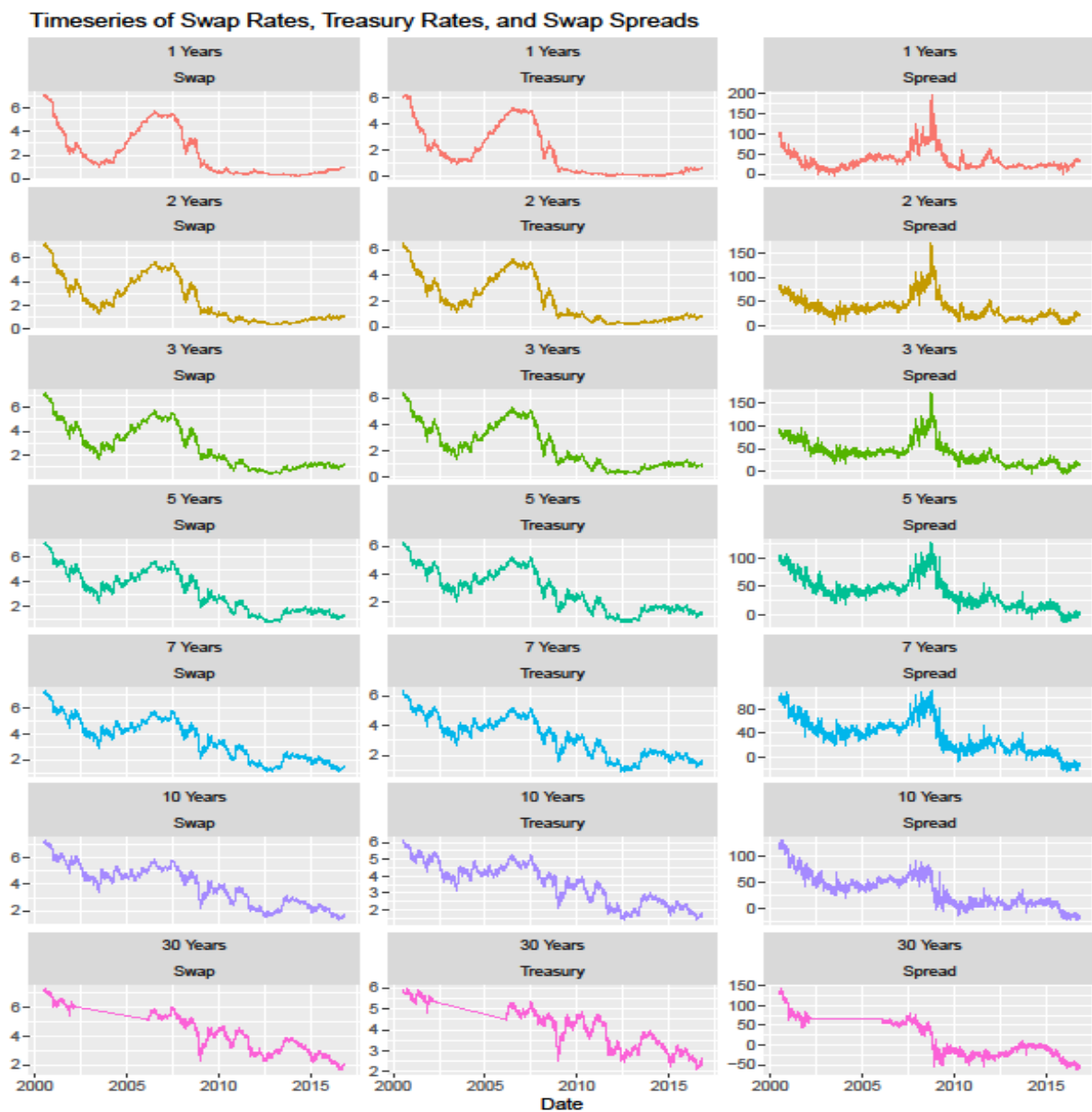
	Reported Baseline Spreads (%) Dec 31, 2020	Spreads (%) 2020:Q4 Averages*
Agency MBS 10 Year Yield	0.42	0.533
Non-Agency MBS 10 Year AA Yield	1.00	1.440
CMBS 10 Year AA Yield	1.21	1.279
CLO/CDO 5.5-7 Year AA Yield	1.67	1.859
ABS -Cards 5 Year AAA Yield	0.45	0.560
ABS-Auto Near prime 3 Year AAA Yield	0.13	0.260
*Quarterly averages; Spread to treasuries		

