



UNITED STATES

FINANCIAL SECTOR ASSESSMENT PROGRAM

TECHNICAL NOTE—INSURANCE SUPERVISION AND REGULATION

August 2020

This Technical Note on Insurance Supervision and Regulation for the United States FSAP was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed in July 17, 2020.

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INSURANCE SUPERVISION AND REGULATION

Prepared By
**Monetary and Capital
Markets Department**

This Technical Note was prepared by IMF staff in the context of an IMF Financial Sector Assessment Program (FSAP) in United States held during October–November 2019 and February–March 2020. It was led by Ms. Michaela Erbenová. It contains technical analysis and detailed information underpinning the FSAP’s findings and recommendations. Further information on the FSAP can be found at <http://www.imf.org/external/np/fsap/fssa.aspx>

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Glossary

ACL	Authorized Control Level RBC
AP&P Manual	NAIC’s Accounting Practices and Procedures Manual
ASOP	Actuarial Standards of Practice
BBA	Building Block Approach
CDI	California Department of Insurance
CID	Connecticut Insurance Department
Citizens	Citizens Property Insurance Corporation
CMGs	Crisis Management Groups
ComFrame	IAIS’ Common Framework for the Supervision of IAIGs
DAR	Detailed Assessment Report
DFA	Dodd–Frank Wall Street Reform and Consumer Protection Act
FAST	Financial Analysis Solvency Tools
FEMA	Federal Emergency Management Agency
FAWG	Financial Analysis Working Group of the NAIC
FHCF	The Florida Hurricane Catastrophe Fund
FHLPMC	The Florida Hurricane Loss Projection Methodology Commission
FLOIR	The Florida Office of Insurance Regulation
FIO	Federal Insurance Office
FRB	Board of Governors of the Federal Reserve System
FSAP	Financial Sector Assessment Program
FSOC	Financial Stability Oversight Council
FSTF	Financial Stability Task Force
GAAP	Generally Accepted Accounting Principles
GCC	Group Capital Calculation
GSE	Government Sponsored Enterprises (“Fannie Mae” and “Freddie Mac”)
HOLA	Home Owners’ Loan Act
IAIG	Internationally Active Insurance Group (as determined by local supervisors according to IAIS definition)
IAIS	International Association of Insurance Supervisors
ICPs	Insurance Core Principles
ICS	Global Risk-based Insurance Capital Standard (IAIS)
LTC	Long-Term Care
MDI	Massachusetts Division of Insurance
MPI	Macro Prudential Initiative
NAIC	National Association of Insurance Commissioners
NFIP	National Flood Insurance Program
NJDOBI	New Jersey Department of Banking and Insurance
NYDFS	New York Department of Financial Services
ORSA	Own Risk and Solvency Assessment
PBR	Principles-based Reserving

P&P Manual	Purposes and Procedures Manual of the NAIC Investment Analysis Office
RBC	Risk-based Capital
RRG	Risk Retention Group
SAP	Statutory Accounting Principles
SLHC	Saving and Loan Holding Company
TN	Technical Note
UCAA	Uniform Certificate of Authority Application

EXECUTIVE SUMMARY

This Technical Note (TN) is a targeted review of cross-cutting themes building on the detailed assessment of the Insurance Core Principles (ICPs) conducted in 2015. The targeted review was chosen, in part, due to the performance of the U.S. insurance regulatory system in the 2015 detailed assessment where it was assessed that the U.S. observed 8 ICPs, largely observed 13 ICPs and partly observed 5 ICPs. The analysis relied on a targeted self-assessment against a subset of ICPs covering valuation and solvency, risk management, conduct, winding-up, corporate governance and enforcement, and the objectives, powers and responsibility of supervisors. The choice of subjects covered in this review is based on those aspects most significant to financial stability and a follow-up on key recommendations from the 2015 detailed assessment. The focus of the analysis has been on the state-based system of regulation and supervision, reflecting the existing institutional setup.

At the time of writing, the COVID-19 pandemic is having a significant impact on the insurance industry, primarily through the impact on investments and to a lesser extent through changing claims patterns. The analysis of insurance regulation and supervision has not covered the impact of the COVID-19 pandemic on insurers or insurance regulators response to it. The recommendations are meant to be considered once the impact of the pandemic on the insurance sector becomes clearer and when extraordinary measures can be eased. The analysis is part of the 2020 Financial Sector Assessment Program (FSAP) of the United States. It is based on the regulatory framework in place and the supervisory practices employed as of March 10, 2020. State insurance regulators have taken numerous market conduct actions in response to COVID-19, for example facilitating late payment of premiums by policyholders while maintaining coverage and banning health insurers from imposing cost sharing for COVID-19 tests. Prudential measures by state insurance regulators include heightened monitoring of insurers through uniform data calls on the solvency impact and regulatory relief and forbearance in a number of critical areas, particularly in regard to various statutory accounting exceptions.

The authorities have made some progress in implementing the 2015 FSAP recommendations. The implementation of Principles-based reserving (PBR) in the life insurance industry is a step toward addressing the issues found on valuation in the 2015 FSAP but there is much more to be done. The implementation of risk-focused surveillance in financial analysis and financial examinations is another key step forward, albeit it is still a work in progress. Several unresolved issues are further analyzed in this report. The most significant findings can be characterized under four themes: independence of supervisors, risk-based supervision, reserving, and group capital.

Supervisory independence is a key outstanding issue. Operational independence combined with accountability and transparency are vital to the legitimacy of the supervisor. Supervisory independence, perceived or actual, is undermined by the appointment of insurance commissioners and their senior staff at the pleasure of the state governor or the direct election of the insurance commissioner; government control of access to resources; and constraints on staff remuneration. The state governments should consider reforms for the appointment and dismissal of commissioners as well as ways in which civil service remuneration constraints can be eased so that

sufficiently qualified staff can be attracted and retained. To boost budgetary independence, state governments should pass along all cost recovery assessments to the state insurance regulators.

Risk-based supervision should be developed further. This approach is a work in progress and refinements are needed to the current framework that in-part still resembles a rules-based mechanical approach. It is recommended that state regulators focus their analysis and examinations on understanding risk culture, governance and the quality of risk management, while reducing internal organizational barriers across financial analysis and financial examinations. Moving away from the rigidity of quinquennial in-depth examinations to more frequent narrower scope examinations would increase the interaction between state insurance regulators and the insurers they supervise. While it is acknowledged that the quinquennial examination can give rise to additional targeted examinations and reviews before the next quinquennial examination, applying a full scope examination to all insurers is not a risk-based form of supervision but does have the benefit of ensuring all insurers are subject to regular onsite supervision.

Consistency of life insurer liability valuation methods is needed. A variety of methods have been developed over the years for the valuation of different portions of life insurer policyholder obligations. While each method has been designed with conservatism in mind (either through the choice of assumptions, calculation technique and/or floors), the methods are inconsistent in their approaches and lack uniformity in the level of conservatism generated. As an example, there is no consistent methodology for determining a central estimate and appropriate margin over central estimate even within the various valuation methodologies of PBR, let alone the mixture of pre- and post-PBR liability valuation. This lack of consistency has encouraged the industry to arbitrage (with insurance regulator agreement) regulatory valuation requirements which are seen to be uneconomic (e.g., growth of captive insurers for certain products). The lack of consistency also makes it difficult for supervisors to develop a consistent comprehensive view of liability strength. It is recommended that all reserves be moved to a consistent PBR basis after a target transition period of five years with floors and guardrails removed so that a consistent economic approach can be applied.

A total balance sheet approach to insurer solvency assessment needs to be implemented requiring a revised approach to valuation and subsequent recalibration of capital requirements and available capital resources. Insurer statutory valuation requirements for assets and liabilities cannot currently be aligned due to the variety of valuation methods allowed within PBR and the gradual adoption of PBR as the liability valuation method. A coherent total balance sheet assessment of insurer solvency cannot be achieved in the absence of consistent valuation of an insurer's assets and liabilities. In the absence of such consistency, available capital resources are subject to spurious and volatile changes between periods, making it impossible for the determination of risk-based capital (RBC) requirements to provide a desired level of confidence. At present, inconsistent levels of conservatism in the valuation of life insurer products also make it difficult to develop a complementary (i.e., total balance sheet approach) set of capital requirements. Greater consistency in the valuation of life insurer products will necessitate and enable the re-design and recalibration of the life insurer RBC requirements to ensure that together they provide appropriate solvency protection for policyholders based on a clearly stated desired level of

policyholder protection. The National Association of Insurance Commissioners (NAIC) and state insurance regulators should commence work to re-calibrate the RBC to PBR to reflect the underlying economics and a total balance sheet approach to risk and solvency assessment.

The development of a group capital requirement is another issue which should be advanced.

Both the Federal Reserve and the NAIC are developing aggregation approaches to group capital. These approaches may diverge in certain technical areas while aiming for comparable outcomes over time. For example, there is likely divergence on calibration where the focus of the Federal Reserve is to calibrate the capital requirements for insurance and other financial activities to comparable levels as compared to the NAIC approach which appears to be developed to calibrate toward existing U.S. insurance capital requirements. It is recommended that authorities develop a consolidated group capital requirement similar to GAAP-Plus insurance capital standard (ICS) for internationally active groups and optionally for domestic groups in parallel with the development of aggregation approaches by the FRB and the NAIC. Developing the Generally Accepted Accounting Principles (GAAP)-Plus Global Risk-based Insurance Capital Standard (IAIS) (ICS) based on U.S. GAAP is recommended as an internationally consistent way forward to addressing the current gap in insurance group capital requirements in the United States. The GAAP-Plus approach is designed to use jurisdictional GAAP as a basis for calculating the ICS. It is acknowledged that in November 2019, the International Association of Insurance Supervisors (IAIS) agreed to move forward with a plan that will consider the comparability of the Aggregation Method and the global Insurance Capital Standard. There is uncertainty as to the outcome of this comparability assessment at the time of the FSAP mission, uncertainty which could be avoided by developing an approach consistent with the ICS. If the NAIC's proposed Group Capital Calculation (GCC) is adopted, it should be made into a requirement not merely a calculation.

Regulatory responses to the increasing risk and severity of natural catastrophes need to be strategically focused on the medium to long-term, matching the nature of the evolution of those risks. It is vital that regulatory responses ensure there is an adequate price signal of the increasing risk policyholders face and that price signals incentivize mitigation efforts to enhance resilience:

- **For example, the Californian insurance industry has faced exceptional losses from wildfires in 2017 and 2018.** The regulatory response has focused on the short-term protection of policyholders from significantly increased rates as well as continued availability of insurance in the short-term. Californian authorities and the industry need to work together to develop a medium to long-term plan with the aim of achieving sustainable and, over time, forward-looking, risk-based pricing of insurance incentivizing insurers to remain in the market, allow time for development of and investment in standard mitigation measures, as well as allowing time for policyholders to adjust to higher premiums as necessary. Long-term solutions to wildfire risks require policies among multiple agencies to reduce the risks of wildfires and reduce the propensity for wildfires to cause losses.

- **After going through a period of crisis in the 1990s and early 2000s due to losses from hurricanes, the Florida homeowners' insurance market appears to have stabilized except for a legal risk that has recently emerged.** After crisis, Florida eventually settled on a system of regulation that appears to be working and may provide some lessons for states like California that are facing increasing catastrophe losses. The Floridian insurance industry's most recent issues have been legal challenges to claims payments leading to high legal expenses following hurricanes and consequent increased premiums. A recent legislative change may curb these expenses.
- **There are likely to be significant protection gaps¹ regarding flood risks in the U.S which should be thoroughly analyzed and then solutions considered.** If these protection gaps widen, then spillover risks into other financial sectors may occur as property that secures mortgage loans is generally not insured against losses from a catastrophe event. While addressing the protection gap is difficult, U.S. authorities are urged to consider a range of possible solutions to close the protection gap in the medium to long-term.

The NAIC and state insurance regulators need to quickly finalize and legally implement post-crisis reforms to requirements for PMIs. PMIERs imposed by the GSEs, are the binding financial requirements for PMIs rather than minimum capital requirements of state regulators.² The NAIC and state regulators are working on a risk-based capital requirement that including a countercyclical factor to capture risks from rising house prices compared to incomes. This needs to be quickly finalized including regulatory intervention levels.

The following table summarizes the recommendations resulting from this report. The remainder of this report provides the detailed findings and analysis leading to each recommendation.

¹ The protection gap is the difference between total asset losses in a possible catastrophic event and the possible insured asset losses.

² For the discussion of PMIERs see Box 3 on Housing Finance Reform.

Table 1. United States: Main Recommendations		
Recommendation	Timeframe	Priority
Independence		
State governments should change the legislation governing state insurance regulators to allow for the insurance commissioners and their staff to be appointed for fixed terms or be appointed for open-ended terms. Their appointment should not be aligned with the term of the governor. (¶139)	MT	H
State governments should introduce clear criteria for dismissal of insurance commissioners and require the reasons for any dismissal be made public and be subject to appeal. (¶139)	MT	H
State governments should strengthen financial independence of state regulators by ensuring that the state governments pass on all assessments for cost recovery of state insurance regulators to those state insurance regulators. (¶140)	NT	H
State governments should consider reforms to remuneration of the state insurance regulators' staff to safeguard the ability to attract and retain key skilled personnel, while maintaining appropriate accountability for the use of public resources. (¶144)	MT	H
Reserving		
The NAIC and state insurance regulators should require all in-force business be moved to PBR after a target transition period of 5-years to ensure consistency of valuation approach. (¶172)	MT	H
The NAIC and state insurance regulators should commence work to recalibrate the RBC to PBR to reflect the underlying economics and a total balance sheet approach to risk and solvency assessment, including valuation of investments to ensure the consistency of all elements of the Statutory Accounting Principles (SAP) balance sheet. (¶180)	MT	M
The NAIC and state insurance regulators should significantly expand their in-house supervisory actuarial capability to supervise PBR effectively. Consider formation of a shared center of expertise in addition to the NAIC resources already available to the Valuation Analysis (E) Working Group (VAWG). (¶182)	NT	M
Risk-Based Supervision		
State insurance regulators should better coordinate and leverage the expertise of teams of supervisors dedicated to financial analysis and financial examination for large insurance groups including Internationally Active Insurance Groups (IAIGs). (¶127)	NT	H
State insurance regulators should reduce the separation between financial analysis and financial examination functions to effectively focus on understanding risk culture, governance and the quality of risk management, partly through more frequent engagement with C-Suite management. (¶127)	NT	M

Table 1. United States: Main Recommendations (continued)		
Recommendation	Timeframe	Priority
State insurance regulators should undertake more frequent, narrower scope examinations such that comprehensive scope coverage occurs within a five-year period but there are more frequent onsite processes carried out by state insurance regulators. (¶127)	MT	M
The NAIC and state insurance regulators should add a market significance or impact of failure overlay to the existing prioritization framework to ensure that large and important insurers and groups receive suitable ongoing supervisory attention. (¶115)	MT	M
Group Capital		
With respect to IAIGs and optionally for domestic insurance groups, the NAIC, state insurance regulators and the Federal Reserve should develop a consolidated group capital requirement similar to GAAP-Plus insurance capital standard (ICS) for internationally active groups and optionally for domestic groups in parallel with the development of aggregation approaches by the FRB and NAIC. (¶149)	MT	H
Regulatory Developments		
The NAIC, state insurance regulators and state governments should streamline the approach to developing model laws to ensure timely reaction to market developments. (¶30)	MT	M
State governments should give state insurance regulators a clear mandate for financial stability. (¶34)	MT	M
The NAIC should prioritize the development of model laws on issues where a national approach is required or highly desirable. (¶29)	NT	L
The NAIC, state insurance regulators and state governments should put in place insurance-specific regulatory governance and risk management requirements to clarify expectations, create greater enforceability of the requirements and reduce differentiation among states that could occur through different interpretations of supervisory handbooks. (¶53)	MT	H
Captives		
The NAIC and state insurance regulators should regularly monitor and report publicly on the impact of the uses of captives by direct writing insurers and insurance groups including the combined impact of the captives on the reserve and capital positions of those entities. (¶86)	NT	H

Table 1. United States: Main Recommendations (concluded)		
Recommendation	Timeframe	Priority
Long-Term Care (LTC)		
The NAIC and state insurance regulators should develop a balanced approach to rate approvals at the states level that recognizes the trade-off between their dual responsibilities to treat customers fairly and protect policyholders against insurer insolvency. (¶197)	NT	H
NAIC and state insurance regulators should work together to develop a more consistent response to LTC rate approvals to avoid cross-subsidization between states. (¶197)	I	H
State and federal governments should work together to find an alternative solution to funding aged care in the community including potentially more appropriate insurance products. (¶197)	MT	H
Own Risk and Solvency Assessment (ORSA)		
State insurance regulators should align filing deadlines for ORSA across states. (¶106)	NT	M
The NAIC and state insurance regulators should start benchmarking ORSA's across all states to document best and weak practices in the insurance industry, identify risk trends and help inform NAIC and state supervisors of emerging macroprudential issues. (¶106)	NT	M
* "I-Immediate" is within one year; "NT-near-term" is 1–3 years; "MT-medium-term" is 3–5 years.		

INTRODUCTION

A. Scope and Approach

1. This TN is a targeted review building on the detailed assessment of the ICP observance conducted in 2015.³ The analysis relied on a targeted ICP self-assessment focusing on 17 base principles⁴ covering valuation and solvency, risk management, conduct, winding-up, corporate governance and enforcement, and the objectives, powers and responsibility supervisors. There is no graded assessment of observance of ICPs and instead there is an update on the evaluation undertaken in 2015, including the extent to which the recommendations made at that time have been addressed. The revised ICPs incorporating IAIS' Common Framework for the Supervision of IAIGs (ComFrame) and the IAIS Holistic Framework for Systemic Risk also form a reference for this analysis as they were to be adopted soon after this analysis was undertaken in October/November 2019.

2. The analysis has not covered the impact of the COVID-19 pandemic on insurers or insurance regulators' response to it. The analytical work reflected in the note was carried out before the global intensification of the COVID-19 outbreak. The on-site work supporting the findings and conclusions was conducted during October 15–November 8, 2019. The sections on Mortgage Guaranty Insurance and the Increasing Incidence and Severity of Natural Catastrophes are based on onsite work during February 18–March 5, 2020. The note focuses on the medium-term challenges and policy priorities for regulation and supervision of securities markets in the U.S. and does not cover the outbreak or the related policy response, which has since become the overarching near-term priority. The recommendations are meant to be considered once the impact of the pandemic on the insurance sector becomes clearer and when extraordinary measures can be eased.

3. The focus in this FSAP is on the state-based system of regulation and supervision in contrast to the previous detailed assessment where Federal government oversight of the insurance industry was covered in greater depth. To assess implementation of model laws and supervisory processes in practice, four state supervisors—in New York, Connecticut, Massachusetts and New Jersey—were visited and files were reviewed with respect to significant insurance groups for which these state supervisors act as lead state supervisors. Discussions were also held with the federal bodies, the Federal Insurance Office (FIO), the Financial Stability Oversight Council (FSOC) and the Board of Governors of the Federal Reserve System (Federal Reserve). The supervision practices of the Federal Reserve were not reviewed in detail reflecting its relatively limited role in the current juncture.

³ The authors of this note are Peter Windsor (IMF) and Stuart Wason (IMF expert).

⁴ ICPs 1,2 4, 7 to 17, 19, 23 and 24.

4. The thematic focus reflects those aspects of insurance and regulation that in staff judgment are most significant to financial stability⁵ and a follow-up on key recommendations from the 2015 detailed assessment. The analysis underlying this TN covered the life, property and casualty and health insurance industry but with more focus on the life insurance. As detailed below, the life insurance is significant to the overall U.S. financial sector, and a significant source of credit to the corporate sector.

B. Market Structure

5. The U.S. insurance sector is large, globally significant with material cross-border linkages.⁶ The United States has the world's largest single-country insurance market with 28 percent of global direct premiums written in 2018, and it is ranked 9th in the world for insurance sector penetration and insurance density. The industry represents 11 percent of the total U.S. financial system assets which has been broadly stable over the five years, and equivalent to 48 percent of the U.S. GDP.⁷ The sector penetration is seven percent of GDP when measured by premiums at end 2018, with insurance density (premiums per capita) of US\$4,481 at end-2018. There is significant participation from foreign insurance groups (US\$51 billion of imports of insurance services, mostly reinsurance, and US\$72 billion of insurance services in 2017 provided to U.S. persons by majority owned affiliates of foreign multinational enterprises).⁸ The U.S. insurance sector also has significant operations outside of the United States (US\$18 billion of exports of insurance services, mostly reinsurance and US\$62.3 billion of insurance services in 2017 provided by majority owned affiliates of U.S. multi-national entities) reflecting the international nature of the insurance business, the ability to leverage insurance expertise and business models across borders and the benefits of diversifying insurance risk across different geographical markets. While premia continue to grow despite healthy penetration in the mature market, the industry has been on a path of gradual consolidation in terms of a number of companies serving various markets over the last five years.

Life Insurance Industry

6. As at the end of 2018, there were 722⁹ licensed life insurance companies in the United States, down from 855 in 2009 and 763 in 2014. Total net admitted assets were

⁵ For further details, see *Use of Supervisory Standards in the Financial Sector Assessment Program—Understandings with Standard Setting Bodies*, July 2017.

⁶ Swiss Re sigma, *World Insurance: The Great Pivot East Continues* (2019).
<https://www.swissre.com/institute/research/sigma-research/sigma-2019-03.html>.

⁷ Haver Analytics, Flow of Funds.

⁸ Bureau of Economic Analysis, U.S. Department of Commerce, International Transactions, International Services, and International Investment Position Tables, Release Date: October 15, 2019.

⁹ National Association of Insurance Commissioners, *U.S. Life, A&H and Fraternal Insurance Industry 2018 Annual Results*.

US\$6.8 trillion including US\$2.5 trillion in separate account assets.¹⁰ The life insurance sector assets represent 8 percent of the financial sector assets which has consistently been the case for the last five years, and 37 percent of U.S. GDP at end-2018.¹¹

7. Life industry profitability is under pressure with a 26 percent decline in 2018, down to US\$28 billion. Total net written premium and deposits increased 4.4 percent (US\$32.9 billion) to US\$784.4 billion driven by increases in individual annuity business. Annuity business new premium was US\$218.6 billion in 2018, up 1.6 percent over 2017. However, this hides a trend of direct annuity premium increasing 12.4 percent, but assumed and ceded premium boomed to the tune of 167.3 percent and 131.4 percent respectively indicating that there is significantly increased activity in reinsurance of annuities. There is also anecdotal evidence of increasing longevity risk transfer transactions by the U.S. life industry. It is notable that the life RBC does not have a longevity risk component at the moment, although one is under development. The industry's net investment yield was 4.4 percent in 2018, showing a steady decline over the last 10 years declining from 5.1 percent in 2009 reflecting the impact of reinvestments at lower rates.¹²

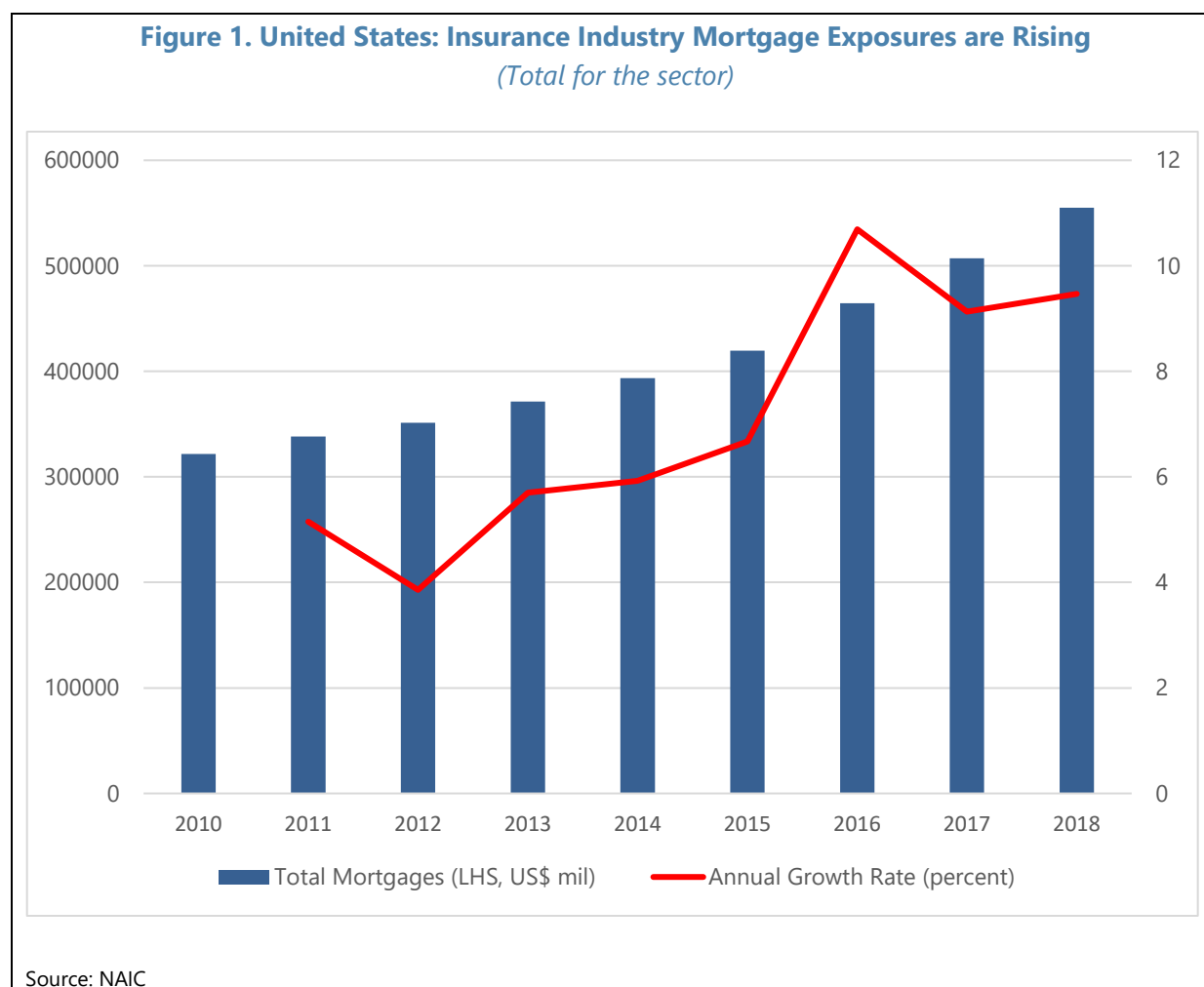
8. Broad classes of investment of life insurers have been stable over recent years (Figure 2). Main industry trends include de-risking on the liability side of the balance sheet and somewhat increasing risk on the asset side of the balance sheet in the search for yield. The industry has generally been trying to reduce its crediting rates and has slowly been reducing the richness of guarantees and product sales of certain products, such as variable annuities, to reduce risk. One exception to the stable trends is a growing share of mortgage loans in the investment portfolio of life insurers. According to the NAIC for year ended 2018, the largest increase in investments acquired was US\$44.5 billion in acquisitions of mortgage loans to an annual total of US\$521.5 billion and US\$16.8 billion in acquisitions of bonds to an annual total of US\$2.999 trillion.¹³ Large life insurers are active underwriters of commercial mortgages and the acceleration in acquisition of mortgage loans is becoming prominent in the overall investment mix, particularly the change between 2017 and 2018 (see Figure 1). Discussions with industry participants, rating agencies and insurance regulators all confirm that the profile of insurance industry mortgage loans is high quality in terms of security and diversification of underlying property security.