Annex 2iv. SWAP Spread Table

Swap Spreads ^{1,2}						
Maturity	Baseline	1 Mo.	3 Mo.	6 Mo.	9 Mo.	12 Mo.
3 Mo.	X	X	X	X	X	X
5 Yr	X	X	X	X	X	X
10 Yr	X	X	X	X	X	X
20 Yr	X	X	X	X	X	X
30 Yr	X	X	X	X	X	X

1 - (Nominal) Swap Spreads (in BPS)

2 - IR Par Swap Spreads for USD, EUR, JPY, GBP, AUD and CAD



Source: Federal Reserve

Annex 2v. Implied Volatility of IR Swaptions

Implied Volatility		
Implied Normal Volatility of IR Swaption by Tenor and Expiry		
Time Horizon 0		
Tenor/Expiry	3Y	7Y
3 Mo.	X	X
3Y	X	X
5Y	X	X
7Y	X	X
10Y	X	X

Annex 2vi. Credit Assumptions: Moody's Transition Matrix/Migration Rates

Exhibit 37 Average one-year alphanumeric rating migration rates, 1983-2020

Source: Moody's Investors Service

	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3	B1	B2	B3	Caa1	Caa2	Caa3	Ca-C	WR	DEF
Aaa	87.12%	5.31%	2.24%	0.55%	0.30%	0.14%	0.02%	0.06%	0.00%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.20%	0.00%
Aa1	1.62%	77.03%	7.76%	5.70%	1.39%	1.02%	0.18%	0.12%	0.07%	0.01%	0.03%	0.00%	0.01%	0.04%	0.02%	0.01%	0.02%	0.02%	0.00%	0.00%	4.94%	0.00%
Aa2	1.02%	4.20%	73.85%	10.13%	3.37%	1.61%	0.41%	0.09%	0.15%	0.07%	0.03%	0.02%	0.00%	0.03%	0.01%	0.02%	0.00%	0.02%	0.00%	0.00%	4.99%	0.00%
Aa3	0.16%	1.04%	4.10%	75.53%	8.76%	3.48%	0.81%	0.24%	0.24%	0.12%	0.03%	0.03%	0.01%	0.01%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	5.40%	0.04%
A1	0.05%	0.09%	1.06%	5.27%	76.43%	7.46%	2.63%	0.59%	0.42%	0.18%	0.17%	0.12%	0.04%	0.05%	0.01%	0.01%	0.01%	0.01%	0.01%	0.00%	5.34%	0.06%
A2	0.05%	0.03%	0.19%	0.99%	5.72%	76.68%	7.31%	2.49%	0.97%	0.36%	0.16%	0.13%	0.15%	0.05%	0.03%	0.01%	0.02%	0.02%	0.01%	0.00%	4.57%	0.04%
A3	0.04%	0.05%	0.09%	0.29%	1.43%	6.20%	75.88%	6.77%	2.55%	0.85%	0.34%	0.15%	0.12%	0.10%	0.04%	0.02%	0.03%	0.01%	0.00%	0.01%	4.99%	0.05%
Baa1	0.01%	0.02%	0.07%	0.11%	0.19%	1.47%	6.55%	76.22%	6.67%	2.19%	0.57%	0.30%	0.19%	0.25%	0.05%	0.03%	0.05%	0.03%	0.01%	0.02%	4.92%	0.10%
Baa2	0.04%	0.03%	0.02%	0.06%	0.16%	0.55%	1.83%	6.57%	76.07%	6.32%	1.26%	0.59%	0.43%	0.30%	0.18%	0.09%	0.10%	0.01%	0.02%	0.01%	5.22%	0.14%
Baa3	0.02%	0.01%	0.01%	0.03%	0.07%	0.16%	0.43%	1.75%	8.82%	73.24%	4.77%	2.02%	0.94%	0.72%	0.24%	0.25%	0.14%	0.07%	0.05%	0.04%	5.99%	0.22%
Ba1	0.02%	0.00%	0.02%	0.02%	0.16%	0.12%	0.21%	0.66%	2.36%	10.21%	65.44%	5.39%	4.11%	1.57%	0.59%	0.51%	0.13%	0.22%	0.04%	0.12%	7.71%	0.41%
Ba2	0.00%	0.00%	0.02%	0.02%	0.06%	0.11%	0.15%	0.35%	0.68%	3.65%	8.06%	64.59%	6.44%	3.73%	1.32%	0.88%	0.32%	0.21%	0.08%	0.13%	8.55%	0.65%
Ba3	0.00%	0.01%	0.01%	0.01%	0.06%	0.16%	0.16%	0.09%	0.42%	0.75%	2.83%	6.84%	64.28%	7.10%	3.15%	1.95%	0.72%	0.39%	0.08%	0.12%	9.62%	1.23%
B1	0.01%	0.01%	0.01%	0.01%	0.05%	0.03%	0.07%	0.09%	0.18%	0.38%	0.65%	2.81%	6.71%	63.43%	6.33%	4.39%	1.40%	0.74%	0.23%	0.25%	10.43%	1.81%
B2	0.00%	0.01%	0.00%	0.01%	0.02%	0.02%	0.09%	0.10%	0.13%	0.24%	0.21%	0.64%	2.07%	7.45%	62.19%	8.00%	3.57%	1.89%	0.43%	0.50%	9.65%	2.80%
B3	0.01%	0.00%	0.02%	0.00%	0.03%	0.03%	0.05%	0.03%	0.04%	0.09%	0.13%	0.23%	0.80%	2.37%	6.19%	60.48%	7.47%	3.38%	1.06%	0.85%	12.42%	4.31%
Caa1	0.00%	0.01%	0.00%	0.00%	0.00%	0.01%	0.00%	0.02%	0.01%	0.03%	0.05%	0.11%	0.22%	0.51%	1.23%	7.42%	58.86%	9.51%	2.80%	1.31%	13.88%	4.01%
Caa2	0.00%	0.00%	0.02%	0.00%	0.02%	0.01%	0.00%	0.00%	0.04%	0.07%	0.03%	0.04%	0.12%	0.34%	0.73%	1.99%	6.75%	57.05%	6.45%	3.07%	15.30%	7.98%
Caa3	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.05%	0.03%	0.03%	0.15%	0.15%	0.91%	2.95%	8.51%	45.21%	9.44%	14.44%	18.14%
Ca-C	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%	0.02%	0.07%	0.00%	0.00%	0.14%	0.13%	0.15%	0.09%	0.35%	1.65%	1.91%	3.20%	4.57%	37.40%	20.47%	29.83%