¹⁰ National Association of Insurance Commissioners, *U.S. Life, A&H and Fraternal Insurance Industry 2018 Annual Results*.

¹¹ Haver Analytics, Flow of Funds.

¹² National Association of Insurance Commissioners, *U.S. Life, A&H and Fraternal Insurance Industry 2018 Annual Results*.

¹³ National Association of Insurance Commissioners, *U.S. Life, A&H and Fraternal Insurance Industry 2018 Annual Results*.



Property and Casualty (P&C) Insurance Industry

9. While the total assets continue growing, the number of P&C insurers has declined over the last decade. Total assets of the P&C insurance industry have been steadily increasing from US\$1.8 trillion in 2015 to US\$2 trillion at end-2018. The sector can be divided into personal lines and commercial lines. Personal lines represent 53 percent of the net premium written with the top three lines comprising Private Passenger Auto liability, Homeowners Multiple-Peril and Private Passenger Auto Physical Damage. The top three commercial lines are workers compensation, other liability – occurrence and commercial multiple peril. At the end-2018 there were 2,600 P&C companies down from 2,831 in 2009 and 2,666 in 2014. The consolidation mainly reflects mergers and acquisitions with relatively few exits from the market.

10. Direct premiums written increased 5.4 percent in 2018 and claims experience improved markedly due to lower catastrophe losses culminating in a small underwriting profit of US\$3 billion. The industry is not highly concentrated with the top 10 groups making up 47 percent of the market in 2018. Private passenger auto liability is the most significant line of business with the highest amount of written premium.

11. The underwriting loss of US\$22.5 billion in 2017 was significantly impacted by catastrophe losses of US\$78 billion which fell to US\$52 billion in 2018. The combined ratio¹⁴ for 2018 was 99.1 percent—an improvement from the previous two years where combined ratios exceeded 100 percent reflecting the underwriting losses. In 2016 and 2017, combined ratios were 100.5 percent and 103.9 percent respectively.

12. Despite some recovery in 2018, investment yields have generally declined since 2009 against the backdrop of a relatively stable investment mix. The investment mix of property and casualty insurers has remained relatively stable over time (Figure 2). However, within categories some evidence of a search for yield can be seen with more acquisitions of bonds through private placements. Higher investment income earned led to an improvement in the investment yield to 3.26 percent. Net income increased some 50 percent to US\$57.9 billion compared to US\$38.7 billion in 2017. However, there were unrealized capital losses of US\$40.5 billion somewhat related to the equity market losses at the end of 2018, leading to a slight decline in policyholders' surplus from US\$786.0 billion at the end of 2017 to US\$780.0 billion at the end of 2018.

13. The surplus lines market is served by insurers within the United States and from outside the United States, known as alien syndicates and insurers. In the United States, insurers that are licensed to sell insurance in a particular state comprise the so-called admitted market. In turn, the surplus lines market consists of non-admitted (in individual states) insurers offering specialized products that provide cover for risks not available within the admitted market. There are approximately 160 alien entities that wrote approximately US\$14 billion in surplus lines premium in the United States secured by approximately US\$6 billion in trust funds. Alien premium accounts for approximately 30 percent of the surplus lines market. In order to place business with a surplus lines writer, a producer must provide evidence that the business could not be placed with an admitted insurer in that state by showing that the proposed business has been rejected by a number of admitted insurers. The NAIC International Insurers Department (IID) is the functional regulator of alien syndicates and insurers doing business in the United States as surplus lines carriers, per the 2010 Dodd–Frank Wall Street Reform and Consumer Protection Act (DFA). NAIC staff complete analyses on applications and renewals which are then reviewed and approved/denied by the Surplus Lines (C) Working Group.

14. State and federal government is involved in several P&C insurance areas:

- Flood and earthquake perils are usually excluded from homeowner policies in the United States, but homeowners can optionally take out cover. Most flood cover is provided by the National Flood Insurance Program (NFIP) and administered through private insurers which collect the premiums and pay claims (see the section on changing incidence and severity of natural catastrophes for more detail). California has implemented a government program through the California Earthquake Authority. This is a publicly managed, largely privately funded organization

¹⁴ A combined ratio (the ratio of net claims incurred to net premiums) of over 100 percent means that an insurer is making an underwriting loss.

that provides catastrophic residential earthquake insurance and encourages Californians to reduce their risk of earthquake loss.

- The Federal Crop Insurance Corporation, a wholly owned corporation of the U.S. Department of Agriculture, was created to carry out the federal crop insurance program as a supplement to private crop/hail insurance in 1938.
- Terrorism risk is privately written and backstopped by the federal government. The Terrorism Risk Insurance Act and subsequent program emerged after the 2001 terrorist attacks.

Health Insurance Industry

15. The health industry has almost doubled premium volume in a decade and bucks the trend of a declining number of companies in other sub-sectors, while maintaining profitability. There were 1010 health entities filing with the NAIC in 2018, an increase from 943 entities in 2014.¹⁵ Total assets of the health insurance industry amounted to US\$446 billion, which is a significant increase from US\$355 billion in 2015. A high growth rate in premiums continued in 2018, with a 6.5 percent increase to US\$707 billion up from the new earned premiums were of US\$527 billion in 2014 and only US\$373 billion in 2009. This fast growth in premiums allowed the industry to maintain profitability despite significantly increasing medical and hospital expenses from US\$323 billion in 2009 to US\$451 billion in 2014 up to US\$597 billion in 2018.

16. Federal government policy through the Affordable Care Act has had an impact on the industry, growing the number of individual accounts. However, results have been volatile in this market due to insurers gaining a better understanding of the market over time and due to ongoing government policy changes. However, this impact varies by state.

17. There has been a shift in the market to Medicare and Medicaid coverage as more insureds become eligible for these programs. Medicare and Medicaid federal programs represent 54 percent of the market in 2018, up from 51 percent in 2015. Group comprehensive cover remains the next largest segment of the market with US\$165 billion of premium compared to US\$384 billion of premium for combined Medicare and Medicaid. However, group comprehensive cover has experienced a decline over 10 years, down from US\$176 billion in 2009. In the same period, individual comprehensive cover has had a spectacular increase of 400 percent in premium from US\$19 billion to US\$76 billion but it still represents only about 11 percent of the market.

¹⁵ National Association of Insurance Commissioners, *U.S. Health Insurance Industry 2018 Annual Results*.

Insurtech

18. Insurtech developments are occurring through startups and established industry participants—insurers, reinsurers, agents and brokers.¹⁶ While most Insurtech developments initially focused on property and casualty personal lines, interest has started to grow in commercial lines as well. Innovation in life and annuity products generally lags behind that in property and casualty products but continues to grow. Initial Insurtech developments focused on distribution and customer engagement. Future growth is expected in products, pricing, and underwriting; policy administration; claims and back office efficiencies; and big data analytics. There is also an increasing focus on technologies and data that can be used to better assess and mitigate risk.

19. Insurtech startups are not currently proving to be disruptive to the traditional insurance market. The core business of insurance is not being disrupted as much as it is being transformed by Insurtech startups. Few Insurtechs are seeking to become “full stack” entities fully licensed and underwriting their own insurance policies but many are either getting licensed as producers or managing general agents and are interacting or partnering with incumbent insurers as a data or technology service provider. Incumbents are leveraging various mechanisms to determine strategic partnerships, acquisitions or subscribe to data or cloud-based software services. In some cases, insurers are choosing to establish their own innovation divisions or subsidiaries focused on Insurtech.

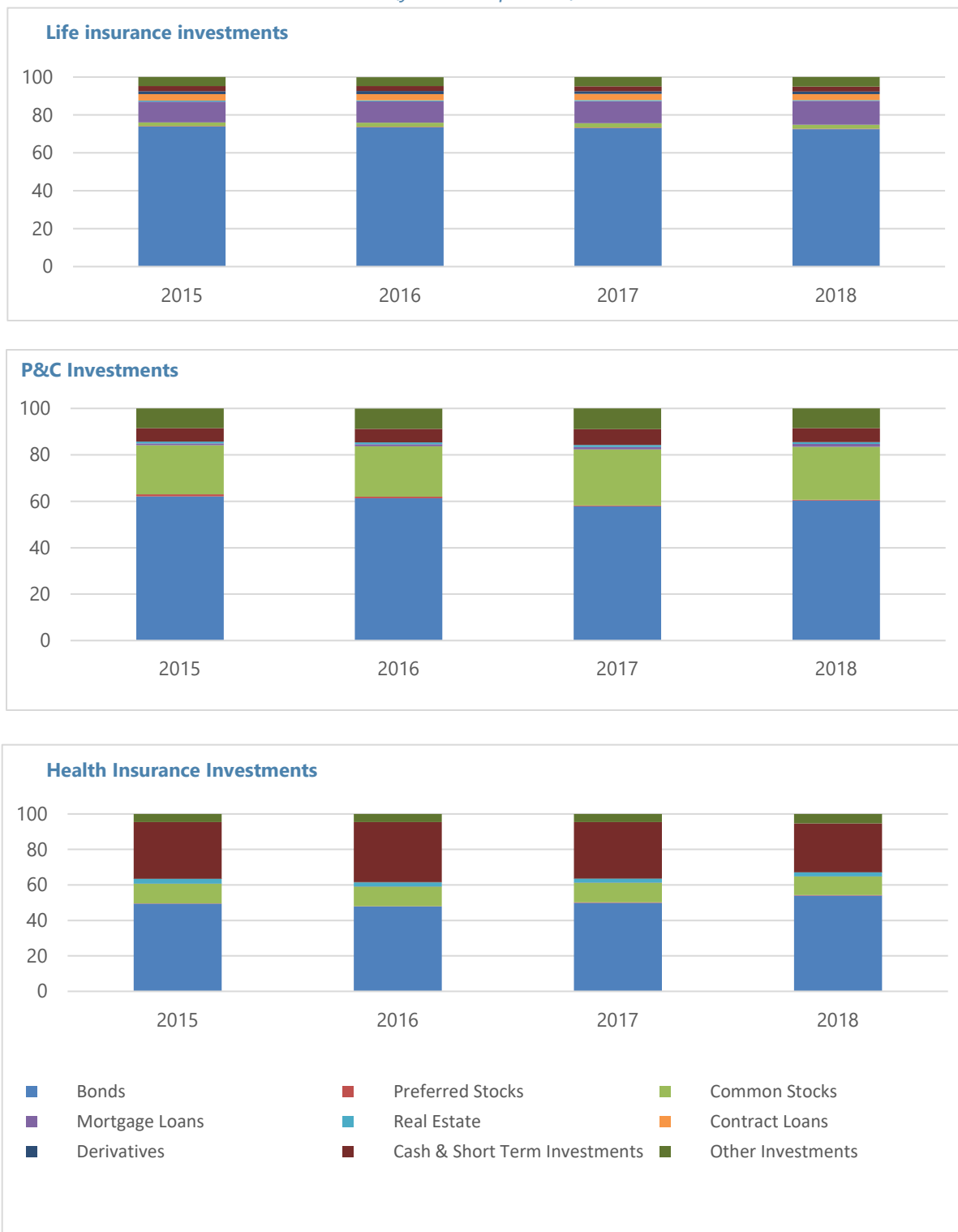
20. Industry incumbents are significant investors in technology. They do so through internal business units focused on innovation, venture capital investments or direct investments in Insurtech startups. The number of strategic technology investments by insurers and reinsurers hit a record high in the first two quarters of 2019 with 66 deals compared to 118 in total in 2018 and 119 in 2017¹⁷ based on the monitoring of Insurtech deals by FIO.

21. Aging hardware and infrastructure are often key constraints restricting insurance industry technological advancement. The FIO has found that larger insurers often develop new systems in parallel with their legacy systems, finding parallel development more efficient and cost-effective than attempting to upgrade existing systems. Smaller insurers may find it more difficult to update their systems and remain competitive.

¹⁶ For the purposes of this TN, the definition set out in the 2019 FIO Annual Report serves as a basis. A shortened form of that definition is as follows. “InsurTech,” is the insurance analogue to “Fintech,” and is broadly defined as the innovative use of technology in connection with insurance. InsurTech encompasses diverse technological developments, including: artificial intelligence and other forms of machine learning; “big data”; blockchain (distributed ledger technology); cloud infrastructure; drones; internet of things; smartphone apps; and peer-to-peer, usage-based, and on-demand insurance.

¹⁷ Willis Towers Watson, Willis Re, and CB Insights, Quarterly InsurTech Briefing Q2 2019.

Figure 2. United States: Insurance Sector Asset Structure—Broadly Stable
(year-end, percent)



Sources: NAIC and IMF staff calculations.

INSTITUTIONAL SETTING

A. Supervisory Responsibilities, Objectives, and Powers

U.S. States – Model Laws and Accreditation

22. Insurance is regulated primarily at the state level. Each state’s legislature enacts insurance laws and empowers agencies to implement and enforce those laws. The insurance regulators from the 50 states, the District of Columbia, and five territories created the NAIC. The NAIC conducts standard-setting activities and provides regulatory support to its member insurance regulators. The insurance regulators collectively control and govern the NAIC. Through the NAIC, state insurance regulators establish standards and best practices, conduct peer reviews, and coordinate their regulatory oversight.

23. Through the NAIC, state regulators have developed a set of model laws, regulations, and other NAIC requirements (Box 1). NAIC model laws have no binding effect on states unless enacted by state legislatures, and the NAIC maintains a record as to whether states have adopted a substantially similar state law. There is a core set of solvency model laws and regulations that are required to be adopted as part of the NAIC Accreditation Program. NAIC handbooks and manuals such as the Accounting Practices and Procedures Manual are incorporated into State law by reference and can therefore be updated regularly.

24. As some model laws demonstrate a very low level of adoption by states, the totality of NAIC Model Laws does not fully describe the universe of laws and requirements in the state-based system. Where there are low levels of enactment by NAIC member jurisdictions, it begs the question as to whether there was a priority need for such a model law to be developed. For example, the Interest-Indexed Annuity Contracts Model Regulation (Model #235) which was adopted by the NAIC in July 1998 has not been enacted in any NAIC member jurisdiction and only Vermont has a Bulletin related to this matter. In 2007, the NAIC changed the way model laws and model regulations were developed. The criteria for development of a model law or regulation since 2007 involves a two-pronged test. First, the subject matter of the model law or regulation must call for a minimum national standard or require uniformity among the states. The second part of the test is the NAIC members must be committed to dedicating significant regulator and NAIC staff resources to educating, communicating and supporting the adoption of the model law or regulation. When a committee, task force or working group decides to address an issue that does not meet the two-prong test, it may, instead, develop a guideline. However, there is evidence the despite this two-pronged test, adoption of model laws that are not included in the accreditation program continues to lack universality among NAIC members. For example, LTC Insurance Model Act (Model #640) from 2017 has not been enacted by any NAIC member, however, the new model replaces a prior iteration adopted by the majority of the states. Another significant example of non-adoption of important model laws is that one of the three lead state supervisors for Mortgage

Guaranty Insurers has not adopted the relevant model law so supervision according to the requirements of the model law has no legal basis.

Box 1. List of Model Laws and Other Requirements to be Enacted for Accreditation

Model Laws for Accreditation

- Model Law on Examinations
- RBC for Insurers Model Act
- RBC for Health Organizations
- Model Regulation to Define Standards and Commissioner's Authority for Companies Deemed to be in Hazardous Financial Condition
- Insurance Holding Company System Regulatory Act (up to 2010 revisions)
- Standard Valuation Law, Actuarial Opinion and Memorandum Regulation
- Property and Casualty Actuarial Opinion Model Law
- Credit for Reinsurance Model Regulation
- Life and Health Reinsurance Agreement Model Regulation
- Annual Financial Reporting Model Regulation (before 2014 revisions)
- Insurer Receivership Mode Act
- Model acts on Guaranty Funds
- Business Transacted with Producer Controlled Property/Casualty Insurer Act
- Managing General Agents Act
- Reinsurance Intermediary Model Act
- Risk Management and ORSA Model Act

Other Requirements

- NAIC's Accounting Practices and Procedures Manual (AP&P Manual)
- Standard promulgated by NAIC's Capital Markets and Investment Analysis Office
- Maximum net amount of risk to be retained by a property and casualty insurer for an individual risk is 10 percent of the company's capital or surplus
- Require a diversified investment portfolio
- Requirement for an actuarial opinion on reserves and loss and loss adjustment reserves by a qualified actuary
- Filing of annual quarterly statements with NAIC is a format acceptable to the NAIC

New Requirements from 2020

- Insurance Holding Company System Regulatory Act 2014 revisions
- Annual Financial Reporting Model Regulation 2014 revision
- 2009 Revisions to the Standard Valuation Law (PBR)
- Corporate Governance Annual Disclosure Model Act and Corporate Governance Annual Disclosure Model Regulation

Source: 2019 Accreditation Program Manual.

25. Consistency of solvency regulation and supervision is promoted across the U.S. states and territories through the NAIC Accreditation Program. The Accreditation Program requires a state insurance department to demonstrate to a team of reviewers that they meet legal, financial,

functional, and organizational standards. The Accreditation Program focuses on a subset covering solvency laws and regulations, including RBC requirements and risk-based financial analysis and examination processes. The Accreditation Program also addresses cooperation and information sharing with other state, federal, or foreign regulatory officials and the ability and willingness to take necessary action when insurance companies are identified as financially troubled or potentially financially troubled. Organizational aspects of insurance regulators are also addressed, including oversight by department management and personnel practices. Company licensing and review of proposed changes in control are also in scope for the Accreditation Program. Currently, all fifty states, the District of Columbia, and Puerto Rico are accredited. The Accreditation Program involves a comprehensive review every five years covering laws and regulations, regulatory practices and procedures, organizational and personnel practices and organization, licensing and change of control of domestic insurers. Then every year, state regulators must provide a self-assessment regarding their ability to meet accreditation standards on an ongoing basis.

26. Part A of the Accreditation process sets out the laws and regulations necessary to ensure a state insurance regulator has sufficient authority to regulate the solvency of a multi-state domestic insurance industry. Incorporation of a model law in the accreditation process is the only way to achieve close to 100 percent adoption of a model law across all states and territories.

27. The accreditation program is rigorous, and states have to promptly address identified issues. The Accreditation Program is overseen by the Financial Regulation Standards and Accreditation Committee (F Committee) with membership made up of 15 state insurance commissioners. In the last five years, a number of states have been required to undergo re-reviews and/or report to the F Committee to confirm a required change was made. In each instance, the re-review or report to the F Committee confirmed the expected progress or change had been made. Failure to maintain accreditation, will result in additional scrutiny of domestic companies by other state regulators in those states where those domestic companies are licensed to sell insurance products.

28. The 2015 Detailed Assessment Report (DAR) recommended that the NAIC review the scope and operation of the accreditation program, including the potential value of an element of external assessment and a quality assurance element to accreditation work. The work performed in 2019 is conducted by external assessors with reports provided to the F Committee. An accreditation modernization project, which went into effect in 2017, shifted the focus of accreditation reviews to place greater emphasis on substance and quality of work performed. Additional guidelines were also developed to emphasize and assess the role of department senior management. The accreditation program continues to evolve, and it is clear from discussions with state supervisors that the accreditation program is a driver to make changes ahead of accreditation assessments.

29. The approach to develop, legislate and incorporate model laws into accreditation standards is cumbersome. New risks demand agile development of regulatory solutions. A good example of this is the slow adoption of the Insurance Data Security Model Law (Model #668), which as at May 31, 2019 had been adopted by seven states after being adopted by the NAIC in October

2017. The U.S. Treasury Department has urged the states to adopt this law within five years or face federal preemption. There is clearly a need for a national approach to data security for insurers as there have been major data breaches at large insurers operating across many states.

30. The priority for developing model laws needs to focus on an identified need for a national approach to an issue. When an issue is not one where a common national approach is needed, then it is questionable that a model law is needed at all. Reforms relating to NAIC model law development introduced in 2007 recognized the need for more national consistency and ensuring significant regulator support before pursuing models. Given that there are many more model laws than those included in Part A of the Accreditation Program (which is there to assure that an accredited state has sufficient authority to regulate the solvency of its multistate domestic insurance), either the Accreditation Program scope should be expanded to ensure all matters of national consistency are addressed or model law development needs to be further focused on issues of important national consistency.

31. The approach to developing model laws, getting them adopted into all states' laws and then making them part of the accreditation program needs to be streamlined. A significant amount of time is taken to go through the process of state law making, particularly where some state legislatures are part-time legislatures. One way to address this would be to completely revise the architecture of state insurance law by creating a comprehensive state insurance legislative act which sets out subject matter that it may address and delegating powers for state regulators to make more specific requirements or incorporate NAIC model laws by reference. Subject matters addressed in the state insurance legislation should include at least all existing subjects of model laws. Such a structure should still allow for legislative review of the incorporation of model laws into State law, where necessary. This would mean that state regulators would be able to develop new regulations in a more agile way to address emerging risks, such as data security, on a nationally consistent basis while still giving the state legislatures ultimate authority over state laws. This could be achieved by the NAIC creating a model state insurance act with comprehensive regulation making power which would then go through the usual process of state adoption through state legislatures. The model state insurance act should be designed to replace the patchwork of existing legislation created to implement model laws and other state specific insurance requirements. Thereafter, all existing and future subject matter specific NAIC model laws (which focus on issues requiring national consistency as per the paragraph above) could be incorporated by regulation subject to legislative review and state specific matters could also be addressed by state insurance regulators through the same means.

32. As an example of the revised model law structure set out above, the state insurance act could incorporate a power for the state insurance regulator to set out detailed requirements on data security, making it clear that when it does so this law replaces other relevant state laws for insurers. A state regulator could then make its own regulation by copying the model law or incorporate the model law into regulation by reference. The state insurance law could set out a requirement for the state legislature to have a period of time to review the regulation before it becomes effective.

U.S. States—Supervisory Objectives

33. State insurance regulators each have their own missions and mandates granted under state legislation. In general terms, the state-based supervisory framework is designed to meet two principal objectives, the protection of the insurance consumer and the maintenance of solvent insurance companies. How this is expressed, the structure of mandates and how clearly these general objectives are addressed can differ significantly:

- **The New York Department of Financial Services (NYDFS) is an integrated financial services regulator.** Its overall mission is to “reform the regulation of financial services in New York to keep pace with the rapid and dynamic evolution of these services, to guard against financial crises and to protect consumers and markets from fraud”. The New York Financial Services Law provides a multi-faceted set of goals for the NYDFS¹⁸ which includes references to solvency and fair business practices, the main components of policyholder protection. While it does not include a specific reference to financial stability either within New York or the United States more generally, it does include a reference to state economic development which appears first among the goals.
- **Connecticut Insurance Law¹⁹ provides the Commissioner with the duty to administer and enforce provisions of the law and requires the Connecticut Insurance Department (CID) to adhere to minimum standards established by the NAIC for financial surveillance and regulation.** Consumer protection is akin to policyholder protection but again there is no reference to a financial stability objective. The CID describes its mission as consumer protection.
- **The Massachusetts Division of Insurance’s (MDI) mission is to monitor the solvency of its licensees in order to promote a healthy, responsive and willing marketplace for consumers who purchase insurance products.** Massachusetts General Law Chapter 175 sets out an expectation that the Commissioner will administer and enforce laws. Once again there is no reference to financial stability at a State level or national level.
- **The New Jersey Department of Banking and Insurance (NJDOBI) has a mandate to “regulate the banking, insurance and real estate industries in a professional and timely manner that protects and educates consumers and promotes the growth, financial stability and efficiency of those industries”.** It is notable that NJDOBI is the one state regulator that has a specific financial stability objective for the industries it regulates, including the insurance industry.

34. The 2015 DAR recommendation on the joint mandate statement remains elusive. Staff recommended that all states adopt the joint statement of the objectives of insurance regulation and

¹⁸ Section 102.

¹⁹ 38a-8-1 and 38a – 8.

review their legislation to ensure that it is consistent with the statement. To date, 17 states have adopted the NAIC's joint statement of objectives. The recommendation to remove elements of mandates that could conflict with the statement such as a mandate to promote or develop the insurance sector also remains outstanding. Clearly, New York still has a statutory mandate of this kind in its insurance law.