Source: Moody's

Annex 2vii. Credit Assumptions: Moody's Default Table

Exhibit 42 Average cumulative issuer-weighted global default rates by letter rating, 1983-2020

Source: Moody's Investors Service

Rating\Horiz	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Aaa	0.00%	0.01%	0.01%	0.04%	0.06%	0.09%	0.12%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%
Aa	0.02%	0.06%	0.11%	0.20%	0.30%	0.39%	0.48%	0.56%	0.64%	0.73%	0.82%	0.94%	1.06%	1.14%	1.22%	1.30%	1.40%	1.54%	1.74%	1.91%
A	0.05%	0.16%	0.34%	0.53%	0.76%	1.01%	1.27%	1.55%	1.81%	2.07%	2.32%	2.56%	2.82%	3.11%	3.44%	3.77%	4.13%	4.51%	4.83%	5.17%
Baa	0.16%	0.40%	0.69%	1.04%	1.40%	1.79%	2.16%	2.55%	2.95%	3.36%	3.81%	4.29%	4.79%	5.32%	5.82%	6.35%	6.86%	7.32%	7.73%	8.08%
Ba	0.83%	2.35%	4.14%	6.04%	7.77%	9.38%	10.86%	12.23%	13.57%	14.94%	16.17%	17.43%	18.59%	19.71%	20.90%	22.03%	23.03%	23.98%	24.99%	25.63%
B	3.21%	7.73%	12.44%	16.71%	20.58%	23.99%	27.00%	29.65%	32.06%	34.13%	35.93%	37.62%	39.30%	41.06%	42.61%	44.08%	45.46%	46.84%	48.13%	49.50%
Caa-C	9.82%	17.61%	24.31%	30.16%	35.24%	39.48%	43.06%	46.26%	49.19%	51.60%	53.60%	54.83%	55.85%	56.40%	57.03%	57.84%	58.52%	59.21%	60.01%	60.74%
IG	0.08%	0.23%	0.42%	0.63%	0.87%	1.13%	1.38%	1.63%	1.88%	2.14%	2.40%	2.66%	2.95%	3.23%	3.53%	3.83%	4.14%	4.45%	4.74%	5.01%
SG	4.22%	8.54%	12.66%	16.34%	19.55%	22.30%	24.66%	26.74%	28.64%	30.34%	31.81%	33.17%	34.46%	35.73%	36.95%	38.11%	39.15%	40.17%	41.18%	42.02%
All	1.68%	3.36%	4.90%	6.24%	7.37%	8.32%	9.13%	9.83%	10.46%	11.03%	11.55%	12.03%	12.50%	12.97%	13.42%	13.87%	14.30%	14.71%	15.11%	15.45%