35. State insurance regulators should have a clear mandate for financial stability. A requirement to have financial stability included in the mission, objectives and/or the statutory mandate of state insurance regulators should become an accreditation standard. A clear mandate would ensure that state regulators have the confidence to deploy resources toward financial stability-related activities. This is particularly important as the NAIC moves forward with its Macroprudential Initiative and any further developments necessary to implement the IAIS holistic framework for the assessment and mitigation of systemic risk in the insurance sector.

36. As set out above despite individual differences, all state insurance regulators share two broad mandates that they balance—ensuring the financial solvency of insurers and consumer protection and these mandates can be in conflict. Market conduct supervision and the premium rate filings process are the two broad aspects of consumer protection. The conflict between mandates can occur where companies request actuarially justified premium rate increases which are positive for solvency of the companies but may be denied due to the consumer protection mandate. The case of the LTC sector is a prime case in point. LTC writers have been requesting very significant premium rate increases (sometimes more than 200 percent) which are actuarially justified given the product design, but state regulators are generally approving much smaller incremental increases to avoid shock to policyholders. This is undoubtedly causing stress to the solvency of some LTC writers. Furthermore, there are different decisions being made in different states leading to cross subsidization by those states granting higher increases compared to those states granting smaller increases in premium rates.

37. It would be preferable for the economics of insurance and market discipline to apply through competition, particularly in a highly competitive and vibrant market such as the United States. However, it is acknowledged that the rate and form filing, and approval mandate has existed for a long time in the United States and is not unique among the advanced economies. In applying regulatory judgement about rates and forms, state insurance regulators need to be cautious that market distortions are not introduced due to well-intentioned regulatory intervention. Also, of concern is whether diversification of risk across the United States can be adequately taken into account with state-by-state rate filing decisions. A state-by-state approach may create a higher cost of insurance and so states should coordinate to ensure the benefits of diversification across a geographically diverse and large market such as the United States can be realized by consumers.

U.S. States—Independence of State Insurance Regulators

38. Appointment and dismissal procedures for the state commissioners may expose the regulators to political influence. As at 2018, of the 56 insurance commissioners that are members of the NAIC, 12 are elected and 44 are appointed. Of those 44 commissioners who are appointed,

they may serve for a fixed term of office or at the pleasure of the governor or appointing body. The election of insurance commissioners may create a level of independence from government but exposes them to the potential perception of industry influence and politicization of issues related to insurance supervision and regulation. Recent press reports regarding the funding of elected commissioners' election campaigns are an indication of how this model can create the perception of a lack of independence of the insurance commissioners. The state-level arrangements are as follows:

- **In New York, the Superintendent of Financial Services who heads the NYDFS is appointed by the governor with the advice and consent of the New York Senate.** The Insurance Division is one of five divisions headed by an Executive Deputy Superintendent. The Superintendent holds office at the pleasure of the governor as does senior management within the NYDFS at the level of Deputy Superintendent and above. This exposes NYDFS senior management to the possibility of replacement when a new governor is elected or if a governor does not want to continue with the service of the NYDFS senior staff.
- **In Connecticut, the insurance commissioner is appointed by the governor and serves at the governor's pleasure.**²⁰ All staff of the CID are appointed by the Insurance Commissioner under civil service employment contracts. There are no particular requirements regarding the dismissal of the Insurance Commissioner.
- **In Massachusetts, the Division of Insurance is overseen by the Office of Consumer Affairs and Business Regulation and is part of the portfolio of The Executive Office of Housing and Economic Development within the governor's office.** The commissioner of insurance is appointed by the governor for the same term as the governor and serves at the pleasure of the governor.²¹ The commissioner of Insurance can appoint and remove senior staff, including the First Deputy Commissioner with the approval of the governor and council.²² It is also notable that the Commonwealth of Massachusetts General Law provides for a Department of Banking and Insurance incorporating a Division of Insurance, although that departmental structure does not exist.
- **In New Jersey, the commissioner is appointed to head the NJDOBI by the governor (and confirmed by the Senate) for the term of the governor and serves at the pleasure of the governor.** The commissioner is a member of the governor's cabinet. The Director of Insurance and Director of Banking are also appointed by the governor and confirmed by the Senate.

39. The 2015 FSAP recommendations related to appointment and dismissal of commissioners have not been implemented. The 2015 DAR recommended that states reform arrangements for the appointment and dismissal of commissioners, providing for fixed terms for all,

²⁰ General Statutes of Connecticut Sec 38a-7.

²¹ Commonwealth of Massachusetts General Laws, Part I, Title II, Chapter 26, Section 6.

²² Commonwealth of Massachusetts General Laws, Part I, Title II, Chapter 26, Section 7.

with dismissal only for prescribed causes and with publication of reasons. No state has reformed the method of appointment and dismissal of commissioners since these recommendations were made.

40. There should be clear criteria for appointment and dismissal of the commissioners and insurance commissioners and their staff be appointed for fixed terms not aligned to the term of a particular governor or be appointed for open-ended terms. The reasons for any dismissal of a commissioner should be made public and be subject to appeal. Operational independence combined with accountability and transparency are important to the legitimacy of any supervisor. Independence needs to be both perceived and demonstrated. For example, the appointment process, including that some commissioners serve at the governor's pleasure meaning likely changes when a different governor is elected, give a perception of a lack of independence. Whether there is actual lack of independence can only be judged based on decisions made and the IMF has not looked into that matter. The focus of these recommendations is on perception of independence and avoiding potential for actual lack of independence in decision making. There is no finding of actual lack of independence.

41. State governments should pass on all assessments for cost recovery of state insurance regulators to those state insurance regulators. Stable, predictable and transparent financing and the ability of a supervisor to deploy those resources as it sees fit are all critical to the independence of a supervisor. Of the four state insurance regulators visited, all are subject to state government budgeting processes despite issuing assessments to insurers and producers to recoup the costs of regulation and supervision. Assessments to recoup the costs of the state insurance regulators go to the general account of state governments and state insurance regulators are allocated an amount of state government budget that in all cases did not 100 percent reflect the assessments issued to recoup costs. Greater budgetary independence should go hand in hand with transparency on deployment of those resources and accountability of the supervisors to the state legislatures for those resource allocation decisions.

42. Resources available to state insurance regulators vary. The IMF met with many excellent, dedicated staff at state insurance regulators. However, as is the case in many jurisdictions, there are clear issues for state insurance regulators to compete in the market for insurance professionals in order to be able to attract and retain staff. The significance of this issue varies by state. State civil service pay scales restrict the ability of state insurance regulators to provide market competitive remuneration to insurance professionals, such as actuaries. Insurance professionals, and more widely financial services professionals, work in an industry where staff in the private sector are well remunerated with typical civil service pay scales below the level necessary to attract and maintain relevant skill sets for effective insurance supervision.

43. The use of external experts is correlated with the inability to attract and maintain expertise in-house, such as actuaries. While the use of external experts can have its advantages, such as accessing expertise like cyber security experts, it also means that some of the knowledge of the insurer's risk culture, management competence, governance and control processes that external experts gain from participating in financial examinations may not be maintained within the state insurance regulators. This is mitigated to some degree, however, by the practice of having external

experts work under the direct supervision of internal staff. When remuneration of state regulator staff is better aligned with the market for insurance and financial services professionals, state regulators should consider reducing the use of external experts for financial examinations.

44. The need for skill sets that involve professional judgement with the ongoing implementation of the risk-focused surveillance process will exacerbate staffing issues. All four states visited have a significant cohort of very experienced older staff, some not that far from retirement age. It is understood that recruiting younger staff has proven a challenge and restrictions on remuneration appear to impact the ability of state regulators to attract and develop the next generation of senior insurance regulators.

45. States need to consider ways in which state insurance regulators can break free of civil service remuneration constraints and determine their own resourcing needs, while maintaining appropriate accountability for the use of public resources. One way to achieve that may be to look at restructuring state insurance regulators as independent commissions or statutory authorities. The main point of this is to legally establish insurance regulators in a way such that the usual salary schedules or pay grades, which may not be suitable for insurance or financial sector professionals, do not apply and that there is independence in terms of funding and budget but with appropriate government oversight and accountability. This has been achieved in other jurisdictions.²³

Federal Government Role

Federal Reserve

46. In the insurance regulation and supervision context in 2019, the Federal Reserve is the primary, consolidated federal regulator of savings and loan holding companies (SLHCs). At the time of the 2015 FSAP, there were three insurance nonbank financial companies subject to Federal Reserve supervision, however one successfully challenged its designation by FSOC in court and the two others had their designation rescinded by FSOC. As of 2019, there are eight SLHCs predominately engaged in the business of insurance subject to Federal Reserve supervision, which will be referred to as insurance depository institution holding companies. These eight groups represent approximately 10 percent of the total insurance market across life, health and P&C.²⁴ The Federal Reserve currently does not supervise any insurance nonbank financial companies. The Federal Reserve, under the DFA, has a mandate to be the consolidated federal regulator of nonbank financial companies the FSOC has determined should be subject to supervision by the Federal Reserve under the DFA.

²³ For example, the Prudential Regulation Authority in the U.K. is wholly owned by the Bank of England (itself a public corporation) and its employees are not civil servants. Another example is the Australian Prudential Regulation Authority which was established by the Australian Prudential Regulation Authority Act 1998 and its employees are not subject to the Public Service Act 1999.

²⁴ Please refer to the TNs on Banking Supervision and on Supervision of Financial Markets Infrastructures and Resilience of Central Counterparties for elaboration of the Federal Reserve's broader role in the financial sector.

47. The objective of the Federal Reserve’s regulation and supervision of insurance depository institution holding companies is to ensure that they operate in a safe and sound manner and in compliance with applicable laws and regulations. The Federal Reserve authority to supervise insurance depository institution holding companies, including conducting examinations, is provided in the Bank Holding Company Act of 1956 (BHC Act), Home Owners’ Loan Act (HOLA), the International Banking Act of 1978, and DFA. For insurance depository institution holding companies, the Federal Reserve’s supervisory approach includes ensuring enterprise-wide safety and soundness and protection of the subsidiary insured depository institution. The Federal Reserve conducts its supervision of the insurance depository institution holding companies in coordination and collaboration with State insurance supervisors which are focused on insurance policyholder protection. Given the Federal Reserve’s role is in collaboration with state insurance regulators and it has a different focus toward the safety and soundness of insured depository institutions from the state regulators, the scope of this TN does not include a fulsome analysis of the supervision approach of the Federal Reserve. It is notable that the regulatory framework for insurance depository institution holding companies is still under development, with RBC requirements subject to consultation. A discussion of this latter issue is set out in the section on regulation.

Federal Insurance Office (FIO)

48. The DFA established FIO within the U.S. Treasury. The overarching role of the FIO is advising the Secretary of the Treasury (the Secretary) on major domestic and prudential international insurance policy issues. Another key role is that the FIO director is a non-voting member of the FSOC.

49. The FIO led the negotiation, from a U.S. perspective, of the *Bilateral Agreement between the United States and the European Union on Prudential Measures Regarding Insurance and Reinsurance (U.S.-EU Covered Agreement)*.²⁵ The U.S.-EU Covered Agreement addresses group supervision, reinsurance (including collateral) and exchange of information between supervisory authorities. Among other things, the agreement, signed on September 22, 2017, promises that EU reinsurers with a minimum amount of own funds equivalent to US\$250 million and a solvency capital requirement (SCR) of 100 percent under Solvency II, and which met certain other conditions specified in the agreement, will not have to post collateral for liabilities they assume from U.S. ceding insurers while the U.S. state insurance regulators will allow the U.S. ceding insurers to take statutory credit for such reinsurance. Implementation in the United States is dependent on adoption of conforming changes to the credit for reinsurance laws in the system of state insurance regulation. For U.S. insurance groups operating in the EU and for U.S. reinsurers assuming business from EU ceding insurers, the EU agreed not to apply aspects of its Solvency II regulation to U.S. insurers and reinsurers. For both the United States and the EU, the

²⁵ Reflecting the United Kingdom’s plans to exit the EU, a Bilateral Agreement between the United States and the United Kingdom on Prudential Measures Regarding insurance and Reinsurance (U.S.-U.K. Covered Agreement) was agreed on December 18, 2018. This U.S.-U.K. Covered Agreement is based on the provisions of the U.S.-EU Covered Agreement.

agreement addresses recognition of home country group supervision with respect to group capital, governance and prudential reporting. In part, and subject to certain conditions specified in the agreement, this means that U.S. insurance groups operating in the EU will avoid the potential of EU determined group capital requirements and U.S. reinsurers are not required to establish local operations to assume business from EU insurers if they maintain capital and surplus equivalent to EUR 226 million with a RBC of 300 percent of authorized control level RBC (ACL).

Box 2. FIO Authority Under the Dodd-Frank Act (DFA)

Among the specific tasks that the FIO is authorized to conduct under the DFA are to:

- Monitor all aspects of the insurance industry, including identifying issues or gaps in the regulation of insurers that could contribute to a systemic crisis in the insurance industry or the U.S. financial system.
- Monitor the extent to which traditionally underserved communities and consumers, minorities, and low- and moderate-income persons have access to affordable insurance products regarding all lines of insurance (except health insurance).
- Recommend to FSOC that it designate an insurer, including the affiliates of such insurer, as an entity subject to regulation as a nonbank financial company supervised by the FRB.
- Assist the Secretary in the administration of the Terrorism Risk Insurance Program, as established in Treasury under the Terrorism Risk Insurance Act of 2002, as amended.
- Coordinate federal efforts and develop federal policy on prudential aspects of international insurance matters, including representing the United States, as appropriate, in the International Association of Insurance Supervisors (IAIS) and assisting the Secretary in negotiating covered agreements.
- Determine whether state insurance measures are preempted by covered agreements.
- Consult with the states (including state insurance regulators) regarding insurance matters of national importance and prudential insurance matters of international importance.
- Perform such other related duties and authorities as may be assigned to FIO by the Secretary.

In addition, before the Secretary makes a determination to resolve an insurer under Title II of the DFA, the Secretary must first receive a written recommendation from the FIO Director and the Federal Reserve. Additionally, FIO and the Federal Reserve coordinate on the performance of annual analyses of nonbank financial companies supervised by the Federal Reserve, particularly with respect to stress testing, to evaluate whether such companies have the capital, on a consolidated basis, necessary to absorb losses as a result of adverse economic conditions.

Source: 2019 Federal Insurance Office Annual Report.

50. The obligations of the EU and the United States under the U.S.-EU Covered Agreement are fully applicable 60 months following signature (September 23, 2022). U.S. states which are not in compliance with the provisions of the covered agreement concerning reinsurance collateral by the first day of the months 60 months after signing of the agreement face potential pre-emption by Federal Law. The NAIC adopted in June 2019 its Credit for Reinsurance Model Law and Regulations which are intended as the basis for adoption and implementation of changes to state law consistent with the covered agreements. In the coming months, FIO will continue to focus on its

obligations—consistent with the timing under the agreement—to ensure that each state conforms its laws to the terms of the agreement, and that any state insurance measures are not inconsistent with the U.S.-EU Covered Agreement.

51. The U.S.-EU Covered Agreement may result in arbitrage opportunities for European groups with U.S. operation in the absence of a U.S. group capital requirement. Without analyzing the relative strength of U.S. and EU capital requirements, it is possible to consider this issue in the context of the use of captives in the United States discussed below under Regulation where there is an allowed arbitrage occurring within the U.S. system.

REGULATION

A. Governance

State Regulation

52. The NAIC adopted the Corporate Governance Annual Disclosure Model Act and Regulation (Model #305/#306) in November 2014 to collect more detailed information on insurers' corporate governance practices. The Model Act does not prescribe new corporate governance standards, but rather requires tailored, confidential reporting of governance policies and procedures. The Model Act is an accreditation requirement, effective January 1, 2020. This is a step in the right direction but requires disclosure of what insurers and groups do with respect to governance rather than requiring them to implement a good model of governance.

53. The state-based system uses both regulation and supervision to fulfill its mission. Some Requirements applied in other regulatory systems through regulation (e.g., governance or risk and control issues) are addressed through supervision. Certain prescriptive elements of good governance and risk management structures are not incorporated into laws, rather the new corporate governance disclosure model act simply requires disclosure. If these elements of governance structures are not working, this approach raises a question as to whether enforceability is there without codifying the requirements. While there are wide powers under *Model Regulation to Define Standards and Commissioners Authority for Companies Deemed to be in Hazardous Financial Condition*, potential shortcomings are discussed below in relation to supervision.

54. States should put in place regulatory governance and risk management requirements to bring the state regulation system more clearly in line with the ICPs. This would require explicit references in statute or regulation about requirements of insurers in terms of specific governance elements such as: remuneration policies, fit and proper requirements (other than review of biographical information and background checks for key positions) and the organization of certain risk functions (e.g., actuarial and compliance). For further details of regulatory requirements and necessary regulatory powers with respect to risk management and governance, see ICPs 7 and 8. These are aspects that are assessed in examinations and are part of the risk assessment conducted by financial analysts. However, from reading the handbooks it is not entirely clear what

action a supervisor would take if deficiencies were found with respect to these matters, particularly if the insurer was in a very sound financial condition at the time. It is necessary to clarify expectations, create greater enforceability of the requirements and reduce differentiation among states that could occur through different interpretations of supervisory handbooks.

55. The lack of regulatory governance and risk management requirements was an issue that was identified in the 2015 DAR and has not been addressed. The Corporate Governance Annual Disclosure Model Act and Regulation (Model #305/#306) does not address this deficiency nor does a supervisory process.

Federal Regulation

56. The FRB has set out its expectations for corporate governance for all supervised institutions, including those with insurance operations, with assets over US\$50 billion.²⁶ This guidance supports a tailored approach that accounts for the unique risk characteristics of each firm while covering the core areas of supervisory focus. It specifies the Federal Reserve's expectations around two main areas: (i) enhancing the resiliency of a firm, including guidance on capital and liquidity planning and positions; corporate governance; recovery planning; and management of core business lines, and (ii) reducing the impact of a firm's failure, including guidance on management of critical operations; support for banking offices; resolution planning; and additional macroprudential supervisory approaches to address risk to financial stability.

B. Valuation, Investments, Reinsurance, Captives, and Capital

State Regulation—General Description

57. Important in the financial analysis and solvency assessment of insurers are the laws and requirements of each state with respect to the valuation of insurance obligations (i.e., reserves) and investments, reinsurance, captives, and capital. The NAIC Financial Regulation Standards and Accreditation Program lays out the minimum requirements in each of these areas for states to maintain their NAIC accreditation.

58. The NAIC accreditation standards for each state require that all insurers file the appropriate NAIC annual return which includes financial statements. They should be prepared in accordance with the NAIC's *Annual Statement Instructions* and follow the accounting procedures and practices prescribed by the *AP&P Manual*.

59. Underpinning the preparation of the NAIC statutory financial statements are a set SAP. SAP is prescribed in the insurance statutes, regulations, administrative rules of the various states, and in the *AP&P Manual*, with reporting requirements contained in the *Annual Statement*

²⁶ SR Letter 12-17.

Instructions and NAIC designation determinants, which impact the valuation, contained in the Purposes and Procedures Manual of the NAIC Investment Analysis Office (P&P Manual).

60. “Permitted” or “prescribed” statutory accounting practices are variations from the accounting practices detailed in the AP&P Manual. “Permitted” accounting practices must be explicitly approved by the domiciliary state insurance departments on a company-specific basis. “Prescribed” accounting practices are variations from the AP&P Manual detailed in state statute, therefore they are applicable to all insurers domiciled in a specific state. All variations from the AP&P Manual (whether “permitted” or “prescribed”) are required to be detailed in Note 1 of the statutory financial statements. This Note 1 reconciles items from “state basis” to the “SAP basis” to ensure consistent comparisons of financial condition for all insurers across all U.S. jurisdictions. In addition, permitted practices are disclosed and reported by the domiciliary regulator to each state regulator where the insurer holds a license in accordance with the AP&P Manual Preamble Section 10 and through the NAIC ISITE system. The primary concerns of insurance regulators are the protection of the policyholders and the solvency of each insurer; therefore, SAP is primarily directed toward the determination of an insurer’s financial condition and an insurer’s ability to satisfy its obligations to policyholders and creditors when they come due.

61. As stated in the preamble to the NAIC AP&P Manual, SAP is based on the concepts of conservatism, consistency, and recognition. These concepts are defined within the AP&P Manual in qualitative terms. For example, “conservatism” is defined in Box 3. Most of the description of conservatism (albeit limited and reasonable) is in line with most jurisdictions view of margins over current estimate assumptions (MOCE). However, the concluding words regarding smoothing of surplus fluctuations is not a goal for other jurisdictions.

Box 3. Example of AP&P Definitions: Conservatism

Conservatism—Financial reporting by insurers requires the use of substantial judgments and estimates by management. Such estimates may vary from the actual amounts for various reasons. To the extent that factors or events result in adverse variation from management’s accounting estimates, the ability to meet policyholder obligations may be lessened. In order to provide a margin of protection for policyholders, the concept of conservatism should be followed when developing estimates as well as establishing accounting principles for statutory reporting.

Conservative valuation procedures provide protection to policyholders against adverse fluctuations in financial condition or operating results. Statutory accounting should be reasonably conservative over the span of economic cycles and in recognition of the primary responsibility to regulate for financial solvency. Valuation procedures should, to the extent possible, prevent sharp fluctuations in surplus.

Source: AP&P Manual, Preamble, Paragraphs 32–33.

Box 4. Examples of SAP versus GAAP Differences for Property & Casualty, Life/A&H Insurers, Fraternal Societies, and Health Entities

Acquisition Costs—Under SSAP No. 71—Policy Acquisition Costs and Commissions, all acquisition costs, such as commissions and other costs incurred in acquiring and renewing business, are expensed as they are incurred. Under GAAP, those acquisition costs that are primarily related to, and vary with, the volume of premium income are capitalized as an asset and are then amortized by periodic charges to earnings over the terms of the related policies.

Valuation of Bonds and Redeemable Preferred Stocks—Under SSAP No. 26R—Bonds and SSAP No. 32—Preferred Stock, bonds and redeemable preferred stocks are carried at amortized cost or lower of amortized cost or fair value in accordance with the NAIC designation for the securities. For securities reported at amortized cost, if the insurer has made a decision to sell the security, or if the security is other-than-temporarily impaired, the SAP guidance requires recognition of a realized loss down to the current fair value, with the fair value reflecting the new cost basis of the security. Under GAAP, bonds and redeemable preferred stocks are carried at amortized cost only if the insurer has the ability and intent to hold the securities to maturity and there are no (other than temporary) declines in fair value, otherwise, they are carried at market.

Deferred Income Taxes—Under SSAP No. 101—Income Taxes, after application of a valuation allowance determined in a manner consistent with U.S. GAAP, deferred income tax assets are limited under admissibility test and amounts over the criterion are non-admitted. Under GAAP, a valuation allowance is used to reduce the asset to what can be realized. Also, under SSAP No. 101, changes in deferred tax assets (DTAs) and deferred tax liabilities (DTLs) are reported as a separate line in the surplus section. Under GAAP, changes in DTAs and DTLs are recognized in earnings.

Goodwill—Under SSAP No. 68—Business Combinations and Goodwill, goodwill represents the difference between the cost of acquiring the entity and the reporting entity's share of the book value of the acquired entity. Under GAAP, goodwill represents the difference between cost of acquiring the entity and the fair value of the assets less liabilities acquired. Under SAP, aggregate goodwill is limited to 10 percent of the insurer's adjusted capital and surplus. Amounts over 10 percent are non-admitted. (The adjusted capital and surplus calculation remove goodwill, EDP equipment, operating system software, and deferred income taxes).

Surplus Notes—Under SSAP No. 41R—Surplus Notes, surplus notes meeting certain requirements are considered as surplus. Under GAAP, surplus notes are considered to be debt.

Reinsurance in Unauthorized Companies—Under SSAP No. 62R—Property and Casualty Reinsurance, collateral is required on business reinsured with companies not authorized to do business in the insurer's state of domicile. Under GAAP, reinsurance recoverables are allowed regardless of whether the reinsurer is authorized, subject to tests of recoverability.

Source: The AP&P Manual is the authoritative source for statutory accounting guidance. NAIC Financial Analysis Handbook, pages 21–22.

62. Where SAP stresses measurement of the ability to pay claims in the future, U.S. GAAP stresses measurement of emerging earnings of a business from period to period (e.g., matching revenue to expenses). Box 4 discusses some of the important differences between SAP and U.S. GAAP.

63. The NAIC accreditation standards for each state require that securities owned by insurance companies be valued in accordance with those standards promulgated by the NAIC's Capital Markets and Investment Analysis Office. Other invested assets should be required to be valued in accordance with the procedures promulgated by the NAIC's Financial Condition (E) Committee. In addition, each state requires a diversified investment portfolio for all domestic insurers both as to type and issue and include a requirement for liquidity. Each state maintains laws that restrict the types of assets that an insurer may purchase. These laws also place aggregate or percentage limits of certain types of assets to ensure diversification of risk. A few states have adopted a version of the *NAIC Investments of Insurers Model Act*.

64. The NAIC accreditation standards for each state require that the valuation of insurer policyholder obligations is defined through NAIC's *Standard Valuation Law, Actuarial Opinion and Memorandum Regulation and Property and Casualty Actuarial Opinion Model Law* or substantially similar provisions. Due to the complexity of insurer liability valuation, a combination of NAIC actuarial guidelines (AGs) and relevant actuarial standards of practice (ASOPs) set by the American Academy of Actuaries have been put in place to value specific products. Subsequent sections cover these issues in more depth. Life insurance is subject to the most complexity in this area due to the long-term nature and complexity of its products. On the other hand, property and casualty as well as health reserving is subject to the least.

65. The NAIC accreditation standards for each state require that insurers have and maintain a minimum level of capital and surplus to transact business. The state should have the authority to require additional capital and surplus based upon the type, volume and nature of insurance business transacted. The *RBC for Insurers Model Act* and the *RBC for Health Organizations Model Act* or provisions substantially similar are included in state laws or regulations.

66. Most risk retention groups (RRG) formed as captives are not required to comply with the NAIC's SAP, RBC or holding company statutes thereby affecting the traditional methods used to assess insurer financial condition. RRGs are formed so that businesses with similar insurance needs pool their risks in the form of an insurance company. Since most states do not require RRGs to follow SAP when preparing their financial reports, the results may not be as meaningful or reliable and even misrepresented in comparison with direct insurers due to their use of reporting tools such as GAAP, modified SAP, and modified GAAP.

State Regulation—Life Insurance

Balance Sheet Valuation

67. The assets of a life insurer, including separate account assets are valued according to SAP as defined by the NAIC. Bonds, mortgages, redeemable preferred stocks of the general account are typically valued at amortized cost while general account equities and most separate account assets are valued at fair value. Through the mechanism of the Interest Maintenance Reserve (IMR) realized capital gains and losses on debt securities and preferred stocks that result from changes in the overall level of interest rates, are amortized into investment income over their remaining term through the IMR. This amortization of investment gains/losses over time was intended to preserve the presumed matching of the assets to the underlying long-term life insurer liabilities. The amount of losses that can be amortized is limited by the restriction that the IMR cannot be negative. The Asset Valuation Reserve (AVR) also has some buffering characteristics but it operates as a form of assigned surplus held in the form of a liability. The AVR includes realized non-interest-related (default) and realized and unrealized equity risks. Changes in the AVR are accomplished through changes in surplus not through the income statement. The AVR was designed before the advent of the RBC calculation to assign surplus for future asset default losses and equity declines and thereby restrict the amount of distributable surplus to shareholders. An insurer's AVR balance has no bearing on the calculation of required capital or its RBC ratio.

68. The valuation of a life insurer's policy obligations (e.g., reserves, technical provisions) is a complex area that has evolved over time. In its simplest form a reserve is equal to the present value of future obligations (e.g., all policyholder benefits) expenses for administering those policies minus the present value of future premium to be received. Historically, life insurance products were of relatively simple design (e.g., whole life, endowment, level term, etc.). During such time net premium reserving was used whereby the states would dictate the mortality table and interest assumption to be used to determine the net premium for each policy and hence its statutory reserve (i.e., Commissioners Reserve Valuation Method or CRVM). It was intended that once established this reserve basis for each cohort of insured lives (i.e., each cohort would be one or more issue years with the same net premium assumptions) would remain in effect until all the policies left the books. In more modern times, insurance products became considerably more complex (e.g., universal life type products with various forms of guarantees, various forms of renewable term, etc.). These products arose from a significant rise in interest rates in the early 1980's and a wave of consumer demand for products better meeting their needs. It was at this time that difficulties arose in the use of the CRVM methods then in place. The interest rate spike alerted the insurance industry and supervisors alike to the risks of interest rate mismatch risk, especially in annuity portfolios. The second trend resulted in the emergence of a wide variety of life insurance products featuring non-level premiums and non-level benefits.

69. In response to possible mismatch risks the state of New York promulgated Regulation 126 in 1990 to introduce mandatory cash flow testing to assess the adequacy of the assets backing annuity and single premium life obligations. Over time, this methodology has been improved and accepted more broadly as a useful tool for assessing asset adequacy for

blocks of business. In 2001 the American Academy of Actuaries promulgated ASOP 22 to assist actuaries in conducting asset adequacy testing. The NAIC requires the qualified actuary appointed by the Board to conduct and opine on asset adequacy testing for all lines of business.

70. The NAIC and state insurance regulators developed regulation “XXX reserves” in 2000 for certain term life insurance policies and “AXXX reserves” for certain universal life insurance policies. There was life insurance product innovation in the 1980's and 1990's featuring non-level premium and non-level benefits, which was intended to take advantage of then current valuation methods (i.e., to lower reserve levels). The regulatory action to develop XXX reserves and AXXX reserves was a direct response. Insurers viewed these reserves as excessively redundant and turned to the use of captives (discussed later in this TN) to lay off or finance the redundant reserves. The NAIC and state insurance regulators have attempted to achieve more uniformity with captive reinsurance transactions. In December 2014, AG 48 was adopted by the NAIC Executive (EX) Committee and Plenary and was put into effect on January 1, 2015. AG 48 defines the rules for new life XXX and AXXX reserve financing transactions executed after the effective date. Furthermore, with the implementation of PBR requirements January 1, 2020, the reserving incentive for these transactions should be lessened in the future.

71. The most recent change in NAIC reserving requirements for life insurers is PBR. The Valuation Manual for PBR became effective in 2017. There is a three-year transition period, starting on January 1, 2017, during which companies can choose to move some or all applicable new business (not in-force business) to PBR. Beginning in January 2020, compliance with PBR is mandatory for all companies not otherwise exempted and PBR becomes an NAIC accreditation standard for all member states. PBR²⁷ requires the insurer to calculate the reserves in three ways and hold the highest of the following results:

- *A rules-based net premium type reserve* - This is in some ways similar to what's in place today in the United States, but it has been calibrated to produce a reasonably conservative floor for reserves.
- *A deterministic reserve* - This is a gross premium reserve, using company specific assumptions, plus margins, with some regulatory guardrails. The assumptions are to be periodically reviewed and updated as appropriate.
- *A stochastic reserve* - This is a Conditional Tail Expectation 70 of the greatest present value of accumulated deficiencies across prescribed economic scenarios.

72. Overall, the life insurance regulatory authorities are to be commended on the introduction of modern methods valuation in the form of PBR but need to be mindful of the implications of creating a “mixed bag” of valuation requirements for pre- and post-PBR

²⁷ Companies do not have to calculate a stochastic reserve if they perform and pass a stochastic exclusion test, where allowed. For some product types, a deterministic exclusion test may then be performed which, if passed, allows the company to avoid calculating the deterministic reserve.

business (Table 2). Retaining some guardrails to protect against possible excesses arising from early application of judgement by insurers is positive. Nonetheless, pre-PBR reserves will continue to use the traditional conservative net premium method and locked-in assumptions at issue for the in-force business. PBR introduces judgement-based reserving with best estimates and margins to new business along with regulatory guardrails. The introduction of PBR will require insurers and supervisors alike to develop appropriate expertise, experience and supervisory practices with the new method, including retaining additional supervisory in-house actuarial staff.

73. This history illustrates that a variety of life insurer valuation methods have been developed over the years for the valuation of different portions of life insurer policyholder obligations (e.g., XXX, AXXX, PBR, variable annuities subject to VM 21 etc.). While each method has been designed with conservatism in mind (either through the choice of assumptions, calculation technique and/or floors) the methods are inconsistent in their approaches and lack uniformity in the level of conservatism generated. This lack of consistency has encouraged the industry to arbitrage regulatory valuation requirements which are seen to be uneconomic (e.g., growth of captive insurers for certain products). The lack of consistency also makes it difficult for supervisors to develop a consistent comprehensive view of liability strength. It is recommended that all reserves be moved to a consistent PBR basis after a target transition period of five years.

74. The impact of this life insurer liability inconsistency will vary from company to company. The impact for each company will vary depending on the rate of growth of new business, the specific products sold and also the rate of retention of the in-force (e.g., lapsation, reinsurance, sales of blocks of in-force etc.). This may be challenging for supervisors and users of the regulatory returns to understand/compare the emergence of earnings and financial strength between insurers.

75. Another potential source of life insurer balance sheet inconsistency results from the need to provide for the risks arising from asset/liability management (i.e., mismatch risks). A cornerstone of prudent management of a life insurer is that assets are invested to match, to the extent possible, the liability obligations to policyholders. For long term life insurance products, it is typically difficult to purchase assets with sufficient duration to match the underlying liabilities. Conservatism in pricing for reinvestment risk is very important for these products. For annuity products it is very important to closely match the asset/liability cash flows for ongoing profitability. In either case, modern international valuation and capital systems typically provide for this mismatch risk through a combination of provisions in both the liabilities and in required capital (i.e., each one designed from a total balance sheet approach and at an appropriate confidence level). Typically, some form of cash flow testing (asset adequacy testing - AAT) is required. Modern international practice uses AAT directly in both the determination of the liabilities and in the required capital. AAT assigns a value to mismatch risk and ensures that the cash flows from the supporting assets are sufficient to provide for the liability obligations under a variety of future economic scenarios. As a result, an AAT driven valuation of liabilities is "agnostic" about the statement value of the underlying assets. The reserves are driven by a current economic assessment of the liability cash flows and their supporting asset cash flows.

76. The U.S. regulatory requirements related to mismatch risk began with NY Regulation 126 which was applicable to annuity and single premium life products at their 1989 and later year ends. Regulation 126 initially used a limited range of economic scenarios. Opinions required under Section 8 of the 1991 NAIC model Actuarial Opinion and Memorandum Regulation (AOMR) include an asset adequacy analysis, that is, analysis of whether the company's assets supporting the reserves are adequate to mature the company's obligations. The American Academy of Actuaries developed supporting actuarial standards by late 2001. Asset Adequacy Testing (AAT) is a requirement of the Standard Valuation Law for most life insurer product types.

77. Some types of life insurer products will (or do) include a robust determination of mismatch risk that is inherent in the liability determination. These include products subject to PBR stochastic modelling, including all variable annuity business. For these products, their reserves and supporting assets include an economic provision for all policyholder risks with a moderate level of conservatism. This represents a good foundation for developing a consistent and total balance sheet set of RBC requirements. Indeed, the capital requirements for variable annuity contracts are determined directly by comparing the results of the VM 21 stochastic valuation at two different confidence levels.

78. Other life insurer products are subject to simpler forms of AAT that may use more limited testing of future investment scenarios (e.g., pre-PBR insurance contracts). For these products, The AAT may reveal the need for an aggregate top-up provision to be added to the reserves. However, this simpler provision for mismatch risk in the reserves will also rely on the use of prudent long-term valuation rates of interest and provisions for interest rate risk and market risk in the capital requirements to provide overall solvency protection from mismatch risk. At present, these life insurer products are not valued or and capital required, according to a consistent total balance sheet approach.

Table 2. United States: Characteristics of Life Valuation Methods

Liabilities Valued	Characteristics
Pre-PBR business	Net premium reserve method (rules based; locked-in assumptions) Regulation XXX/AXXX products over-reserved; captives formed Subject to aggregate asset/adequacy testing
PBR business	Largest of three calculations is held: <ul style="list-style-type: none"> • Net premium reserve (rules based; locked-in prescribed valuation interest rate assumptions; prescribed mortality and lapse assumptions may be unlocked at some future date) • Deterministic (best estimate plus margins; unlocked; judgement based) • Stochastic Conditional Tail Expectation 70 reserve (form of asset adequacy testing)
Overall	Mix of valuation methods: <ul style="list-style-type: none"> • Some new, some old • Varying degrees of conservatism • Varying degrees of responsiveness to emerging experience

Source: IMF Staff Own Analysis.

79. One of the important SAP principles relates to consistency. The following recommendations will provide overall consistency in the NAIC supervisory framework. It is notable that the current SAP principle relating to “consistency” seems supportive of new approaches where they support regulatory objectives as it states (in part), “precedent or historically accepted practice alone should not be sufficient justification for continuing to follow a particular accounting principle or practice that may not coincide with the objectives of regulators”.

80. Consistency of life insurer liability valuation methods is needed. A variety of methods have been developed over the years for the valuation of different portions of life insurer policyholder obligations (e.g., pre- and post-PBR). While each method has been designed with conservatism in mind (either through the choice of assumptions, calculation technique and/or floors) the methods are inconsistent in their approaches and lack uniformity in the level of conservatism generated. As an example of this issue, there is no consistent methodology for determining a central estimate and appropriate margin over central estimate even within the various valuation methodologies of PBR let alone the mixture of pre and post PBR liability valuation. This lack of consistency has encouraged the industry to arbitrage (with insurance regulator agreement) regulatory valuation requirements which are seen to be uneconomic (e.g., growth of captive insurers for certain products). The lack of consistency also makes it difficult for supervisors to develop a consistent comprehensive view of liability strength. It is recommended that all reserves be moved to a consistent PBR basis, with floors and guardrails removed so that a consistent economic approach can be applied. An appropriate transition period will need to be developed by the Authorities due to the practicalities of building full PBR capacity within the industry and supervisors as well as amending state legislation as necessary. A target transition period of five years is proposed.

81. A total balance sheet approach to insurer solvency assessment needs to be implemented requiring a revised approach to valuation and subsequent recalibration of capital requirements and available capital resources. Insurer statutory valuation requirements for assets and liabilities cannot currently be aligned due to the variety of valuation methods allowed within PBR and the gradual adoption of PBR as the liability valuation method. A coherent total balance sheet assessment of insurer solvency cannot be achieved in the absence of consistent valuation of an insurer’s assets and liabilities. In the absence of such consistency, available capital resources are subject to spurious and volatile changes between periods thus making impossible the determination of RBC requirements to provide a desired level of confidence. At present, inconsistent levels of conservatism in the valuation of life insurer products also make it difficult to develop a complementary (i.e., total balance sheet approach) set of capital requirements. Greater consistency in the valuation of life insurer products will necessitate and enable the re-design and recalibration of the life insurer RBC requirements to ensure that together they provide appropriate solvency protection for policyholders based on a clearly stated desired level of policyholder protection. The NAIC and state insurance regulators should commence work to re-calibrate the RBC to PBR to reflect the underlying economics and a total balance sheet approach to risk and solvency assessment.

82. The RBC does not currently require life insurers to carry capital for longevity risk. The NAIC is undertaking a project to consider how longevity risk is recognized in statutory reserves and/or RBC to ensure longevity risk is adequately reflected. As outlined in the overview of the market structure, annuities and longevity risk transfer transactions are increasing and there is significant use of captive reinsurance for these products. It is envisaged that by the end of 2020, RBC for life insurers will include a charge for longevity risk with the offsetting diversification against mortality risk recognized. The adequacy of reserving is also being considered as part of the project.

83. NAIC and state insurance regulators should significantly expand in-house supervisory actuarial capability to supervise PBR effectively. They should consider the formation of a shared center of expertise in addition to the NAIC resources already available to the Valuation Analysis (E) Working Group (VAWG).

Reinsurance

84. At its June 2019 meeting of the National Association of Insurance Commissioner (NAIC) Plenary, the association approved revisions to the Credit for Reinsurance Model Law (#785) and Credit for Reinsurance Model Regulation (#786) with respect to collateral requirements for alien reinsurers. These changes are intended to make the models consistent with provisions of covered agreements with the European Union and United Kingdom with respect to reinsurance collateral requirements. In addition to intending to conform to the requirements in the covered agreements, these changes will provide reinsurers domiciled in NAIC-qualified jurisdictions other than within the EU (currently, Bermuda, Japan and Switzerland) with the possibility of similar reinsurance collateral reductions. Revisions to the model were considered by the membership and included input from stakeholders, companies and the federal government.

Captives

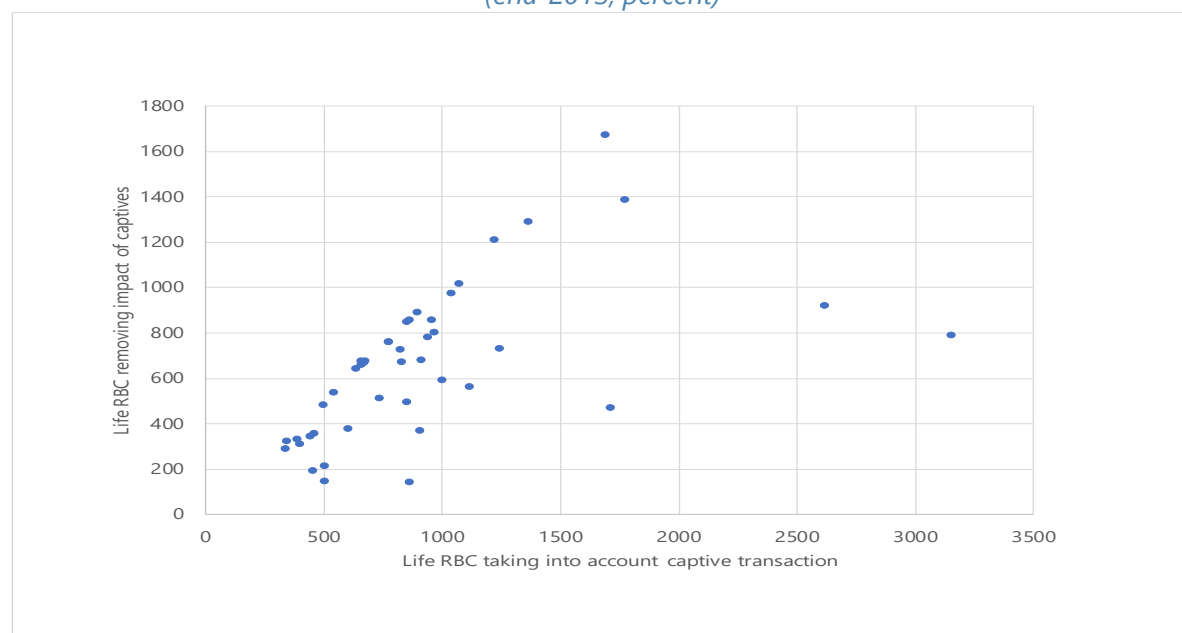
85. In 2013, the NAIC Captive and Special Purpose Vehicle (SPV) Use (E) Subgroup studied the use of captives and SPVs formed by commercial insurers. The Subgroup concluded that commercial insurers cede business to captives for a variety of business purposes. The Subgroup determined that the main use of captives and SPVs by commercial insurers was related to the financing of XXX and AXXX perceived reserve redundancies. The implementation of PBR was expected to reduce the need for commercial insurers to create new captives and SPVs to address perceived reserve redundancies; however, existing captives and SPVs are likely to remain in existence for several years or decades, until the existing blocks of business are run-off. According to the 2013 NAIC Captives and Special Purposes Vehicles White Paper, 27 states indicated that they allow insurance risks to be transferred from a domestic insurer to a captive or SPV in their respective state. While captives are used for a variety of purposes, their role in assuming the risks from XXX and AXXX life insurance business has created the most regulatory interest.

86. In 2012, preparatory to the 2013 NAIC White Paper, an NAIC survey revealed that the majority of large U.S. insurers with XXX and AXXX business formed captives in order to lessen the burden of statutory reserving for these products. Insurers have reported that their statutory

XXX reserves could be as large as four to five times as large as their estimates of their economic value. For this reason, the companies are allowed to hold letters of credit (LOC's) or similar instruments to back the portion of the reserve in excess of the economic value.

87. The NAIC and state insurance regulators should regularly monitor and report publicly on the impact of the uses of captives by direct writing insurers and insurance groups including the combined impact of the captives on the reserve and capital positions of those entities. Based on publicly available NAIC documents the most recent NAIC study of captives dates back to the 2013 *Captives and Special Purpose Vehicles White Paper*. Figure 3 below shows the impact of the cession of XXX/AXXX business on RBC for the direct writer, in this case where the reinsurer is a captive. Given the significant capital relief afforded to insurers by captives and the need to conclude on a required capital measure at the group level, it is important to understand the aggregate impact of captives on group capital levels. Also, of importance is to understand the various uses of captives (i.e., not just for XXX/AXXX business) and the benefits they provide to direct writers and the insurance groups of which they may be part. It is recommended for captives that the valuation requirements (SAP) and capital requirements (RBC) be aligned with direct insurers to remove the arbitrage opportunity particularly in light of the development of PBR.

Figure 3. United States: Life Insurers RBC with Captives and Without Impact of the Captive
(end-2013, percent)



Source: NAIC

88. The NAIC GCC (E) Working Group is field-testing how XXX/AXXX business, and other business ceded to captives should be treated under the GCC. The field-test contemplates the GCC providing data on the estimated reserve overstatement and asset overstatement as discussed in the previously mentioned paragraphs. The field-test also contemplates the GCC providing data on other

captives that would require disclosure of the impact of essentially “looking through” the transaction all together (i.e., unwind the captive transaction). It’s not clear if there is an update of the above figure which shows the comparison of a select group of 44 life insurance companies’ Authorized Control Level (ACL) RBC ratios with and without the impact of a captive transaction. Note only three of the 44 would breach the Company Action Level (CAL) RBC ratio if the captive transaction was unwound, although focusing on the three may not accurately portray any capital planning that may have occurred within the group when the business was moved to the affiliated captive.

Risk-based Capital

89. The ability to require a minimum level of capital and surplus is a NAIC accreditation requirement for state insurance departments. The department should have the authority to require additional capital and surplus based upon the type, volume and nature of insurance business transacted. The Risk Based Capital (RBC) for Insurers Model Act and the RBC for Health Organizations Model Act or provisions substantially similar shall be included in state laws or regulations and provides the various levels of intervention, with the first level of intervention at 300 percent of ACL.

90. Table 3 illustrates the aggregated U.S. life insurer RBC data for the most recent years. The data shows the stability and strength of the U.S. life insurer industry in aggregate. Note that the Company Action Level (CAL) ratios are half of the ACL RBC ratios.

Table 3. United States: Aggregated U.S. Life RBC Data					
	2018	2017	2016	2015	2014
Number of Companies	703	704	718	725	727
Total Adjusted Capital - US\$ Billion	540.4	526.6	508.7	495.4	486.6
Authorized Control Level RBC - US\$ Billions	64.3	56.4	53.4	51.3	50.0
ACL RBC Ratio (%)	840	934	953	966	973
Source: NAIC					

State Regulation – Property and Casualty Insurance

91. Due to the short-term nature of many P&C risks, the claim liabilities also tend to be of relatively short duration and are frequently estimable through examination of loss development from previous periods. There were no significant property and casualty reserving or balance sheet issues identified during the review (i.e., in contrast to life insurance). Table 4 using NAIC data shows reasonable capital stability for the property and casualty industry in recent years.

Table 4. United States: Aggregated U.S. Property & Casualty RBC Data

	2018	2017	2016	2015	2014
Number of Companies	2465	2486	2492	2494	2520
Total Adjusted Capital - US\$ Billion	931.2	935.9	876.9	833.5	830.1
Authorized Control Level RBC US\$ Billions	151.1	149.9	138.7	133.8	133.9
ACL RBC Ratio (%)	616	624	632	623	620

Source: NAIC

State Regulation – Health Insurance and Long-term Care

Risk-based Capital

92. Table 5, using NAIC data, shows reasonable capital stability for the health industry in recent years.

Table 5. United States: Aggregated U.S. Health Insurance RBC Data

	2018	2017	2016	2015
Number of Companies	965	937	925	897
Total Adjusted Capital - US\$ Billion	156.7	142.1	127.8	118.3
Authorized Control Level RBC US\$ Billions	25.0	23.2	22.6	20.8
ACL RBC Ratio (%)	627	613	565	569

Source: NAIC

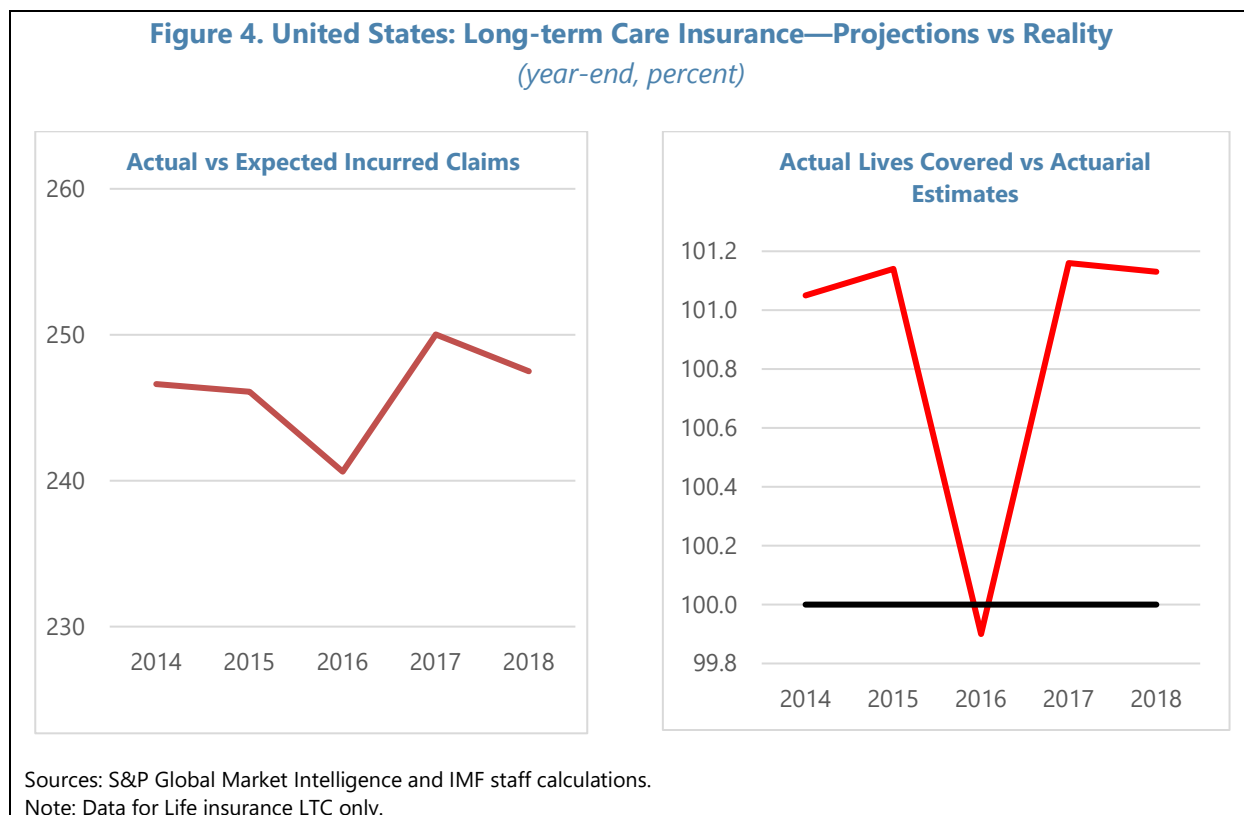
Balance Sheet Valuation

93. **VM-25 Health Insurance Reserve Minimum Reserve Requirements outlines the reserving standards that apply to all individual and group health [accident and sickness] insurance coverages including single premium credit disability insurance.** The VM lays out the minimum reserving standards for some types of reserve liabilities (e.g., disabled life claim liabilities) and reserving principles to be used for other types of premium and claim liabilities for health insurance.