Annex 2viii. Credit Assumptions: Moody's Recovery Rate Table

Exhibit 8 Average debt recovery rates measured by ultimate recoveries, 1987-2020

Source: Moody's Investors Service

Priority position	Emergence Year			Default Year		
	2020	2019	1987-2020	2020	2019	1987-2020
Revolvers*	78.6%	89.6%	86.3%	81.8%	79.9%	86.3%
Term Loans**	48.5%	58.1%	72.6%	50.1%	52.7%	72.6%
Senior Secured Bonds	34.8%	45.9%	61.4%	34.8%	44.6%	61.4%
Senior Unsecured Bonds	8.6%	31.3%	46.9%	8.6%	40.5%	46.9%
Subordinated Bonds	0.9%	24.7%	27.9%	0.9%	24.7%	27.9%

* Includes cash revolvers and borrowing base facilities

** includes all types of term loans: first, second-lien, unsecured

Draft: 2/15/22

Macroprudential (E) Working Group
Virtual Meeting
February 1, 2022

The Macroprudential (E) Working Group of the Financial Stability (E) Task Force met Feb. 1, 2022. The following Task Force members participated: Justin Schrader, Chair (NE); Carrie Mears, Vice Chair (IA); Kim Hudson (CA); Kathy Belfi (CT); Philip Barlow (DC); Ray Spudeck (FL); Susan Berry (IL); Eric A. Cioppa (ME); Lynn Beckner (MD); Steve Mayhew (MI); Fred Andersen (MN); Debbie Dogget (MO); David Wolf (NJ); Bob Kasinow (NY); Melissa Greiner (PA); Mike Boerner (TX); and Greg Chew (VA).

1. Adopted the List of Regulatory Considerations – PE-Related and Other

Mr. Schrader said that during its Dec. 7, 2021, meeting, the Financial Stability (E) Task Force exposed the list of “Regulatory Considerations Applicable (But Not Exclusive) to Private Equity (PE) Owned Insurers” for a 30-day public comment period, which was subsequently extended to Jan. 18, 2022. He thanked the following groups for their comments: the American Council of Life Insurers (ACLI); the American Investment Council (AIC); the National Alliance of Life Companies (NALC); the National Organization of Life and Health Insurance Guaranty Associations (NOLHGA); and Risk & Regulatory Consulting (RRC). Mr. Schrader reported that the Task Force met Jan. 24 in regulator-to-regulator session, pursuant to paragraph 3 (specific companies, entities, or individuals) and paragraph 4 (internal or administrative matters of the NAIC and any NAIC staff), to discuss the comments received. He added that the finalized edits to the proposed list of PE-related and other regulatory considerations was distributed via email and posted on the Working Group’s web page on Jan. 27.

Mr. Schrader requested that Todd Sells (NAIC) walk through the proposed edits to receive any final comments before considering the list for adoption, which would then be submitted to the Financial Stability (E) Task Force and the Financial Condition (E) Committee for consideration.

Mr. Sells stressed that the Working Group is only finalizing a list of considerations, which has no bearing if any item on the list will be acted upon in the future. He added that any action will be discussed in the future. The Working Group received no comments for regulatory considerations 1 and 5. The Working Group received support and no additional comments for the following redlined regulatory considerations: 3, 4, 6, 7, 8, 9, and 11. Mr. Sells asked the ACLI if adding “Asset management services may need to be distinguished from ownership, when assessing, and considering controls and conflicts” reflected their comments (regulatory consideration #2). David Leiffer (ACLI) said that an asset management agreement would not typically raise issues of control, so he agreed with adding that sentence. Ed Toy (RRC) said that with respect to risks that are part of the *Financial Conditioner Examiners Handbook*, a private asset adds to more market volatility, liquidity, and potentially more credit risks due to being potentially opaque, but those assets are not riskier by simply being private (regulatory consideration #10). Mr. Sells indicated those comments will be sent for consideration to staff supporting the *Financial Conditioner Examiners Handbook*. Mr. Sells thanked NOLHGA for sending a 2016 report that compared pensions under the Pension Benefit Guaranty Corporation (PBGC) versus state guarantee coverage for those group annuity certificate holders (regulatory consideration #12B). Mr. Sells noted that for regulatory consideration 13, the ACLI asked for more specifics, so the Working Group added “reduce reserves” and “increase investment risk” as examples to the list of regulatory considerations regarding insurers’ use of offshore reinsurers (including captives) and complex affiliated sidecar vehicles. He emphasized that the list of regulatory considerations has no bearing if any item on the list will be acted upon. David Leiffer (ACLI) agreed that those examples were sufficient.