94. **In 1991, ASOP No. 18, LTC Insurance, was adopted by the Actuarial Standards Board.** In setting statutory reserves, the actuary is required to apply VM-25 Health Insurance Reserves Minimum Reserve Requirements, and the *LTC Insurance Model Regulation for riders and acceleration of benefits on life and annuity benefits* and the regulations of any states that govern the specific plan for which the reserves are to be calculated.

95. **Reserving for LTCI policies has been fraught with major issues.** Both ASOP 18 and the LTC Model Regulation for riders and acceleration of benefits provide general direction and

principles to be used when reserving for LTC insurance. ASOP 18 indicates the need for conservatism and the need to review experience as it emerges. Emerging experience has tended to be unfavorable for all major assumptions involved in this product (e.g., low interest rates, low lapse experience, improved longevity, senior’s access to later life living options etc.). Figure 4 shows some of that adverse experience compared to actuarial estimates for life insurance companies offering LTC insurance. Actual incurred claims are at or near 250 percent of actuarial estimates of expected incurred claims. In addition, more policyholders are keeping their LTC policies longer than expected, see actual lives insured versus actuarial estimates of lives insurers.



96. As the product design for LTC insurance has generally been guaranteed renewable and insured lives are just now reaching their peak years for utilizing these benefits, claim costs have been skyrocketing for LTC insurance carriers. Many have stopped writing new business but their responsibility to pay claims for existing policyholders remains. This requires even those insurers with closed blocks to continually press for rate increases and to strengthen their claim reserves. Asset adequacy testing requires the actuary to annually attest to the adequacy of current assets, future premiums and investment income to fund future claims and administrative expenses. Some states use commissioner discretion to restrict the actuary from assuming future premium increases in this adequacy testing while other states allow consideration of future increases as long as it can be demonstrated that such future increase are justifiable and appropriate given each state’s history of granting rate increases (i.e., generally much lower than requested by insurers). The industry

continues experiencing high level of LTC insurance losses, even with the rate increase approvals already granted.

97. LTC insurance is an important product for seniors but due to the difficulty in estimating in advance long-term rates of persistency, longevity, rate of claim, cost of claim, interest etc. the projected future costs have risen dramatically from initial estimates. The impact is being felt through insurer underwriting losses, multiple requests for rate increases, large reserve increases, insurer withdrawals from new business, hits to the policyholders' ability to pay, etc. The number of LTC insurance writers has greatly diminished with some of the remaining writers being mutual insurers with limited abilities to raise capital and without pressure from shareholders. The size of rate increases granted varies by state leading to concerns of cross-subsidization among states. In some instances, this testing has revealed the need to strengthen reserves. Fortunately, weakened solvency is an issue at present for only a limited number of insurers as most of the larger writers who have stopped new sales are well diversified and well capitalized companies. The U.S. Treasury has convened a federal interagency task force on LTC to develop policies at the Federal level to complement state level regulation. The task force aims to issue its report during the first quarter of 2020. The NAIC has formed an executive level committee to consider LTC issues including consistent rate approvals across states.

98. While not rising to the level of systemic concern, a reform of LTC insurance is needed without further delays. Based on the above findings for LTC insurance, it is recommended that:

- The NAIC and state insurance regulators develop a balanced approach to rate approvals that recognizes the trade-off between their dual responsibilities to treat customers fairly and protect policyholders against insurer insolvency.
- The NAIC and state insurance regulators should develop a more consistent response to LTC insurance rate approvals to avoid cross-subsidization between states.
- State and Federal governments work together to find an alternative solution to funding aged care in the community including potentially lower-priced, more attractive insurance products.

C. Product Filing and Rate Review

99. States require the filing and review of rate, rule and form filings for all lines of insurance. The NAIC has developed the Product Filing Review Handbook which is intended to help insurance regulators provide speed to market for insurers while maintaining a high level of consumer protection by enforcement of state laws and regulations related to the sale of insurance products. The Handbook provides basic information about the filing and review of rate, rule and form filings for all lines of insurance. It also explains basic ratemaking processes for those products that are subject to various forms of rate regulation. The NAIC System for Electronic Rate and Form Filing (SERFF) allows insurers, advisory organizations, and third-party filers to submit insurance product filings (typically rate, rule, and form filings) electronically to state insurance regulators.

SERFF, as is explained in the Handbook, is a true multi-state electronic filing system (licensed in all jurisdictions).

100. For property and casualty insurance, each state legislature has enacted state insurance rating laws, some of which are based on NAIC model rating laws and guidelines Other laws are still from the All-Industry Bills of 1947, prior to publication of the NAIC model laws. Each state regulator adopts the regulations needed to implement the state insurance rating laws. Typically, these requirements apply to personal lines products such as automobile and home insurance. The assessors found no issues relating to these processes for property and casualty.

101. For health insurance, each state legislature has similarly enacted state insurance rating laws, some of which are based on NAIC model rating laws and guidelines. The insurance commissioner adopts regulations needed to implement insurance rating laws. In addition, the NAIC has published relevant guidance manuals for specific lines of business. The FSAP found no issues relating to these processes for health insurance apart from those related to LTC.

102. Many states do not regulate life insurance premium rates and annuity purchase rates, except for credit life insurance. A number of states do require the filing of life insurance rates and for any changes to the rates. The rationale for not regulating life insurance and annuity rates is that competition and market forces would adequately regulate rates. The review of a life insurance or annuity filing would generally be a review of various contract provisions and of compliance with the corresponding nonforfeiture law. A life insurance filing might need to include premium rates, in order to confirm compliance with the *Standard Nonforfeiture Law for Life Insurance* (#808). Some states also require compliance with the provisions in the *Valuation of Life Insurance Policies Model Regulation* (#830).

103. There are three types of life insurance policies and annuity contracts based on how investment earnings on the supporting assets are credited to the contract:

- variable life and annuity contracts;
- equity indexed universal life insurance and equity-indexed annuity products; and
- all other insurance and annuity products.

All three types are regulated by the state insurance departments but in addition, variable life and annuity contracts are regulated by the SEC.

D. Enterprise Risk Management and Group and Large Insurer ORSA

104. There has been a significant progress since the 2015 FSAP regarding the enterprise risk reports. The requirements within the Insurance Holding Company System Model Act (#440) and supporting Insurance Holding Company System Model Regulation (#450) related to the annual filing of an Enterprise Risk Report (Form F) became effective for NAIC accreditation purposes on

January 1, 2016. Therefore, NAIC accredited lead states are now receiving and reviewing Form F filings on an annual basis. The purpose of the Form F filing is to report on material risks within the insurance holding company system that could pose enterprise risk to the insurer. Given the importance of assessing enterprise risk for all insurers that are part of insurance holding company systems, Model #440 contains no blanket exemptions or waivers for company size or structure. The deadline for filing Form F varies by state from March 1 to September 15. Insurance holding company systems are expected to provide a Form F filing to the appropriate regulator on an annual basis, unless granted an individual exemption from the reporting provisions in accordance with Section 4J of Model #440. Situations where it might be appropriate to request an exemption could include the following:

- An ORSA Summary Report has been filed with the commissioner at the ultimate controlling person (UCP) level and addresses all enterprise risk exposures that would be disclosed in a Form F filing.
- Based on the very limited size, structure and nature of an insurance holding company system, the Form F filing would not provide additional valuable information to the commissioner.

105. The NAIC Risk Management and ORSA Model Act (#505) had a proposed effective date of no earlier than January 1, 2015. Under Model (#505), large and medium size U.S. insurers and insurance groups are required to regularly perform an ORSA and file a confidential ORSA Summary Report of the assessment with the lead state regulator annually, and with the regulator of any insurance company within the group upon request. Model #505 provides the requirements for completing an annual ORSA and provides guidance and instructions for filing and ORSA Summary Report.

106. The four states visited during the mission provided their experiences to date with ORSA. These findings include:

- Filing dates vary by insurer and state. One state requires ORSA filings as late as December 1 while another state received it as early as March 1. Clearly, risk-based supervision is better informed through earlier filings of ORSA but equally important is that ORSA be an integral part of risk management of the insurer and meetings of the Board to discuss such matters. Receipt of ORSA's late in the year seems out of step with timely risk management practice.
- Some ORSA's are hundreds of pages thick and may require consultants to review them. Based on these observations, it is incumbent on the supervisor to understand from the company whether this style of delivery is helping the process of making sound risk management decisions.
- Some State regulators are benchmarking their ORSA reports. This is a most valuable exercise as it helps the supervisor in assessing good, better and worse practices among supervised insurers. Such benchmarking can help to inform the supervisory about insurer specific risks or even

systemic risks shared across insurers. It would be valuable if this practice could be spread more widely across supervisors.

- The Risk Management and ORSA Model Act (NAIC #505) allows for the sharing of ORSA Summary Reports and documents, materials or other ORSA-related information with other impacted regulators, the NAIC and third-party consultants. However, some states may be hesitant to share ORSA reports with other states due to differences in the adoption of confidentiality language associated with the reports. In these cases, other impacted states would need to request a copy of the ORSA reports directly from the insurer, which is allowed for under the model act. In addition, states should work to address differences in confidentiality language to ensure that ORSA-related materials can be freely shared across impacted states.
- The supervisor of a large insurer reported that the company's ORSA included a projection forward of only one year. While the insurer's ORSA was very comprehensive, the supervisor expects that the insurer will extend its ORSA projections for multiple years in the future.

107. Further refinements to the ORSA regime are warranted. The FSAP recommends that:

- Filing deadlines for ORSA be aligned across states so that companies are allowed to complete year-end yet the supervisory (and presumably Board) need for timely delivery is also met (e.g., July 1 deadline). This recommendation is made with the understanding that having the filing date shortly after a company's annual risk management and planning processes in the 3rd and 4th quarter (a common practice) was seen as ideal.
- That benchmarking of ORSA's by individual states and by the NAIC is be continued and extended across all states be started in order to learn of best and weak practices in industry, identify risk trends and help inform NAIC and state supervisors of emerging macro-prudential issues.

E. Group-Wide Powers Over Holding Companies

108. The NAIC model laws set out a framework for group-wide supervision. The three principle sources of power over holding companies is set out in the Insurance Holding Company System Regulatory Act (Model #440), the Insurance Holding Company System Model Regulation with Reporting Forms and Instructions (Model #450) and the Model Law on Examinations (Model #390). Model #440 defines the lead state's scope of authority over the records of the holding company and all of its subsidiaries and affiliates and by requiring information from the ultimate controlling entity as well the power to examine any information from such entities. Group-wide supervision extends to all insurers, all operating and non-operating holding companies, regulated entities (e.g., banks and securities firms) non-regulated entities and special purpose vehicles within a 'holding company system'. Model #440 was updated in 2010 and 2014. As at November 2019, all states had adopted the 2010 changes, but 44 states had adopted the 2014 changes with one more state where action is currently under consideration.

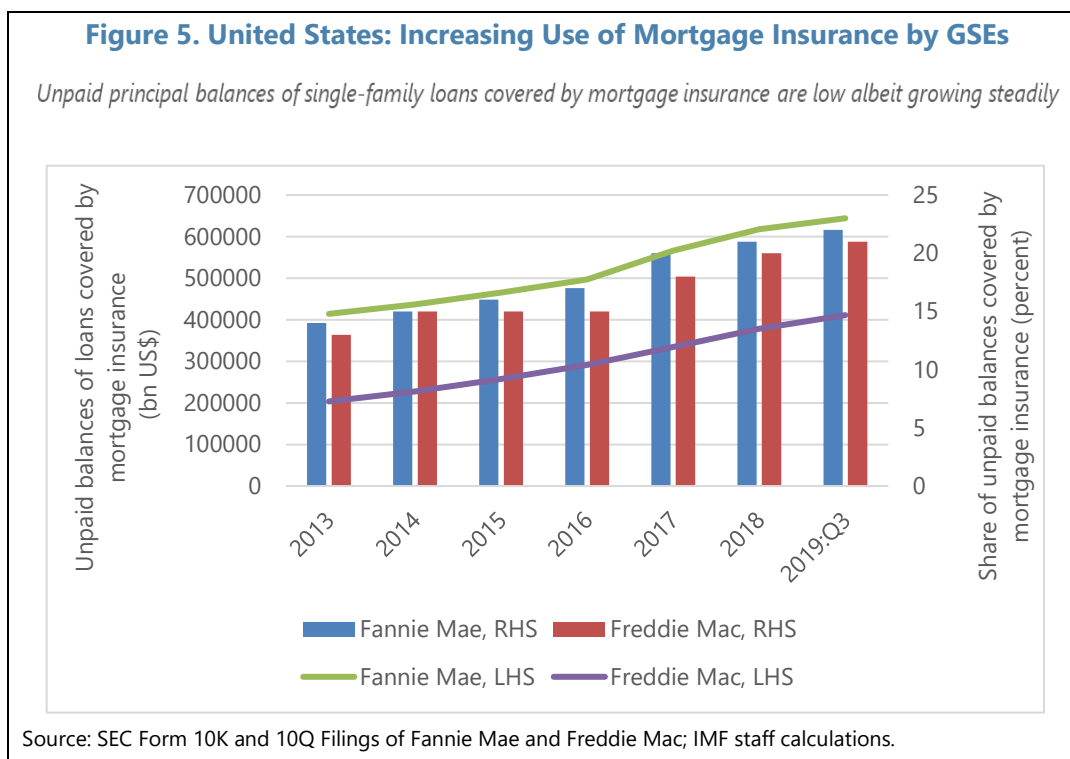
109. The IAIS adopted revised ICPs incorporating ComFrame and the policy measures of the holistic framework for systemic risk in November 2019. While it is understandable that the U.S. authorities awaited the finalization of ComFrame and the holistic framework before assessing if there were any gaps compared to existing requirements and new initiatives underway, the following observations can be offered in relation to these new standards. State insurance regulators have organized supervisory colleges for insurance groups meeting the current definition of an IAIG. Some states have also organized Crisis Management Groups (CMGs) for IAIGs, however the membership of those CMGs may need further consideration, e.g., ensuring relevant resolution authorities are present at all CMGs. In 2018 and 2019, the NAIC Receivership & Insolvency Task Force undertook an analysis of resolution and recovery concerns important to financial stability as part of the Macroprudential Initiative (MPI) which may go some way toward addressing the new material in ICP 12.

F. Oversight of Mortgage Guaranty Insurance

110. Mortgage Guaranty Insurance provided which is by Private Mortgage Insurers (PMIs) provides credit enhancement for mortgages with high loan-to-value (LTV) ratios. The GSEs are required by charters to obtain credit enhancement for mortgages with LTV ratios above 80 percent. Providing this coverage for GSE-guaranteed mortgages has traditionally accounted for most of the PMI industry's business. Mortgage Guaranty Insurance provides mortgage default protection to lenders on individual loans and covers unpaid principal, delinquent interest and expenses associated with the default and subsequent foreclosure or property sale. Mortgage Guaranty Insurance is generally written on first lien mortgage loans secured by owner occupied single-family homes. However, investor or non-owner-occupied single-family homes, vacation or second homes can also be covered.

111. The PMI business model is cyclical—relatively long periods of profitability are followed by catastrophic loss when there is a recession. There are currently six PMIs accepting new business with the total loans insured of approximately US\$1.2 trillion with risk in force of just over US\$300 billion as coverage provided is typically for the first 25 percent of the loan value. GSEs have increased their use of PMIs in recent years (see Figure 5 below). The increasing business of mortgage insurers reflects the increase in over 80 percent LTV loans in the GSE portfolios which is driven by decreasing refinance loans (which are typically at lower than 80 percent LTV) and an increasing share of purchase loans, particularly more first home buyers in 2017 and 2018. The total market for insured loans comprises PMIs, Federal Housing Administration (FHA) and Department of Veterans Affairs (VA) insured loans, with the importance of PMI growing in the market from 13 percent in 2010 to 43 percent in 2018.²⁸

²⁸ Source: FHFA.



112. The GSEs impose Private Mortgage Insurer Eligibility Requirements (PMIERS) on PMIs and these include operational and underwriting standards, and detailed risk-based financial and capital metrics. PMIERS are a counterparty risk management tool not a government regulation. The PMIERS are the dominant requirements on PMIs given that state-based regulation is still under development after the GFC. PMIERS comprise operational and financial requirements. Under PMIERS financial adequacy is measured comparing available assets to minimum required assets. Minimum required assets is defined as the greater of US\$400 million or the total risk-based required assets amount.²⁹ One impact related to the introduction of PMIERS is that in managing their financial requirements, PMIs are turning more toward alternative risk transfer markets, transferring their tail risk into the capital markets.

113. State-based regulation of PMIs³⁰ is needs further development. In the state-based financial requirements applied to PMIs the most historically important factors of mortgage loan risk are not included. The current state financial requirements apply a simple 25 to 1 limit of risk-in-force (total loan value insured) to surplus and this does not differentiate by loan characteristics. PMIs are excluded from the RBC. The six PMIs are supervised by three lead state

²⁹ To determine required assets there are tables of factors applied to the risk in force of the loans held based on loan to value ratio at origination, credit score at origination, loan vintage classification, whether the loan is part of the Home Affordable Refinance Program (HARP) and delinquency or claim status of the loan.

³⁰ Under state insurance law, PMIs are referred to as Mortgage Guaranty Insurers.

supervisors, North Carolina, Pennsylvania, and Wisconsin and are licensed to sell mortgage guaranty insurance by other states.³¹ State insurance regulators are overhauling the Mortgage Guaranty Insurance Model Act (#630) including a new capital model to apply to mortgage insurers which is due to be implemented at the end of 2020. The proposed capital model is risk sensitive taking into account loan characteristics and also includes a counter-cyclical factor based on the ratio of income to property price. The proposed state-based capital model provides capital requirements that rise as home prices increase relative to per capita incomes. Conversely, as home prices decline and become more affordable relative to per capita incomes, capital requirements decline. The 25 to 1 risk-to-capital ratio from the previous 1976 version of the Mortgage Guaranty Insurance Model Act will be retained as a floor below which the capital requirement could not go. The state-based capital model is likely to be calibrated to a lower level than the PMIERS financial requirements assuming the countercyclical factor is not significant. A key aspect of the proposed new requirements is that regulatory action levels based on capital have not yet been decided because the MI capital model does not fit with RBC and its defined action levels. The NAIC and state insurance regulators need to quickly finalize and legally implement post-crisis reforms to requirements for mortgage guaranty insurers. Another important aspect of the state requirements is a contingency reserve that requires 50 percent of premium be held in the reserve for 10 years unless loss ratios increase above 35 percent, creating a countercyclical system that builds capital within the reserve prior to a stress period and does not make full profits available for dividend payments.

SUPERVISION

A. Federal Reserve Consolidated Supervision

Approach

114. The Federal Reserve currently supervises eight SLHCs predominantly engaged in insurance business. The Federal Reserve supervisory role is over the consolidated supervision of the group. It uses the work of the entity level supervisors (i.e., state insurance regulator) in carrying out its supervisory role. The Federal Reserve is required to supervise all nonbank financial institutions—which potentially includes insurance companies—designated as systemically important by the FSOC. Currently there are no institutions so designated and therefore the Federal Reserve’s supervision process in this area was not assessed.

115. Effective consolidated supervision by the Federal Reserve requires cooperation with state insurance regulators. The Federal Reserve does not regulate the insurance activities of its supervised entities and the primary supervisors of insurance activities are the individual states in which the insurance companies operate. The main objective of the Federal Reserve’s supervisory process for insurance SLHCs is to evaluate the overall safety and soundness of the banking and nonbanking organizations within a holding company system which includes evaluation of a broad

³¹ Note that despite being a lead state supervisor, Pennsylvania has not implemented the Mortgage Guaranty Insurance Model Act (#630).

range of risks. This evaluation includes an assessment of the organization's risk management systems, financial condition, and compliance with applicable banking laws and regulations. In carrying out its mandate, the Federal Reserve has authority pursuant to the HOLA to conduct both offsite monitoring and onsite inspections of SLHCs including their nonregulated subsidiaries. The Federal Reserve relies as much as possible on information and assessments provided by state insurance regulators. It also relies on the state supervisors to monitor and enforce corrective measures taken regarding insurance activities.

116. The Federal Reserve monitors governance and controls of supervised firms through the FRB's rating system for insurance SLHCs. In its role as consolidated supervisor at the holding company level, the Federal Reserve utilizes the RFI C/D rating system. This system includes a risk management component that calls for an assessment of governance and controls of an insurance SLHC. The Federal Reserve expectations include appropriate risk measurement and risk monitoring as well as a forward-looking perspective by the firm's board and senior management. The Federal Reserve does not presently administer or require stress testing in its supervision of insurance SLHCs. The financial component of the RFI C/D rating system requires an evaluation of the firm's liquidity position, encompassing the firm's ability to attract and maintain the sources of funds necessary to support its operations and meet its obligations. Liquidity risk management processes and funding programs should take into full account the institution's lending, investment, and other activities and should ensure that adequate liquidity is maintained at the parent holding company and each of its subsidiaries. These liquidity risk management processes and funding programs should incorporate real and potential legal and regulatory constraints on the transfer of funds among subsidiaries and between subsidiaries and the parent holding company.

Group Capital Requirement

117. As the reporting and capital frameworks for the entities within the groups supervised by the Federal Reserve are different, the Federal Reserve has developed a methodology for combining or aggregating the capital reported by each group. This method of aggregating required capital and available capital is called the Building Block Approach (BBA), and it aims to provide the Federal Reserve with an overall assessment of the strength of the group. The Federal Reserve does coordinate with the NAIC on the development of the GCC. It is notable that the Federal Reserve has published its NPR on the BBA ahead of the NAIC's further development of the GCC.

B. State Supervision

Approach

118. The NAIC and its member state insurance regulators have developed a risk-focused surveillance process. Compared to the findings of the 2015 DAR, there appears to be increased attention by state insurance regulators to risk assessment and risk management processes within insurers. The Financial Analysis Handbook (2018 Annual/2019 Quarterly) and the Financial Condition Examiners Handbook 2019 contain the essentials of the risk-focused surveillance process. These

handbooks are updated on an annual basis. The Financial Analyst is a key person who is meant to be the focal point of knowledge on a company or insurance group. The Financial Analyst's role is to provide offsite monitoring based on filings provided by the insurers and groups. The Financial Analyst and their supervisor determine the priority rating of an insurer which determines the level of supervisory intensity applied to that insurer.

119. A risk-rating or prioritization framework is used to determine the priority of analysis and examination work for each domestic insurer in a state insurance regulator's portfolio.

Priority 1 companies are considered to be troubled companies which are subject to intense supervisory scrutiny as outlined in the Troubled Insurance Company Handbook. This provides for significantly intensified ongoing monitoring of annual and quarterly filings. A troubled insurance company is a company that either is in or is moving toward a financial position that subjects its policyholders, claimants and other creditors to greater-than-normal financial risk, including the possibility the company may not maintain compliance with the applicable statutory capital and/or surplus requirements. Analysts of Priority 1 companies generally need to have completed their analysis of annual filings by the end of April each year. Priority 1 companies are likely to be subject to the Financial Analysis Working Group of the NAIC (FAWG) peer review process as detailed below. Priority 2 companies are not yet considered troubled companies but are subject to unfavorable trends and metrics that if not addressed may lead to troubled company status. These companies are subject to an elevated level of ongoing regulatory monitoring and are required to have analysis performed ahead of Priority 3 and 4 companies. Priority companies have some need for additional monitoring beyond the basic level required for Priority 4 companies. This common prioritization framework assists state insurance regulators to communicate with each other. All state insurance regulators visited used the prioritization framework for their internal purposes and for communicating with other regulators.

120. This prioritization framework only formally recognizes the net risk of the insurer and the financial position of the insurer without taking into account the insurer's market significance or impact of failure in a structured way. NAIC guidance encourages consideration market significance or impact of failure in prioritization. The Financial Analysis Handbook definition for a Priority 2 insurer states that "High priority insurers may also include those subject to heightened monitoring for reasons other than financial solvency risks, as determined by the department" (Page 23 of the 2019 edition). In addition, the Handbook lists the following as specific prioritization factors to be considered: "impact on the public of an insurer's insolvency," "policyholder and jurisdictions affected," and "structure and complexity of the insurer or insurance group" (page 24 of the 2019 edition). It would be useful for the risk assessment process to be required to assess the factors set out in guidance in a structured way. One way to achieve this would be to apply a matrix approach to arrive at the final prioritization considering risk of failure and impact equally.

121. The FAWG was formed to provide peer review, advice and coordinate actions with respect to nationally significant insurers and groups that exhibit characteristics of trending toward being financially troubled. FAWG is supported by the NAIC Financial Analysis and

Examination Unit of the NAIC Financial Regulatory Services Division. This NAIC unit provides an independent process for selecting and analyzing potentially troubled nationally significant insurers. There are several financial triggers for selection including various ratios benchmarked against usual values and industry averages, material declines in surplus or RBC, low RBC ratios (including Trend test results) and other negative trends. Other than these financial triggers, the NAIC unit may identify insurers for FAWG attention for a variety of reasons including due to requests from regulators; due to publicized ratings actions; and other market news. The group selection criteria is similar but with a group focus on issues such as multiple insurers within the group in financial trouble, review of GAAP financial results and SEC filings. FAWG has an annual meeting and holds conference calls eight times per year. FAWG communications with state regulators of the domicile of an insurer or the lead state regulator of a group are in the form of a letter to which that state regulator is expected to respond and FAWG will discuss the response. FAWG also maintains the Troubled Insurance Company Handbook and the Solvency Monitoring Risk Alert that assist state insurance regulators in identifying emerging issues for consideration.

122. Risk assessment is carried out in the context of nine ‘branded risks’: credit risk, legal risk, liquidity risk, market risk, operational risk, pricing and underwriting risk, reputation risk, reserving risk and strategic risk. The assessment of these risks results in a heat map matrix where risks are assigned to minimal concern, moderate concern or significant concern rating with a trend in the risk also noted as decreasing, static or increasing. The observation during the mission was that this assessment requires judgement by the analyst and the supervisor and that some of these assessments of risk were often quite descriptive and it was difficult to understand how the analysts arrived at the rating of low, medium or high risk and even to understand the trend analysis. There were also excellent examples of analysis where it was clear that there was a depth of critical thinking about the inherent risk and the mitigating controls and procedures.

123. The Financial Analyst’s role follows an annual cycle. This annual cycle involves analysis of the Annual Financial Statement, Quarterly Financial Statements, Actuarial filings, Management’s Discussion and Analysis filing, the Audited Financial Report and filings related to the group holding company (see group supervision for more detail). These filings are extremely detailed and require prioritization in terms of the depth of analysis of the financial data captured. The results of the Financial Analyst’s analysis is captured in a document called the Insurer Profile Summary (for individual legal entities). There is also a Group Profile Summary prepared in relation to group-wide supervision (see group-wide supervision for more detail).

124. The annual cycle of financial analysis starts with the analysis of the annual Financial Statements which are filed by March 1 of each year for the 12 months ended on December 31 in the prior year. The quarterly filings for the first, second and third quarters are received on May 15, August 15 and November 15 respectively. Once these filings are loaded into the NAIC database, Financial Analysis Solvency Tools (FAST) provide automated analysis. There is a scoring system based on multiple ratios (18 to 22 annual ratios and 13 to 18 quarterly ratios depending on the type of company). FAST provides a points score which allows an analyst to quickly screen a company’s latest filing to determine if greater focus is needed than indicated by the last priority rating. There

are also Insurance Regulatory Information System (NAIC) ratios calculated based on annual financial statements. These are again a way of identifying exceptions quickly for further analysis. The FAST also provides analytical information to help target the analysis in addition to serving as a prioritization tool. A number of other systems available to financial analysts provide information to further identify outliers and target analysis, as well as other information available to financial examiners, information about regulatory actions taken against insurers, a consumer complaints database and databases to track market conduct supervisory actions.

125. Other filings include Management Discussion & Analysis provided by April 1, Audited Financial Statement Report provided by June 1, and ORSA filings (see separate section). These filings along with external sources of information such as from other regulators (e.g., SEC filings) credit rating agencies, equity analysts and news sources provide a rich source of qualitative information to add to the extensive statutory financial filings.

126. Onsite financial examinations are conducted at least every five years. These are extensive in-depth examinations conducted in seven phases. The first phase is to understand the company and identify key functional activities to be reviewed. This first phase may not be needed for every examination, although understanding key activities, corporate governance and risk management, which are part of this phase, would be expected to be used to appropriately plan the scope of examination activities. This is knowledge that should be maintained and updated on a continuous basis by the Financial Analyst and updated from findings of examinations. Phase 2 involves the identification and assessment of inherent risk in activities including those identified by the financial analysts in terms of the branded risk categories. Phase 3 is identification and evaluation of risk mitigation strategies and controls leading to Phase 4 to determine residual risk with the focus of Phase 5 on detailed examination procedures. All the phases leading up to Phase 5 appear to be about working out what procedures are needed to adequately understand and test the material risks of the company. The examination is then finalized with the update of the priority rating and supervisory plan (Phase 6) and drafting of the examination report and management letter as well as the Summary Review Memorandum to share with the Financial Analyst.

127. Many state insurance regulators utilize external contractual expertise to complete examination work and in rare cases offsite analysis work. There are some benefits to this system in terms of providing flexible resourcing to state insurance regulators and access to expertise that might not normally be held by insurance supervisors (e.g., cyber risk experts). The corollary of these benefits is that state insurance regulators, to the extent that they do not use staff for examinations, do not retain the experience of onsite examination reviews in-house. However, this is somewhat mitigated by Examination Handbook requirements that a state employee oversee the work of the consultant including signing off on key deliverables that summarize the key risks and issues identified during the examination.

128. There is a continuum of the use of external, contracted experts from almost complete reliance for examination and some analysis work to very little reliance except for specialist expertise outside the usual skill sets of insurance supervisors. The CID places little reliance on external experts and only uses experts where specialist skills are required. In contrast, the MDI

extensively uses experts with oversight by MDI staff for Financial Examinations and Market Conduct Examinations as well as to provide staff training and conduct some analysis work. The NYDFS uses external experts for Financial Examinations as needed with oversight by NYDFS staff. NYDFS generally uses NYDFS staff to conduct Market Conduct Examinations.

129. This varied use of external expertise might be related to the ability of the particular state insurance regulator to compete in the market for relevant expertise. Each state makes its own decision on the appropriate mix of employees/external expertise based upon numerous factors. In the case of CID, it appears able to retain necessary skill sets on staff including actuarial expertise, accounting expertise, legal expertise to conduct most aspects of its mandate in-house. In the case of NYDFS, it appears able to retain necessary skills covering market conduct issues, actuarial issues, accounting issues but with respect to Financial Examinations it bolsters its in-house expertise with external experts. The MDI has no valuation actuaries on staff and extensively uses external experts to staff financial examinations and when there are staff shortages, offsite financial analysis. Experts are also relied upon for in-house training.

130. It appears that state insurance regulators are significantly disadvantaged in the market by civil service pay scales. Insurance and financial services experts are often able to earn significantly greater compensation through the industry and consulting firms. The use of external expertise, which comes at much greater cost than on payroll staff, demonstrates that experts are willing to work for regulators but for reasonable compensation. The use of external experts is not entirely negative given the flexibility of resourcing this allows. The issue is that external experts are exposed to discussions with senior management of insurance companies and gain intimate knowledge of the governance and risk management processes of insurance companies. This is highly valuable experience that would be better kept in-house by state insurance regulators, where possible.

131. Many State regulators are organized in such a way as to keep the offsite financial analysis and examination work separate. This is understandable given the need to continue to hit deadlines with offsite analysis work and given that, currently, onsite examination work takes a long period of time from several months to well in excess of one year to complete. It would be highly valuable for financial analysts to have more exposure to the examinations work. It is acknowledged that financial analysts participate in interviews of senior executives via teleconference. While a number of states require the senior management of their companies to come into the office annually, other states should recognize that there is no substitute for meeting these senior executives, getting to know them and observing non-verbal communication in meetings. Financial analysts would benefit from seeing processes that result in the financial data provided to them on a quarterly and annual basis. It is recommended that more state regulators consider a model where the financial analysis and examinations staffing are combined so that financial analysts' expertise and ongoing knowledge is enhanced through the understanding that meeting an insurance company's executives and seeing its policies and procedures in practice can bring.

132. State insurance regulators should reduce the separation between financial analysis and financial examination functions to effectively focus on understanding risk culture, governance and the quality of risk management. State supervisors should work toward more frequent, narrower scope examinations such that comprehensive scope coverage occurs within a five-year period. As an example, some states are undertaking a targeted or interim exam based on new risks found during the comprehensive exam. State insurance regulators should create teams of supervisors dedicated to financial analysis and financial examination for large insurance groups including IAIGs to maintain and build knowledge based on both financial analysis and financial examinations.

133. More engagement of state insurance regulators with senior management, particularly more engagement with C-Suite management on a regular basis outside the context of the full scope financial examination would be beneficial. Many state regulators hold annual meetings with senior management of their domestic insurers, which is a good practice and should be encouraged. In addition, much more routine interaction with senior management of large IAIGs was observed. This is in line with the need to focus supervisory processes on understanding risk culture, governance, the quality of management and assessment of risk of failure of the group/insurer.

Preventative and Corrective Measures

134. Preventative and corrective measures can take a number of forms and the ladder of intervention set out in the various levels of RBC sets out clear preventative and corrective measures to be taken in relation to financial solvency concerns. The ACL is the number determined under the RBC formula in accordance with RBC instructions. This is the level where if the total adjusted capital of the insurer is at or below this level, a state insurance regulator can place an insurer under regulatory control. Below this is the Mandatory Control Level RBC (MCL RBC) which is the level of total adjusted capital at which the state insurance regulator must place the insurer under regulatory control, and this is at 70 percent of the ACL RBC. There are three levels of RBC at which a range of actions can occur prior to an insurer reaching the ACL or MCL RBC levels where the ultimate action can occur. At the Regulatory Action Level RBC, which is at 150 percent of ACL RBC, and if total adjusted capital falls below this level then the state insurance regulator can require an RBC plan and perform necessary examinations followed by orders specifying corrective actions. At the Company Action Level RBC, which is at 200 percent of ACL RBC, the insurer must prepare an RBC Plan containing corrective actions. Such a plan can also be required if the insurer has total adjusted capital at less than 300 percent of ACL RBC and is exhibiting a negative trend.

135. Under the Hazardous Financial Condition Model Regulation (Model #385), state insurance regulators have broad authority to seek corrective actions to a broad range of shortcomings within insurers. Triggers include adverse findings in examinations, audit reports and actuarial opinions; adverse findings with regard to reserving; adverse findings regarding the insurer's reinsurance program; significant reductions in the insurer's surplus; concerns about contingent liabilities; identified cash flow and liquidity issues; concerns about affiliate transactions. This model regulation also provides the state insurance regulator with the authority to correct corporate governance practice deficiencies and require insurers to adopt and utilize governance practices

acceptable to the supervisor. Under the same model regulation, the supervisor can consider whether the management of an insurer, including officers, directors, or any other person who directly or indirectly controls the operation of the insurer, fails to possess and demonstrate the competence, fitness and reputation deemed necessary to service the insurer in such position. There may be variations in the state enactment of these regulations, but the NAIC Accreditation program does require state law to be substantially similar to this model.

136. While these powers do appear to be comprehensive, insurer circumstances have to be severely negative before state insurance regulators have the power to take preventative and corrective actions. For example, to trigger the ability to take strong actions under the Hazardous Financial Condition Model Regulation (Model #385), state regulators have to determine that “the continued operation of the insurer licensed to transact business in this state may be hazardous to its policyholders, creditors or the general public...” This power is therefore triggered well after initial concerns are identified prior to reaching such an urgent situation. The FSAP team was presented with examples where this power was used but it was clear that this power was invoked at a point where there was a need for urgent action rather than an earlier point of intervention that may have avoided the need for urgent action. While state regulators often issue management comment letters to companies subsequent to an onsite examination that recommend various changes to business practices such as risk management and corporate governance, it would be preferable to deal with governance and risk management issues through regulatory requirements rather than having to trigger the need for urgent action based on severe deficiencies in the operations of an insurer.

Licensing

137. The Uniform Certificate of Authority Application (UCAA) was created by the NAIC to create a national uniform license application, and a majority of states (and Puerto Rico) accept the UCAA. The application can be used for all lines of insurance except for a Health Maintenance Organization (HMO). A company may need additional authorizations beyond receiving a Certificate of Authority to actually operate a business in some states. These additional state licensing requirements are based on either statutory or state specific requirements developed by the individual state.

138. Regulated insurance activities are defined in legislation; the lines of business that are permitted to be licensed in a state are defined in each state’s statutes. Unauthorized insurance activities are explicitly prohibited and subject to sanctions. The permissible legal forms of domestic insurers (domiciled within a state) and procedures and form for establishment of foreign insurers (domiciled in other U.S. states) are defined through a combination of insurance legislation and other legislation, such as state corporate law. In general, the state’s responsibility for issuing licenses is explicitly specified in legislation.

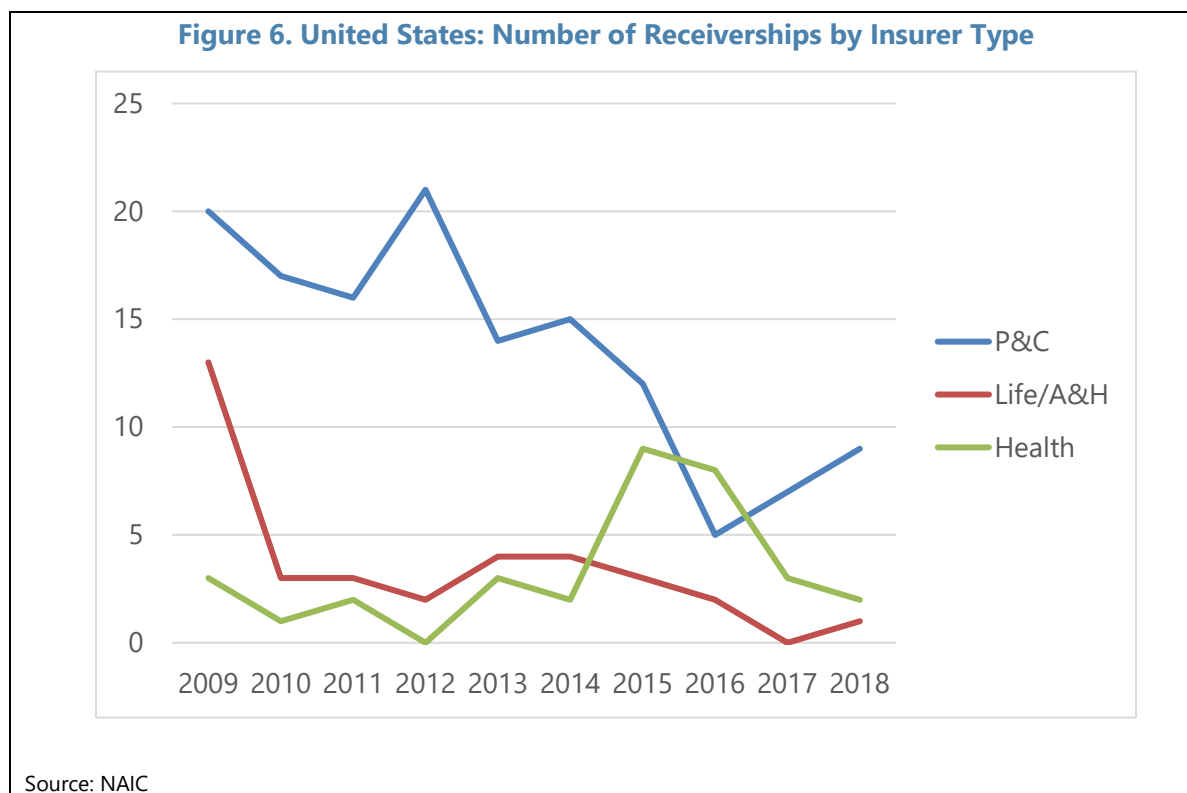
139. Licencing requirements are comprehensive and there is evidence that the circumstances, experience and financial standing of companies is assessed thoroughly. The FSAP team was made aware of cases where insurers licenced in U.S. states were denied licences to write business in other U.S. states due to the inadequacy of the insurer’s experience with the

relevant proposed state market or other shortcomings. States communicate effectively regarding licencing decisions.

140. Absolute minimum capital levels may vary between states, however in practice these do not appear to be the binding constraint to initial capital required for newly licenced insurers. State supervisors require licence applicants to submit business plans and require capital to be held at a level that will sustain healthy levels of solvency during the initial operations of the company. In practice, this means that the initial capital must meet multiples of ACL RBC required in the future under the business plan in order for the licence to be granted.

Exit from the Market

141. Considering the size of the U.S. insurance market, the number of insolvencies has been less than 1 percent of total domestic insurers in each of the last 10 years and is trending downwards. Table 5 shows the trend in new receiverships, which includes conservation, rehabilitation and liquidation, for the past 10 years by statement type.³²



³² Per NAIC Financial Data Repository (FDR) and NAIC Global Receivership Information Database (GRID). Note that GRID is a voluntary database updated by state insurance regulators.

142. U.S. state insurance laws and regulations establish and define a receivership scheme that provides states with broad powers in relation to the exit of insurance companies from the market. All states have enacted, a statute that governs insolvency proceedings of insurance companies. NAIC model laws are the basis for State receivership schemes. There have been a number of revisions to model laws related to receivership and guaranty funds over time. The most recent receivership model is Insurer Receivership Model Act (#555), which was adopted in 2007. Prior NAIC receivership models that are the basis for many states' legislation are the Uniform Insurers Liquidation Act, and the Insurers Rehabilitation and Liquidation Model Act.

143. Guaranty funds provide a safety net for policyholders and other claimants and beneficiaries of insurance coverage. Guaranty fund protection by both property and casualty associations, and life and health associations is triggered by the legal finding of insolvency and serves to indemnify policyholders, up to stated limits, that have a claim. For life and health guaranty associations, the safety net also includes the authority, depending on the circumstances, to continue policy coverage for the protection of policyholders. Guaranty Funds are authorized in states' laws that are based on the NAIC Life & Health Insurance Guaranty Association Model Act (#520) and Property & Casualty Insurance Guaranty Association Model Act (#540). These guaranty funds work in tandem with the insolvency laws and are established (on a state-by-state basis. The level of coverage is generally consistent across states with a few exceptions. For example, policyholder protection for life insurance death benefits varies from US\$300,000 to US\$500,000. If a failed insurance company does not have enough funds to meet its obligations to policyholders, the guaranty fund in each state collects funds from other member insurance companies in that state ex-post (after the insolvency) to make up the shortfall. There is a cap on the amount that can be assessed to each insurer. All insurers licenced in a state must be members of the relevant guaranty fund, with a few exceptions. A policyholder will be supported by the guaranty fund of the state in which they live.

144. Guaranty funds in each state work together through national associations. The National Organization of Life & Health Insurance Guaranty Associations (NOLHGA) provides a coordinating platform for life and health guaranty funds across all 50 states and the District of Columbia. When there is an insolvency of an insurer licenced across multiple states, NOLHGA, assembles a task force of guaranty association officials to analyze the company's commitments to policyholders. The task force then works with each state guaranty fund to ensure that covered claims are paid or arranges for covered policies to be transferred to a solvent insurer. Similarly, the National Conference of Insurance Guaranty Funds (NCIGF) provides a coordinating platform for property and casualty guaranty funds in the 50 states and the District of Columbia.

145. Collectively the system of receivership and liquidation laws along with the guaranty funds in each state and the coordinating role of the national associations of guaranty funds create an adequate system for resolution of insurers. It is notable that this system is yet to be tested by a failure of a complex set of insurance companies across life, health and/or P&C, other financial and non-financial entities and U.S. and international operations under common ownership through a holding company'.

Group Supervision

146. The lead state supervisor of a group is responsible for undertaking insurer holding company analysis. The domestic state supervisors of groups outside the domicile of the lead state supervisor are responsible for analysis of the impact of the insurance holding company system on their domestic insurer. Thus, the roles of lead state supervisor and domestic supervisor are clearly delineated but require them to work together.

147. The depth and frequency of the holding company analysis depends on the sophistication, complexity and financial strength of the holding company system, availability of information and the existing or potential issues and problems found during review of the insurance holding company filings. The analyst is required to document the results of the insurance holding company system analysis into the Group Profile Summary (GPS) annually but will update as needed. The process revolves around Forms B and C filings which are required to be analyzed by October 31 each year and recorded in the GPS so it can be shared with other domestic states within the group. However, there are other inputs into the GPS including the Form F, the ORSA and the Corporate Governance filing. While some may believe there are restrictions on what an analyst can summarize in the GPS about the ORSA due to confidentiality concerns, the analyst is expected to include in the GPS assessment its overall conclusions on the risks of the group and the overall risk management of the group. The Risk Management and ORSA Model Act (NAIC #505) allows for the sharing of ORSA Summary Reports and documents, materials or other ORSA-related information with other impacted regulators, the NAIC and third-party consultants. However, some states may be hesitant to share ORSA reports with other states due to differences in the adoption of confidentiality language associated with the reports. In these cases, other impacted states would need to request a copy of the ORSA reports directly from the insurer, which is allowed for under the model act. In addition, states should work to address differences in confidentiality language to ensure that ORSA-related materials can be freely shared across impacted states. The analysts of a domestic insurer within the holding company system must complete their analysis of the impact of the group structure on the domestic insurer by December 31 each year.

148. A number of statutory filings are helpful to the lead state supervisor in undertaking holding company analysis. Form B - Insurance Holding Company System Annual Registration Statement: Form B is filed annually on June 1 and contains information relevant to the governance and fitness and propriety of owners and officers of the company. Financial information is also supplied through this Form. The Management's Discussion & Analysis (MD&A) provides information on organizational structure, product lines, marketing systems, and strategic actions such as corporate restructuring that are being undertaken by a group. Analysts are also encouraged to seek other forms of information such as GAAP-based group consolidated financial statements, SEC filings, investor presentations available on company websites, rating agency reports, etc. Understanding the insurance company holding system is stated as a key objective. Through the risk-focused approach, analysts are encouraged to customize and tailor the group analysis to the risks of the insurance group. The Financial Analysis Handbook provides guidance, including 36 possible procedures which are not required to be documented in a checklist manner, but instead are meant

to assist the analyst in performing their analysis if needed. If used by the analyst, it suggests an undercurrent of rules-based mechanical process but must also be acknowledged as incredibly comprehensive.

149. Collectively, these processes for group supervision represent a significant improvement in state supervisory powers and processes compared to what was documented for the 2015 FSAP. The existence of supervisory colleges for all IAIGs is significant. Obtaining ORSA and sharing the results with relevant state insurance regulators of domestic companies outside the lead state is useful – the lead state is required to upload into the NAIC data base a comprehensive analysis of their ORSA review which can be downloaded by any domestic state within the group and model #505 specifically allows sharing with other state, federal and international financial regulatory agencies, including members of any supervisory college – but note the possible restriction on how much can be said about the ORSA in the GPS. This is regrettable as analysts should be free to record their views candidly and share important information. The GPS is a useful document for sharing information but based on the samples reviewed could contain more critical analysis to provide color to the analysts' views.

150. A significant missing element is the absence of the group capital requirement leaving analysts with traditional tools of balance sheet analysis like ratio analysis to assess risks. It is acknowledged that the NAIC and states are developing the GCC. However, this is an aggregation approach, which may provide less value in understanding group-wide risks from the perspective of group management which often look through legal entity barriers in day-to-day operations. As many groups are managed along business lines rather than legal entities, taking an aggregation approach to group capital may create a disconnect with how group management thinks about risk and executing their business strategies.

151. It is notable that there is a different approach for IAIG's versus domestic groups although one state, Connecticut, was observed to be holding regional colleges which appears to be a best practice. The regional colleges process is encouraged to be rolled out on a wider basis so that supervisors within the U.S. state system can benefit from the kind of information that is derived from a supervisory college platform. Equally, a formation of some CMGs for IAIGs is a positive development. However, membership needs further consideration. At this stage, a subset of supervisors of more material parts of the group are members of the CMG making it more exclusive than the wider supervisory college and in the case of New York the Liquidation Bureau participates which is appropriate as it is a resolution authority. There may be a need to involve more resolution authorities in CMGs going forward.

Group Capital

152. As discussed above, there are two parallel processes in motion domestically to develop group capital:

- The Federal Reserve is developing its BBA.
- The NAIC is developing its own GCC.

Both employ a similar aggregation approach. These approaches may diverge in certain technical areas while aiming for comparable outcomes over time. For example, there is likely divergence on calibration where the focus of the Federal Reserve is to calibrate the capital requirements for insurance and other financial activities to comparable levels as compared to the NAIC approach which appears to be developed to calibrate toward existing U.S. insurance capital requirements. Additionally, the United States, as well as other jurisdictions, are developing the Aggregation Method as a potential alternative to the ICS. The first question this raises is whether the eight SLHCs will be required to report both the BBA capital requirement to the Federal Reserve and the GCC to its lead state supervisor. The BBA is a proposed capital requirement and all firms subject to the rule would be required to submit the calculation to the Federal Reserve on an annual basis.

153. There is only one source for supervisors to obtain a consolidated economic view of risk with risk metrics and that is the ORSA. The ORSA is inherently a company view and as such will not be comparable even if the recommended benchmarking occurs. Supervisors have access to consolidated GAAP-based financial statements for the group (where the group has issued them in the normal course of business such as a public company rather than a mutual) but this mainly provides accounting information and does not include risk metrics.

154. The NAIC, state insurance regulators and the Federal Reserve should develop a consolidated group capital requirement. Developing a version of GAAP-Plus ICS based on U.S. GAAP is recommended as an internationally consistent way forward to addressing the current gap in insurance group capital requirements in the United States. The GAAP-Plus approach is designed to use jurisdictional GAAP as a basis for calculating the ICS. It is acknowledged that in November 2019, the IAIS agreed to move forward with a plan that will consider the comparability of the Aggregation Method and the IAIS ICS reference method, which is not finalized at the time of the FSAP completion.

155. If the GCC is adopted, it should be made a requirement rather than just a calculation to add credence to the initiative. If companies know that there is a consequence to breaching a group capital requirement, they are more likely to take it into account in their management of the company. If there is a calculation where an adverse ratio is reported then it remains an open question as to what the supervisor could do about it. Undoubtedly, one option is to use the extensive powers available under the hazardous financial condition model law. However, as already described above that may be difficult to justify until the group is in serious financial stress.

C. Supervisory Cooperation

Domestic Cooperation

156. The existing institutional landscape places a strong onus on an effective supervisory cooperation among all involved parties at the state and federal level. States provide the primary supervision of insurers while federal agencies such as the FIO and FRB occupy specific roles. As many insurers operate in a number of states, each state having its own insurance supervisory system, there is a need for cooperation among state supervisors. Finally, there is a need for

international supervisory cooperation with financial supervisors in other countries due to a) the operations of U.S. domestic insurers in other countries and b) the operations of non-U.S. insurers in the United States.

157. In SLHCs with substantial insurance business, the Federal Reserve does not seek to replace or override the role of the lead state regulator (and is required by law to rely as far as possible on state supervisors' work). It works in parallel with the lead and other states, coordinating with the lead. Both state and FRB regulators may invite the other to participate in joint examination work. Such work has been limited to date. The FRB has access to insurance companies' financial statements and most states also provide the FRB with quarterly and annual analysis work papers as well as state offsite analysis and examination work papers when requested.