Michael Hachey (UNITE HERE) said that he is a researcher for a labor organization that represents workers in the U.S. and Canada and that supports the work of the Working Group, especially regulatory consideration #12 and #13. He added that for #12, the Working Group should examine U.S. Department of Labor (DOL) protections for pension beneficiaries that have seen their pensions transferred from an insurer to PE. He added that for #13, the Working Group should examine how there is risk transfer from the U.S. to Bermuda through offshore captives, re-insurance, or side car vehicles and work cooperatively with federal agencies to avoid groups operating outside the reach of prudential regulation. Mr. Schrader thanked Mr. Hachey for his comments and said that the Working Group welcomes future comments through the NAIC's open and transparent process.

Ms. Belfi made a motion, seconded by Mr. Wolf, to adopt the amended "Regulatory Considerations Applicable (But Not Exclusive) to Private Equity (PE) Owned Insurers" (Attachment 1). The motion passed unanimously.

2. Received an Update on the 2021 LST Framework, Including Scope Criteria

Mr. Schrader said that the liquidity stress test (LST) study group, an unofficial NAIC group composed of interested state insurance regulators, lead states, representatives of in scope insurers, and NAIC staff constructed the 2020 LST framework, which included a Sept. 30, 2021, filing deadline because the framework requirements were not finalized until April 2020. He added that LST results need to be provided by June 30 to allow time to review the results and use them in considering any framework and/or scope criteria changes by Dec. 31 of the data year as required once the revisions of the *Insurance Holding Company System Regulatory Act* (#440) are in force. He concluded that to accomplish the June 30 deadline, LST study group regulators have agreed not to make any substantive changes to the 2021 LST, including the scope criteria. He added that for consistency in the process, the original 22 groups, which is down from 23 due to merger/acquisition activity, are still participating to avoid groups frequently falling in and out of scope. He stressed that new life insurance groups scoped in by their 2020 data are invited to participate this year in the LST study group discussions as well, in anticipation of their filing the 2022 LST. He added that the LST study group intends to finalize the proposed 2021 LST framework document soon, but the lead state adjustments for some market metrics will be finalized for lead state guidance in February or March. Mr. Schrader said that the proposed 2021 LST framework will be considered for adoption possibly jointly by the Working Group and the Financial Stability (E) Task Force, but there will be no exposure period since there are no substantive changes from the 2020 LST framework, which was exposed many times and only the scoped-in life insurance groups are affected.

3. Heard a Macroprudential Risk Assessment

Tim Nauheimer (NAIC) said that NAIC staff and state insurance regulators are designing a process that:

- Allows state insurance regulators to assess risks at an industry-wide level (mainly inward, but may also consider outward).
- Allows industry input to be sought at appropriate junctures.
- Incorporates the branded risk categories albeit tailored to a macro perspective.
- Leverages existing NAIC data and publicly available quantitative and qualitative inputs.
- Allows the risk assessment to culminate in the issuance of a public risk dashboard supported by detailed analysis that may be regulator-only.

Mr. Nauheimer added that an overview of documentation for the risk dashboard will be exposed in February and said he anticipates biweekly Working Group meetings by state insurance regulators to work on the risk dashboard. Mr. Nauheimer said that the risk dashboard currently under development has a goal of publishing a first edition in late 2022, ideally in junction with the Fall Risk Alert.

Mr. Schrader said that state insurance regulators will try to avoid duplicating any information that is already in the Fall Risk Alert and seek industry input. He emphasized that the goal is to provide as much useful regulatory-only information as possible that can be shared with both state and federal regulators.

Having no further business, the Macroprudential (E) Working Group adjourned.