158. For state insurance regulators, the coordination of insurance supervisory activity is the responsibility of the lead state supervisor. Decisions on which state is to lead are taken collectively by the domestic state regulators of the group (i.e., supervisors in states where the group's legal entities are incorporated). They take account not only of the domiciliary state of the parent or largest insurance company, but also the physical location of the main corporate offices or largest operational offices of the group, states' knowledge of the various business attributes and structures, and affiliated arrangements or reinsurance agreements. (NAIC Financial Analysis Handbook, section 4E Holding Company Analysis).

159. The lead state is responsible under the NAIC accreditation standards for undertaking the holding company analysis where a company is part of a holding company system. The lead state will also typically coordinate supervisory work (leading multistate examinations) and chair the supervisory college for relevant U.S. groups. Lead state supervisors are in place for all groups. There are prescribed set of roles and responsibilities for lead states as set forth in section VI-B of the Financial Analysis Handbook. This includes:

- completing the holding company analysis and the Group Profile Summary;
- assessing Corporate Governance Risks;
- assessing Enterprise Risk Management (EM) Risks;
- considering Market Conduct Risks;
- conducting a Period Meeting with the Group;
- coordinating the Risk-Focused examination;
- performing Targeting Examination Procedures;
- other coordinating activities such as:
 - the establishment of procedures to communicate information regarding troubled insurers with other state insurance departments;
 - participation on joint examinations of insurers;
 - assignment of specific regulatory tasks to different state insurance departments in order to achieve efficiency and effectiveness in regulatory efforts and to share resources and expertise;

- establishment of a task force consisting of personnel from various state insurance departments to carry out coordinated activities; and
- coordination and communication of holding company system analysis. (*NAIC Financial Analysis Handbook, section VII, Appendix A, Holding Company and Supervisory College Best Practices*).

160. Information-sharing procedures between the states are defined. These are a component of the NAIC accreditation standards and accreditation program as is holding company analysis. The wider role and effectiveness of the lead state regulator is being addressed with the inclusion of the GPS. Lead states may coordinate regular discussions amongst U.S. supervisors in between meetings of the supervisory college, where relevant. They have a key role in coordinating work on proposed change in control and on multi-state troubled companies, including coordination with foreign regulators, if any.

161. A key role for lead states is the coordination of regular examinations. Although states have long been able to rely on financial examinations undertaken by another state where that state is accredited, this has not always led to coordination of examinations of multi-state firms or to the adoption of a group-wide approach to examinations. The lead state system, coupled with pressures for increased efficiency, has helped to deliver a more coordinated approach in recent years.

162. The lead state also leads on coordination between insurance regulators and bank supervisors. For all SLHCs, there is an identified state insurance regulator which is the key interface with the relevant Federal Reserve Bank, although other states may also be involved in discussions with the Federal Reserve, depending on the issue, including through the supervisory college.

163. One example of state cooperation is their participation in the FAWG. The Working Group's primary role is to identify insurance companies and groups of national significance that are, or may be, financially troubled, and determine whether appropriate regulatory action is being taken, and if not, what action should be taken. This group of state regulators meets and holds conference calls throughout the year. This peer review process is an essential part of the state-based system of insurance regulation in that it reinforces the communication and cooperation that is necessary to regulate insurers and insurance groups.

International Cooperation

164. Supervisory colleges have been established in recent years for all U.S. insurance groups meeting the definition of an Internationally Active Insurance Group (IAIG) developed by the IAIS. A total of 12 U.S. group colleges now meet, at different frequencies, along with some regional colleges. Colleges are chaired by the lead state supervisor, who assumes the role of Group-Wide Supervisor (GWS). CMGs have been formed for two IAIG's by the New York DFS and one by New Jersey. At present 19 states are signatories to the IAIS Multilateral Memorandum of Understanding (MMoU), a global framework for cooperation and information exchange between insurance supervisors.

165. The NAIC has developed guidance for the establishment and management of supervisory colleges, drawing on the IAIS Guidance Paper on the Use of Supervisory Colleges in Group-Wide Supervision. This emphasizes that supervisory colleges need to be viewed as part of the risk-focused surveillance process as well as the need for college work to include crisis preparedness. (NAIC Financial Analysis Handbook, section VII, Appendix A, Holding Company and Supervisory College Best Practices).

166. Membership of international supervisory colleges generally comprises the involved U.S. state regulators and all foreign regulators, if they choose to participate (CMGs, by contrast are smaller groupings, with foreign regulators of the major parts of the group only). The FIO has participated in some CMGs but not in colleges. Some states have explicit thresholds for participation, expressed in terms of the size of the business in the United States and its share of the host country market.

167. Colleges for U.S. groups generally operate on the basis of terms of reference agreed by the members on the initiative of the U.S. chair. These terms of reference define expectations of the purpose of the college, set out membership and identify the GWS as well as specifying roles and responsibilities, scope of activities, frequency of meetings etc. The use of colleges for IAIGs appears well established based on the assessors' reviews. File reviews indicated colleges for IAIG's were conducted every year but may rotate format with in-person meetings between the international supervisors and senior management of the IAIG over one or two days or a conference call or webinar, depending on supervisory needs. A typical agenda included management presentations and discussion at a C-suite level as well as international supervisory discussion in camera. Frequent topics of discussion include group profitability, key risks, capital and governance matters.

168. Supervisory colleges appear to have not yet developed a structured, shared view of group-wide risks, group-wide governance, and risk management outside of what is documented in the GPS. Absent a U.S. or global groupwide capital standard view on the financial condition of the group, comparing capital and surplus to standardized risk measures is not a feature of discussions yet either.

MACROPRUDENTIAL SUPERVISION

A. Federal Role – FSOC and FIO

169. In December 2019, FSOC published final interpretive guidance that announced its intention to apply an activities-based approach to assessing potential risks to U.S. financial stability arising from non-bank financial companies, including insurers. This interpretive guidance replaced its 2012 interpretive guidance on nonbank financial company determinations and includes processes for making a determination under s113 of DFA to subject a nonbank financial company to supervision by the Federal Reserve. Those processes for determination under s113 of DFA included enhanced analytical rigor and transparency. By the end of 2014, four nonbank financial companies (three of which were insurers) had been designated by FSOC under s114 of DFA based

on the 2012 FSOC guidance. This resulted in supervision of the designated non-bank financial companies by the Federal Reserve. In March 2016, the U.S. District Court for the District of Columbia to rescind the designation of an insurer by FSOC. In January 2018, FSOC discontinued the appeal process for that decision. FSOC rescinded the one non-insurer, nonbank designation in June 2016 and rescinded the two-remaining insurer SIFI designations in September 2017 and October 2018. FSOC has the authority under s120 of DFA to “provide for more stringent regulation of a financial activity” by publicly issuing non-bank recommendations to primary financial regulatory agencies to apply new or heightened standards and safeguards for a financial activity or practice conducted by certain financial companies. Pursuant to the final guidance, FSOC will pursue entity specific determinations under s113 of DFA only if a potential risk or threat cannot be adequately addressed through an activities-based approach.

170. The activities-based approach to identifying risks to financial stability is yet to be tested and some practical implementation modalities remain unclear, however the move in the United States to an activities-based approach is in line with international developments and does have benefits. The maintenance of a potential SIFI designation under s113 is an important feature. The activities-based approach is intended to identify and address risks to financial stability on a system-wide basis, regardless of the type of entity, regulatory body or charter and will reduce potential for regulatory arbitrage and competitive disadvantages across entities and sectors. This will allow existing regulatory entities, for example the state insurance regulators, to address potential threats to financial stability rather than have an additional regulator, the Federal Reserve, involved. Under the final interpretive guidance, risks to financial stability that can be assessed include elevated asset valuation risk, rising credit risk, excessive leverage, elevated liquidity risk, interconnectedness across the financial sector, growth of unregulated financial activities and operational risks including those arising from the digital transformation of the financial sector. FSOC’s consideration of amplified financial stability risks will focus on how the risk could be triggered, how adverse effects could be transmitted to financial markets or financial entities, the impact on the financial system and whether that impact could harm the U.S. economy. Examples of the methodologies and data used in the assessment of risk in the financial sector is demonstrated in the annual reports of FSOC. Where a potential risk is identified, relevant federal and, in the case of insurers, state regulators could receive recommendations for implementing heightened or new regulations to address the potential risk to financial stability under s120 of DFA. Importantly, relevant regulators, including state insurance regulators, would be consulted on the assessment of the potential financial stability risk and options for regulatory responses to the risk. Further discussion of this change of emphasis by FSOC when assessing financial stability risks in the nonbank sector are set out in the Macroprudential Supervision Technical Note.

171. The insurance sector needs to be represented on FSOC through a member who has authority to take supervisory action with respect to financial stability issues. The insurance sector is represented on FSOC by the independent member with insurance expertise who is a voting member, the director of the FIO who is a non-voting member, and a state insurance commissioner who is a non-voting member. Of those three members, only the state insurance commissioner has

any authority to supervise and regulate insurers.³³ It would be appropriate to upgrade the State Insurance Commissioner member to a voting member, replacing the independent member with insurance expertise.

172. The mandate of the FIO includes monitoring the insurance industry, including identifying issues or gaps in the regulation of insurers that could contribute to a systemic crisis in the insurance industry or the U.S. financial system. The FIO also has a mandate to recommend to FSOC that it designate an insurer as an entity subject to regulation as a nonbank financial company. Before the Secretary of the Treasury makes a determination to resolve an insurer under Title II of the DFA, the Secretary must first receive a written recommendation from the FIO Director and the Federal Reserve. Additionally, FIO and the Federal Reserve coordinate on annual analyses of nonbank financial companies supervised by the Federal Reserve, particularly with respect to stress testing. At the international level, FIO represents the United States at the IAIS and assists the Secretary in negotiating covered agreements.

B. State Insurance Regulator's Role

173. The NAIC's Financial Regulatory Services and Capital Markets Bureau are charged with monitoring, gathering and producing data on insurer activities and considering broader market factors that could have an impact on insurers, insurance groups or the insurance industry. Relevant data is made available to state insurance supervisors through regulatory data tools. This data is also provided to the FAWG which produces a regulator-only Risk Alert twice a year designed to keep regulators up to date on material and emerging risks. The Risk Alert leverages both NAIC data and FAWG members experience in their own states. Those issues that are capital markets related are also shared with the Valuation of Securities Task Force.

174. The NAIC's Financial Stability Task Force (FSTF) began work on the Macro Prudential Initiative (MPI) in August 2017. The MPI is focused on four areas: liquidity risk, recovery and resolution, capital stress testing and counterparty exposure concentrations. The FSTF referred work on recovery and resolution to the NAIC Receivership & Insolvency Task Force (RITF) to evaluate:

- Recovery and resolution laws, guidance and tools, and determine whether they incorporate best practices with respect to financial stability.
- Recovery and resolution planning tools for systemically important cross-border U.S. groups.
- Whether there are misalignments between federal and state laws that could be an obstacle to effective and orderly recovery and resolution for U.S. insurance groups.

³³ State insurance regulators have varying degrees of authority over any insurance group for which they are a lead supervisor, any insurance company for which they are the domiciliary regulator, and any insurance company operating in their state as a licensee.

175. Capital Stress Testing has been deferred until the GCC initiative is complete. Once the GCC is operational then work can begin on applying stress testing to the calculation.

176. The FSTF is considering the need for additional tools and/or data to assess counterparty concentrations. This would be at the legal entity and group level. The assessment would take into account exposure concentrations that arise from both on and off-balance sheet items. The FSTF aims to identify any gaps in current reporting and disclosures and propose ways to address gaps where they are found. The FSTF is attempting to develop a U.S. sector-wide risk assessment heat map with the objective of assessing the U.S. insurance sector's vulnerability to macroeconomic exposures and therefore identify systemic risk. This would be based on existing data, tools and reports.

177. The NAIC's Financial Regulatory Services group provides state insurance regulators with analysis on a broad range of issues. These issues include the state of the reinsurance market, reinsurance companies, and the impact of alternative capital through insurance linked securities. The group researched different ways that an insurer's assets could be restricted for more general use, e.g., through being pledged as collateral for different types of transactions.

178. The NAIC's Capital Markets Bureau monitors activity as it may relate to or have an impact on the investments or investment practices of insurers. Information is published and shared on a confidential basis with state insurance regulators. Examples of areas of focus include securities lending, various aspects of structured securities, derivatives use, reliance on external asset managers and commercial real estate exposure. Recently, analysis was performed related to the recent problems with a California utility company and the impact of that on the industry. The purpose of this analysis is to identify if any issues exist that state regulators should consider addressing by taking action on specific companies related to the issue.

179. The Center for Insurance Policy and Research (CIPR) provides research and education to drive discussion and advance thought leadership as well as action on current and emerging insurance issues amongst state insurance regulators, the insurance industry, academics and other policymakers. This is achieved through a series of integrated research activities including (i) hosting big picture insurance market issue programs (e.g., State of Long-Term Care Insurance) as well as more focused research policy sessions (TRIA policy workshop) at NAIC annual meetings; (ii) publishing CIPR developed research on NAIC key Initiatives as well as facilitating the wide distribution of rigorous, high quality research from the academic community regarding insurance regulatory issues through the Journal of Insurance Regulation; (iii) application of research findings to regulatory operations via various training curriculum and (iv) maintenance of numerous issue briefs on their website that explain complex insurance issues and link to relevant state insurance supervisor activity.

180. The description above details a rich source of resources, analysis and communication across state insurance regulators. The issue going forward will be if these various sources can be pulled together into a coherent macroprudential surveillance framework and also fully address the IAIS' holistic framework for systemic risk in the insurance sector. The ongoing work of the FSTF is

acknowledged and encouraged. It is suggested that the FSTF reconsider its focus going forward, so that, in addition to addressing domestic objectives, it focuses on implementation of the IAIS holistic framework and ensures existing relevant workstreams are meeting that objective.

181. The FSAP recommends several actions to further expand and deepen the authorities' analysis of risks in the insurance sector. Generally, the NAIC's framework for monitoring individual asset-side risks is quite advanced, but could benefit from further integrating:

- While exposure analyses are a standard tool used by NAIC, scenario-based stress testing could enhance vulnerability analyses, especially if investment, underwriting and liquidity risks are correlated. In this context, the pioneering work by the NAIC on a liquidity stress test is commended. Accordingly, regular scenario analysis should consider liquidity characteristics of both assets and liabilities.
- In a low-for-long interest rate environment, state supervisory authorities and the NAIC should closely monitor reinvestment risks and search for yield behavior. This monitoring should go hand-in-hand with an assessment of insurers' risk management capabilities when investing in more exotic assets.
- State supervisors, together with the NAIC, should further analyze the exposures of primary insurers to natural disasters, taking into account also the capacity of and pricing trends in the reinsurance market. For states with catastrophe or guarantee funds in place, these should be included in the analysis to identify potentially misaligned incentives and to minimize (local) market disruptions after a severe disaster.

CHANGING INCIDENCE AND SEVERITY OF NATURAL CATASTROPHES

182. Losses arising from the increasing incidence and severity of natural catastrophes is a concern for the insurance sector in the United States and globally. The issue is important more broadly for the financial sector, while the insurance sector is central to mitigating the evolving risks. The U.S. Government's National Climate Assessment 4 (NCA4) provided a comprehensive analysis of the impact on U.S. society and the U.S. economy of evolving risks from climate-related natural catastrophes. However, the impact of the changing climate on increasing the frequency of flooding along the U.S. coastline and the incidence of wildfires is of most interest for the insurance sector. It is these two effects that are the focus of this section of the TN.

183. While the following section addressing specific perils focus on the observed changing state of losses and related insurance issues, what has not been directly addressed is impact of the gradual intensification of climate-related natural catastrophes in the future. For example, with respect to hurricanes increased severity through higher sustained wind speed and slower

motion of hurricanes are expected.³⁴ Similarly, for flooding, an increase in risk is predicted.³⁵ Essentially, the observations set out in the sections below based on observed climate-related events are an indicator of the issues the industry will face going forward as these risks evolve.

184. The Mitigation Framework Leadership Group (MitFLG) was established to coordinate risk mitigation efforts across the federal government. The Group is chaired by FEMA and has FIO membership. In August 2019, it published the National Mitigation Investment Strategy³⁶ which, among other things, supports better links between risk reduction and financial risk transfer mechanisms, such as insurance, to mitigate against natural-hazard related risks.

185. State insurance regulators are also coordinating their efforts to address catastrophe and resilience issues. The NAIC Catastrophe Insurance Working Group is finalizing the NAIC State Disaster Response Plan, including compiling state actions post-disaster including state bulletins, data calls, and information related to call centers. The Working Group is currently monitoring development of the private flood insurance market, including reporting on data compiled from state data calls, allowing for further analysis of private flood market development. The Working Group is reviewing the NAIC Catastrophe Modeling Handbook with the aim to create an ongoing resource on catastrophe modelling.

186. Six state regulators conduct an annual Insurer Climate Risk Disclosure Survey of insurers that operate in those states. Contributors to the survey are insurance companies with direct written premiums over US\$100 million, which are around 1,000 insurers representing 70 percent of U.S. direct written premium. The survey is a multi-state initiative that includes California, Connecticut, Minnesota, New Mexico, New York, and Washington State. The California Department of Insurance serves as the central location for insurers, regulators and members of the public to access survey information from this multi-state initiative. Beginning with the 2019 survey, insurers were encouraged to align their responses with the recommendations of the private sector led Taskforce for Climate-Related Financial Disclosure (TCFD) established by the Financial Stability Board (FSB). There was little take up of this option in the first year, however.

187. The Insurer Climate Risk Disclosure Survey results for 2019 show that insurers have a short-term focus in their investment and underwriting decisions; longer term climate risks are not a focus. Most insurers responded that the duration of their investment horizon is shorter than the current perception of potential climate change developments. Insurers with longer investment horizons tended to state climate-risk is assessed as one of many investment risks considered in their comprehensive enterprise risk management (ERM) process. Many insurers with significant investments in real estate and/or mortgage-backed investments, stated their investment decisions recognize certain parts of the country are more vulnerable to natural disasters. Many insurers stated their current investment diversification and geographical asset allocation is sufficient to account for

³⁴ Schiermeier, Q. Hurricanes are getting fiercer. *Nature*, September 2008.

³⁵ Jergler, D, Report: Florida will see noticeable climate change impacts in 20 years, *Insurance Journal*, February 2020.

³⁶ National Mitigation Investment Strategy, Mitigation Framework Leadership Group, August 2019 <https://www.fema.gov/media-library/assets/documents/181812>.

climate risk. Insurers also reported offering some discounts and credits for mitigation actions, for example, in wind-affected states, discounts are often offered for mitigation devices/techniques, such as storm shutters, in addition to pricing incentives for higher deductibles.

California Wildfires

188. Destructive wildfires in California have become an annual event causing significant loss of property and life. Wildfires caused an estimated US\$18 billion of insured losses in each of 2017 and 2018 and were the most destructive years in the state's history.³⁷ There is evidence of insurers beginning to withdraw from providing coverage from high risk zones known as the Wildland Urban Interface (WUI).

189. The cost of homeowners' insurance in California's WUI and rural forested communities is increasing substantially, even in areas that are thus far unaffected by recent wildfires. An analysis by Milliman shows that on a gross basis³⁸ the P&C insurance industry made cumulative profits of US\$10.2 billion over the 25-year period from 1991 to 2016 but in 2017 and 2018 have a combined loss of approximately US\$20 billion.³⁹ Modeling firms are working to recalibrate models based on the experience of 2017 and 2018 as well as more recent events in 2019. In particular, these models did not appropriately account for the windspeed that caused the fast spread of the wildfires and hampered firefighting activities. Reinsurance is also becoming more expensive on the basis of the changed perception of risk. This has caused insurers to request rate increases but these face barriers in California where insurers are not allowed to take into account increases in reinsurance premiums or changes in the scientific analysis of risks via catastrophe models. Instead, insurers are allowed to take into account a catastrophe load based on at least the last 20 years of catastrophe losses. They can now take into account the experience of 2017 and 2018 and this is seen in filings for rate increases. Over the years 2018 and 2019, based on 51 rate filings, the average indications for necessary rate increases were 27.07 percent but average rate changes requested at only 6.35 percent.⁴⁰ This discrepancy between the requested rate increase and the necessary rate increase is due to a quirk of California law where a public intervenor group can demand a public hearing if an insurer requests an average rate increase over 7 percent. The result is that many insurers request 6.9 percent increases to avoid this process which can take 14 months instead of an average of five months without a public hearing. These requested average increases hide much more significant increases for individual policyholders in high risk areas. Many insurance companies have been filing multiple rate increase applications within a 12-month period. Many, if not most insurers have received multiple rate increase approvals within a 2–3 year period, avoiding the hearing process while still achieving cumulative rate increases much greater than 7 percent per annum, often

³⁷ Insurance Information Institute estimate based on data from catastrophe risk modelers, reinsurance companies, the California Department of Insurance and the Property Claims Services unit of Verisk Analytics.

³⁸ Looking at profits and losses on a gross basis does not take into account reinsurance recoveries, subrogation recoveries and investment earnings on premiums.

³⁹ D. E Evans, C. Webb, and EJ Xu, Wildfire catastrophe models could spark the changes California needs, October 28, 2019, Milliman Website.

⁴⁰ Source: Ratefilings.com.

incrementally producing double digit overall rate increases. For high fire risk areas, this likely means 50–200 percent increases.

190. Insurers have tools to manage their risks, including, by determining appropriate premium pricing, choosing which risks to write through underwriting processes and reinsuring some risks, particularly tail risks related to catastrophes. Internally, they will use catastrophe models to inform each of these decisions. If an insurer cannot charge the premium it believes is commensurate with a risk, it can choose to use its underwriting processes to not accept that risk. In California, the use of underwriting decisions is restricted by requiring renewal of policies in affected areas declared to be disaster areas by the Governor of California.⁴¹ The lack of recognition of reinsurance costs and catastrophe modelling in rate filing processes are further restrictions on insurers' risk management practices. The California Department of Insurance (CDI) has also required insurers to increase the coverage period for additional living expense coverage from 24 months to 36 months, an increase in claims costs that insurers have not originally priced into premiums. This regulatory approach restricts the natural economics of insurance in an attempt to shield consumers from volatility in the price and availability of insurance cover. Such restrictions may stabilize the market in the short-term but will have medium term consequences, particularly as statutory underwriting restrictions time out. It is likely that in the absence of significant rate increases insurers will attempt to exit high risk areas in the medium term (3–5 years) unless risks are mitigated.

191. The impacts of non-renewal on some local communities in California are significant, while on a state-wide basis it does not yet appear to be material.⁴² In high risk ZIP codes, insurer initiated non-renewal of properties does not appear to have materially increased in 2018 (figures for 2019 are not yet available) based on data from the CDI. From 2015 to 2017, insurer initiated non-renewal of policies averaged 86,643 policies and this increased to 88,187 in 2018 which was not as high as in 2015 when the figure was 89,571. This contrasts with insured initiated non-renewal of 375,388 policies in 2018 compared to an average of 370,455 policies not renewed by insureds each year over the preceding three years. New policies issued in those areas were 501,214 compared to 494,470 new policies issued on average each year in the previous three years.⁴³ State-wide, total renewed policies also remained at a healthy 3,800,919 compared to the previous average over three years of 3,782,218. The data on non-renewal has limitations in that it does not track what happened to policyholders who decided not to renew policies or where the insurer decided not to renew. It is not clear if these consumers ended up in the new policies issued statistics (which does include cover issued over new homes) or simply did not obtain cover due to cost. What these figures indicate is that there has been no immediate shock to the availability of cover in 2017 and 2018. This may be due to the CDI action requiring renewal of policies in affected areas.

⁴¹ SB 824 (Lara), Chapter 616, Statutes of 2018 and SB 894 (Dodd), Chapter 618, Statutes of 2018.

⁴² All data in this paragraph provided by CDI.

⁴³ All figures quoted in this paragraph taken from http://www.insurance.ca.gov/0400-news/0100-press-releases/2019/upload/nr063_factsheetwildfire.pdf.

192. The Californian FAIR Plan is the insurer of last resort in California and trends in the policies it issues is an indicator of availability of cover in the admitted market. Membership of the FAIR Plan is required by the Insurance Code. The FAIR Plan is a syndicated fire insurance pool that issues policies on behalf of its member companies. If it faces losses it can issue assessments to its member companies based on their share of the market. Coverage is available to all California property owners, provided the property to be insured meets certain requirements. The FAIR plan issued a total of 89,248 new policies in the years 2015 to 2018 representing 13.3 percentage of non-renewed policies statewide (i.e., not just in high risk areas).⁴⁴ However, in-force policies show an increasing concentration in certain counties subject to wildfire risk. After the Camp Fire of November 2018 there were 122,310 FAIR plan policies in force which increased to 179,263 policies as of January 2020. Prior to November 2018, the FAIR Plan would typically write about 2,000 policies per month but in October 2019 this peaked at almost 9000 policies per month. While the percentage increase in the FAIR Plan business looks significant on a standalone basis, when compared with the total California homeowners' insurance market in 2018 of 8.5 million policies, the increase in FAIR Plan policies does not look significant from a state-wide perspective. It must be noted that the FAIR plan is an expensive option for fire cover.

193. The surplus lines market is another avenue for homeowners who cannot obtain cover in the admitted market and there is evidence of increasing prices in this market. A key aspect of the surplus lines market is that it does not have the same consumer protections as the admitted market including, significantly, CDI rate regulation. In 2019, the surplus lines homeowner's premium in California totaled US\$232 million from 46,479 transactions which is a significant increase from 2018 when there was US\$122 million of premium from a greater number of transactions, 49,821. This increased premium but slightly decreased number of transactions is indicative of significant premium increases and perhaps higher value homes being covered.

194. Most insurers do not take into consideration wildfire mitigation conducted by homeowners or the community, either for underwriting or for offering a premium credit for mitigation efforts. A lack of evidence that mitigation efforts are effective, as well as a lack of assurance that the mitigation has occurred and is maintained, are issues that undermine the ability of insurers to take into account wildfire mitigation.

195. The California Department of Forestry and Fire Protection (CALFIRE) and the Insurance Institute for Building & Home Safety (IBHS) propose the creation of a three-tiered set of standards for wildfire mitigation. The three-tiered approach is set out in a document created by the California Tree Mortality Task Force – Insurance Sub-Group.⁴⁵ This approach is similar to that used in relation to other perils involving wind, such as hurricanes and it could allow insurance

⁴⁴ Source for all data in this paragraph and the subsequent paragraph: Wildfires and Homeowners Insurance: Availability in High Risk Communities, Informational Hearing, Senate Committee on Insurance, California State Senate, February 12, 2020.

⁴⁵ Tier Risk Management Model for Wildland Fire Insurance Evaluation Version 3 with expanded details for types, California Tree Mortality Task Force – Insurance Sub-Group, January 2018.

providers to consider underwriting according to their risk tolerance and to potentially provide discounts for mitigation.

196. Regulatory responses that ensure there is an adequate price signal of the increasing risk homeowners face would incentivize mitigation efforts to enhance resilience. Regulatory responses to this changing risk should be strategically focused on the medium to long term, matching the nature of the evolution of those risks. It would be most effective if the insurance sector, CDI, California Government, and Federal government bodies worked together to develop a sustainable solution to affordable insurance applying multiple policy initiatives. The mission recognized that these policy initiatives would need to make nontrivial tradeoffs between affordability for consumers, sustainability and resilience of the insurance market.

197. While it is impossible to set out policy prescriptions a priori to deal with the issues faced by the California homeowners' insurance market, a long-term plan is needed to make the market sustainable. Authorities and the industry should work together to develop a medium to long-term plan with the aim of achieving sustainable risk-based pricing of insurance. A medium to long-term plan can include protecting policyholders from short term volatility in premium price and availability of cover. Medium to long-term plans will incentivize insurers to remain in the market through giving them certainty in the regulatory environment in which they can execute their strategic plans. Medium to long-term plans will allow time to develop standardized mitigation measures, time for policyholders to invest in those measures and adjust, as necessary, to higher premiums. Through the cycle pricing is important. Catastrophe risk needs to be considered over several underwriting years acknowledging that the industry will be profitable in years without catastrophes and that will be balanced against losses in years with significant catastrophes. An appropriate regulatory response may be to restrict dividends in highly profitable years without catastrophes to allow surplus to build in anticipation of high loss years with catastrophes (as has been done with the contingency reserve for PMIs). A forward-looking approach to natural catastrophes will be important to capture the evolving nature of those risks and that means there should be a place for scientifically based catastrophe modelling. Some lessons may be learned from how the regulatory environment is structured in Florida after its ongoing adjustment to increased hurricane risk following Hurricane Andrew in 1992. In addition, scenario-based stress testing could be a useful tool to inform risk analysis by the supervisor in a prudential and macroprudential supervision context. Scenario-based stress testing is an appropriate tool to deal with the high uncertainty surrounding the conclusion of climate science and the link between climate change and hazards.

Hurricanes in Florida

198. Florida is significantly exposed to hurricanes and accounts for 41 percent of all hurricanes making landfall in the U.S. Five of the costliest hurricanes in U.S. history hit Florida – Irma, Andrew, Wilma, Michael, and Charley. Florida also has a very high value of insured properties in coastal counties.

199. Hurricanes pose two major threats: damage from windspeed and damage from flooding due to storm surge. Of these two major risks, losses are usually greater from flooding. There are two separate coverages needed to fully address risks from hurricanes: the standard homeowners' policy which includes cover for damage from windspeed and an additional policy to cover damage from flood.

200. Standard homeowners' policies are provided in a competitive market by private insurers. Florida has been able to create a stable, competitive market over time after the dislocations of significant hurricane loss events in 1992 (Andrew) and 2004 and 2005 (multiple Category 3 and above hurricanes). The regulatory environment as described below has contributed to this outcome.

201. In addition to the usual supervisory activities of a state supervisor, The Florida Office of Insurance Regulation (FLOIR) conducts an annual Catastrophe Stress Test and Reinsurance Data Call. The focus on reinsurance is necessary as the Florida insurance market is dependent on the traditional reinsurance market and the alternative risk transfer market to manage its risks. The reinsurance data call is a process that extends from February to June and is conducted in three parts. This enables FLOIR to assess the reinsurance programs that insurers intend to put in place and then compare these intended programs with the reinsurance cover that is obtained in the market. The annual stress test is based on scenarios of previous hurricanes.

202. The Florida Hurricane Loss Projection Methodology Commission (FHLPMC) considers hurricane computer simulation models used in rate filings and to determine maximum loss levels. In 2014 it was also charged with a similar role with regard to residential flood insurance coverage in anticipation of the development of a private flood insurance market. The Florida Hurricane Catastrophe Fund (FHCF) must also use Commission findings to establish premiums. The FHLPMC has approved models that it assessed as accurate and reliable. The FHLPMC acknowledges the science underlying the models continues to evolve and that uncertainty is inherent and acceptable. It has found model results differ widely and it is attempting to understand the variation. This leads to an observation that by approving specific models for rate filings prevents insurers from using a blend of outputs from various models and their own judgement in using these models for the purposes of rate filings. Allowing a blend of outputs may be more appropriate and would reflect how many insurers use these models for risk management purposes.

203. The FHCF is a tax-exempt state trust fund providing reimbursement to insurers for some of their catastrophic hurricane losses and participation in the FHCF is mandatory. It was created to provide market stability after Hurricane Andrew. Both the FHLPMC and FHCF are administered by the State Board of Administration and are therefore separate from FLOIR. Residential property insurers may elect different coverage levels. There is a statutory limit of US\$17 billion of fund coverage available across the market. FHCF premiums reflect hurricane risk and specifically do not fluctuate based on market conditions. This stability of pricing facilitates long-term commitment of capital by insurers to the Florida market. This has been a vital feature of the homeowners' market in Florida and has enabled a stable market to evolve with localized insurers. Several large national carriers exited the Florida market. The FHCF gives access to reinsurance at a

price that would not be able to be obtained in the private reinsurance market due to the tax exemption and absence of profit requirement. FHCF can fund losses through its assets, from risk transfers into the reinsurance and capital markets and from pre and post event issued bonds which can be serviced by assessments on all homeowner policies in Florida.

204. Citizens Property Insurance Corporation (Citizens) is the insurer of last resort in Florida. Citizens provide insurance for residential and commercial property for applicants who are unable to obtain insurance through the private market. If there is other qualifying coverage available in the private market, risks cannot be covered with Citizens. To that end, risks for specific coverages with Citizens are required to be submitted to a Clearinghouse and offered to other insurers. This has been successful in reducing the footprint of Citizens.

205. Although the Florida insurance market has been largely stabilized due to the measures put in place, it still faces challenges. Significant legal fees can be imposed on insurers when increased claims amounts are awarded in court cases. This means legal fees have become a material addition to economic losses of claims and has seen insurers file for significant rate increases. Affordable insurance is more likely when most of the premiums paid by policyholders go to restoring economic losses rather than administrative and legal fees. Legislation passed in July 2019 to disincentivize assignment of benefits to third parties, which was a source of many legal cases, will go some way to addressing this issue but more needs to be done to reduce the level of litigation of claims. A mandatory out of court dispute settlement process may be one way forward.

Flood Risk

206. The most common and most damaging natural catastrophes in the U.S. are floods. Eight out of ten of the costliest natural disasters in the United States were from flooding. All 50 states have experienced flooding in the last five years. However, coastal floods caused by hurricanes or other storms have been the costliest.

207. Most flood insurance for homeowners is provided nationally by the NFIP up to a US\$250,000 limit with significant federal government financing. NFIP is administered by the Federal Emergency Management Agency. One of the reasons cited for the lack of a private flood insurance market is that NFIP rates are below sustainable levels. Biggert-Waters Flood Insurance Reform Act of 2012 (BW12) mandated actuarially acceptable rates to be charged by NFIP, to be phased in over many years. In March 2014, Congress passed the federal Homeowner Flood Insurance Affordability Act which stopped or slowed many of the price increases put in place by BW12. NFIP has used approximately US\$20 billion of its US\$30 billion in borrowing authority from the Treasury to cover its losses over time. In October 2017, the federal government canceled US\$16 billion of the debt of NFIP, so in the absence of this action NFIP debt would be US\$36 billion and above its borrowing authority. With regard to the private flood insurance market, according to NAIC data, in 2018, the private market represented 15 percent of the total flood insurance market (US\$4.2 billion). The private flood insurance market has been growing over the past few years, with

the \$644 million of direct premium written in 2018, representing a 9 percent increase over 2017 and a 71 percent increase over 2016.⁴⁶

208. NFIP is subject to reauthorization in Congress in order to be able to continue selling new flood insurance or renewing flood insurance. In the last two years there have been multiple short reauthorizations and NFIP is currently authorized to operate by selling and renewing policies until September 30, 2020. There have been periods where NFIP has not been authorized and could not continue selling cover with impacts on the mortgage lending and real estate markets in high risk zones.⁴⁷

209. Risk Rating 2.0 will introduce new risk-based pricing for NFIP and is scheduled to go into effect on October 1, 2021 for all NFIP policies across the country. Risk Rating 2.0 implements the overall policy of phasing out NFIP subsidies and it will not be able to increase rates faster than the existing limit for primary residences of 5–18 percent per year. Consequently, the move toward risk-based pricing will take time.

210. In early 2019, five federal regulatory agencies issued a joint rule to require institutions that offer federally backed mortgages to accept certain private flood insurance policies in addition to NFIP policies. State insurance regulators engaged with the federal regulatory agencies during development of the rule and states have undertaken regulatory and legislative action to streamline the process for private insurance carriers to write flood insurance in their states. State insurance regulators, through the NAIC, developed a best practices document for facilitating the private flood insurance market and the National Council of Insurance Legislators (NCOIL) is proposing a model law to reduce this regulatory burden. State regulators and insurers have been working together to assess flood risk and encourage further growth in the private flood insurance market.

Protection Gap

211. Insurance penetration has been shown to be important to economies exposed to natural catastrophe as those regions with high insurance penetration have been shown to be able to recover more quickly.⁴⁸ The United States has high insurance penetration by global standards, and this includes areas where there are higher risks of natural catastrophe. However, even with this high level of insurance penetration, some types of cover like flood insurance do not have the necessary penetration.

212. There is a direct correlation between the cost of insurance and the percentage of people who have insurance. The difference between total asset losses in a possible catastrophic

⁴⁶ NAIC, *Considerations for State Insurance Regulators in Building the Private Flood Insurance Market*, December 9, 2019.

⁴⁷ Special Flood Hazard Area (SFHA) or a Coastal Barrier Resources System (CBRS) or Otherwise Protected Area (OPA).

⁴⁸ N. Laframboise and B Loko, *Natural Disasters : Mitigating Impact, Managing Risks*, IMF Working Papers, 2012/245.

event and the possible insured asset losses is known as the ‘protection gap’. If this protection gap widens, then spillover risks into other financial sectors may occur as property that secures mortgage loans is not insured against losses from a catastrophe event.

213. It appears likely that a significant protection gap exists with regard to the peril of flood in the United States. Only a small fraction of properties outside Special Flood Hazard Area (SFHA)⁴⁹ have flood insurance yet a significant number of flood losses occur outside of designated flood zones. The take up rate for flood insurance in designated flood zones is also less than 50 percent according to a range of studies. Losses from flooding caused by Hurricane Harvey and Super Storm Sandy demonstrated that less than 20 percent of households that suffered losses from flooding had flood insurance. McKinsey & Company analysis of take up rates for flood insurance in areas most affected by the Hurricanes Harvey, Irma and Maria found that many affected homeowners lacked flood insurance. The study found that 80 percent of homeowners in affected areas of Texas, 60 percent of homeowners in affected areas of Florida and 99 percent of Puerto Rico homeowners lacked flood insurance.⁵⁰ As the cost of fire insurance increases in areas of high fire danger, a protection gap may emerge for wildfire perils as well.

214. Addressing the protection gap requires balancing the affordability of insurance with broad coverage of the perils. While risk-based pricing is an option, the resulting higher cost of cover runs counter to closing the protection gap. Here, mitigation becomes an important consideration to make cover more affordable. It would be most effective if authorities and the industry worked together to develop medium to long-term plans to ensure an orderly transition to greater coverage without disrupting the insurance market. Insurance regulators alone cannot address this issue and it needs significant cross-government interaction and coordination, particularly with respect to mitigation.

215. Some options to address the protection gap are:

- To limit the spillover of uninsured catastrophe risk into other financial sectors, the authorities could require more perils to be insured for a borrower to obtain a mortgage, even where risks are low. A pool of risks including perceived lower risks and high risks will be much more insurable, potentially reducing the cost of such cover for all through diversification.
- An expanding private flood insurance market will close the protection gap for flood insurance as it will be easier for consumers to obtain that insurance from the insurer which provides their homeowner’s coverage and the insurer will be incentivized to promote that cover if it is expected to be profitable. Therefore, encouragement of a private flood insurance market will likely increase the take up rate of flood cover. This will also smooth the path to future all perils policies as more insurers offer flood cover.

⁴⁹ SFHA are defined as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year.

⁵⁰ Insuring hurricanes: Perspectives, gaps and opportunities after 2017, McKinsey & Company, December 2017.

- Public bodies created to pool certain insurance risks may encourage private capital to provide cover for perils that are currently difficult to insure or subject to volatile pricing and availability. This has been the experience in Florida with the FHCF. The need for such bodies should be revisited as the private insurance and reinsurance market evolves.
- Appropriate standards for effective mitigation together with credible approaches to ensuring that mitigation has been put in place, are vital to making insurance of many perils affordable. In this regard, risk-based pricing of insurance can play a valuable role in incentivizing mitigation, and thereby creating communities more resilient to the increasing incidence and severity of natural catastrophes.

Appendix I. Status of the Recommendations of the 2015 FSAP

Recommendations	Status
<p>All states to adopt the joint statement of the objectives of insurance regulation and review their legislation to ensure that it is consistent with the statement (for example, that any mandate to promote or develop the insurance sector that could conflict with the statement is eliminated.)</p>	<p>State regulators have their regulatory objectives outlined on their respective websites. Several (17) state regulators have further clarified these objectives with a joint statement featured on their state insurance department website.</p> <p>See the following examples:</p> <p>https://insurance.utah.gov/licensee https://www.insurance.pa.gov/Companies/DoingBusiness/Pages/default.asp</p>
<p>States to reform arrangements for the appointment and dismissal of commissioners, providing for fixed terms for all, with dismissal only for prescribed causes and with publication of reasons.</p>	<p>Staff is not aware of active legislation in a state to change the method and duration of Commissioner appointments.</p>
<p>State governments to increase the independence of insurance departments in relation to resourcing, enabling them to determine budgets, set and retain relevant fees and assessment income to finance their work and employ appropriate staff as necessary to meet their objectives, subject to continued accountability to state legislatures.</p>	<p>State regulators do not believe there have been any significant limitations on their ability to enforce insurance laws and rules in the states because of a lack of specialized skills, either because of funding or staffing. With respect to funding and staffing, state regulators, through the NAIC, have established updated salary ranges and guidelines for financial analysis and examinations that are currently being implemented. In addition, state regulators, through the NAIC, have also established Analysis and Examination Peer Review programs to assess and improve examination practices. In addition, the NAIC continues to expand education and training offerings to state regulators through additional online courses and the establishment of new live training courses at the introductory and advanced levels. In addition, there is ongoing state leveraging of NAIC centralized resources in the areas of investment, actuarial and risk management expertise.</p>
<p>The NAIC to review the scope and operation of the accreditation program, including the potential value of an element of external assessment and a quality assurance element to accreditation work.</p>	<p>The F Committee undertook an accreditation modernization project which acknowledged that state insurance departments are meeting baseline standards and shifted the focus of accreditation reviews to place greater emphasis on substance and quality of work performed. Additional guidelines were also developed to emphasize and assess the role of department senior management. The modernization efforts went into effect in 2017 and the Committee continues to review its impact and any additional action needed.</p>

Recommendations	Status
States and the FRB to review their internal processes and procedures, including staff training, to ensure that supervisors understand the importance of sharing information, including proactive sharing, taking into consideration the need to ensure confidentiality.	<p>State insurance regulators maintain that they are able to protect from disclosure confidential information, including confidential information from other regulators; have in place requirements relating to professional secrecy including penalties for breaches of such requirements; and processes for protecting confidential information from attempts at disclosure by third parties.</p> <p>As of June 2019, there were 19 states that are signatories to the IAIS Multilateral Memorandum of Understanding (MMoU) with several more in the validation process and several more interested in the process of applying.</p>
States to improve consistency of the licensing requirements among the states both at high level and practical interpretation level.	The National Treatment and Coordination (E) Working Group developed Best Practices on how the state should review the following Applications; Primary, Redomestications, and Mergers and Acquisitions. The Best Practices provide recommendations for consistent documentation of the review and post-approval processes. In 2019, the NAIC is expected to adopt revisions to the Best Practices regarding Accreditation Standards for Primary, Redomestications and Form A filings corresponding to a referral to the Financial Regulation Standards and Accreditation (F) Committee to include the Part D Standards in the recommendation for a state's accreditation.
State regulators to adopt and implement the Corporate Governance Annual Disclosure Model Act and related regulation and handbooks promptly.	Forty-nine states have adopted the Corporate Governance Annual Disclosure Model Act and were required to adopt the model by January 1, 2020 when it became an accreditation requirement.
State regulators to require examiners and supervisors to state more clearly their observations of properness of key individuals at least in their internal documentations, so that appropriate regulatory actions can be followed up.	<p>Guidance was added to the 2017 Financial Condition Examiners Handbook to include a requirement for concluding on the suitability of Senior Management and the Board of Directors, both individually and as a whole. The conclusion should indicate whether any concerns were identified as a result of the assessment performed. If no concerns are found, the examiner is still expected to document a conclusion indicating no concerns noted.</p> <p>The Financial Analysis Handbook includes suitability considerations for both legal entities and groups, but no additional guidance has been developed at this point. Regulators will look again at updating the analysis/exam guidance on governance once all states have adopted the Corporate Governance Annual Disclosure Model Act, which includes suitability. At this point, forty-nine states have adopted the model and were required to adopt the model by January 1, 2020 when it became an accreditation requirement.</p>
States and the FRB to develop appropriate standards for insurance company governance, to be	States maintain that they have appropriate standards for insurance company governance, which are enhanced by the Corporate Governance Annual Disclosure Model Act describing the corporate governance structure, policies and practices in use. Forty-nine states

Recommendations	Status
applied at legal entity and/or group level and implement these through the model law process or FRB requirements.	have adopted the Model Act and were required to adopt the model by January 1, 2020 when it became an accreditation requirement.
After the introduction of the ORSA regime and requirement for an internal audit function, the states to review the range of their standards on risk management and control functions, assessing whether standards embedded in the ORSA requirement should be applied to a wider population of firms and whether to require at least the larger firms to have risk management, compliance and actuarial functions.	<p>States are continuing to gain knowledge and experience in reviewing and assessing the risk management practices of insurers that are subject to ORSA requirements. Insurers below the ORSA reporting threshold are required to file a Form F disclosure on enterprise risks on an annual basis and are subject to a review of their risk management practices during examination.</p> <p>At this point, regulators feel that this approach is appropriate and in line with proportionality considerations but will continue to monitor developments in this area.</p>
States to review the adequacy of reporting on qualitative issues such as material outsourcing and adopt the proposed new framework for corporate governance reporting.	<p>States regularly review reporting requirements having recently enhanced disclosures around the use of investment advisors.</p> <p>Further, forty-nine states have adopted the Corporate Governance Annual Disclosure Model Act describing the corporate governance structure, policies and practices in use and were required to adopt the model by January 1, 2020 when it became an accreditation requirement.</p>
States to review the scope for a higher frequency of examinations or increased targeted examinations between the regular full scope examinations, for the larger groups; and consult on whether they should remove the requirement for examination reports to be published.	<p>Guidance was adopted into the 2016 Financial Condition Examiners Handbook related to interim examination work, which allows the Department increased flexibility to conduct examination work during the period between full-scope examinations. Under this concept, work performed during the interim period can be leveraged to support the full scope examination. States are now beginning to implement this practice at a select group of larger, more-complex insurers. States also continue to conduct limited-scope examinations as needed to address issues that arise.</p> <p>State insurance regulators consulted regarding the appropriateness of public exam reports and determined that the practice should continue, albeit with some clarifications. As such, additional guidance was added to the Handbook in 2015 to clarify the purpose and intent of the public report, including the following:</p> <p>“This examination report includes significant findings of fact, as mentioned in the [Insert Examination Law Statutory Citation] and general information about the insurer and its financial condition. There may be other items identified during the examination that, due to their</p>

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	<p>nature (e.g., subjective conclusions, proprietary information, etc.), are not included within the examination report but separately communicated to other regulators and/or the company.”</p>
<p>States to review the scope for more coordinated multistate market conduct examinations</p>	<p>Ongoing work of the NAIC Market Regulation and Consumer Affairs (D) Committee and Market Actions (D) working Group. The Market Actions (D) Working Group has Policies and Procedures, which U.S. regulators use to help coordinate collaborative actions. This includes each U.S. jurisdiction having a Collaborative Action Designees who is responsible for the coordination of market conduct actions.</p> <p>The NAIC maintains a Market Initiative Tracking System, which provides U.S. regulators with a method of tracking and sharing information concerning the actions they take in investigating the business practices of a company, group of companies or a general issue.</p>
<p>States to work closely with federal and international regulators, and resolution authorities to improve resolvability of large and complex insurance groups.</p>	<p>Since the 2015 FSAP, the NAIC Receivership and Insolvency (E) Task Force (RITF) considered possible enhancements to the U.S. receivership regime and the states' receivership laws and practices based on international supervisory and advisory developments.</p> <p>With regard to interstate relations, in 2017, the Financial Condition (E) Committee encouraged via memorandum to the state insurance departments to consider adopting certain provisions of Insurer Receivership Model Act (#555, “IRMA”) that address the recognition of receivership stays, injunctions, and reciprocity, in order to enhance interstate relations, judicial economy and predictability.</p> <p>With regard to non-regulated entities, updates were adopted in the Financial Condition Examiners Handbook and the Financial Analysis Handbook to guide examiners and analysts to review affiliate agreements for receivership provisions outlined in the Insurance Holding Company System Model Act (#440) and Regulation (#450).</p> <p>With regard to pre-receivership planning, the Receiver’s Handbook for Insurance Company Insolvencies was updated in 2016 to include guidance related items for SIFI recovery and resolution planning as part of pre-takeover planning. The Troubled Insurance Company Handbook (regulator only) was updated in 2019 for similar guidance on pre-receivership planning</p> <p>With regard to the NAIC Macro-Prudential Initiative (MPI), in December 2017, the RITF was requested by the Financial Stability (EX) Task Force to evaluate best practices regarding areas identified as important to financial stability within the U.S. recovery and resolution regime</p>
<p>State regulators to analyze the interaction of the web of retrocessions and the</p>	<p>NAIC maintains that the credit for reinsurance laws and regulations, statutory accounting and financial reporting requirements (including all current reinsurance assumptions and cessions) and procedures applicable to reinsurance transactions and retrocessions serve to</p>

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<p>group's or holding's structure in more depth.</p>	<p>provide regulators with an effective method of monitoring the reinsurance activities of U.S. companies. The Insurance Holding Company System Regulatory Act (#440) and Insurance Holding Company System Model Regulation (#450) allow states to regulate transactions between insurers and other affiliated entities. The models include provisions relating to reinsurance between affiliated companies with common ownership or control. Pursuant to the NAIC Financial Analysis Handbook, state insurance regulators analyze many key points and prospective risk considerations with respect to a company's reinsurance agreements and overall reinsurance program, including but not limited to consideration of the following items:</p> <ul style="list-style-type: none"> • whether the insurer has a reinsurance program in place that adequately supports its risk profile; • whether reinsurance between affiliates involves any unusual shifting of risk from one affiliate to another; and • whether pyramiding may be occurring that could cause significant collectability risk to the insurer. <p>The NAIC Financial Analysis Handbook further provides that the fundamental issue involved with evaluating collectability is an assessment of the financial stability of the underlying reinsurers, and, if applicable, specific retrocessionaries involved throughout the chain of reinsurance. To evaluate the collectability of reinsurance recoverables, the analyst should consider the need to collect as much financial information as possible about the reinsurers, including various regulatory and governmental filings, rating agency reports, and financial analyses available from industry analysts. Pursuant to the NAIC Financial Analysis Handbook, a state insurance regulator may examine questionable reinsurance contracts; i.e., the insurer may participate in significant third-party reinsurance contracts that distort its surplus position, mask true financial performance, or raise questions related to risk-transfer and ongoing obligations.</p> <p>With the adoption of the NAIC Risk Management and ORSA Model Act (#505), insurers also provide information to regulators regarding reinsurance and risk mitigation within the ORSA filing. Analysts will consider whether an insurer's liquidity has been negatively impacted by any material changes in (i) cash inflows as a result of changes in reinsurance, and/or (ii) cash outflows as a result of changes in reinsurance recoverable. Insurers also provide information to regulators regarding cash flow and liquidity within the ORSA filing.</p>
<p>The NAIC to continue to pursue the update of the valuation methodology for life insurers based on PBR; captives and insurers have to use the same valuation</p>	<p>All states have adopted the Valuation Manual and life PBR. Life PBR was optional during a 3-year transition period and but is now mandatory for all non-exemption companies for year-end December 31, 2020. A total of 53 companies implemented PBR during the optional transition period. PBR requires companies to file a PBR Actuarial Report annually providing details on their PBR reserves, including asset and liability</p>

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<p>requirements; the valuation standard is applied consistently across all states; the valuation standard is consistently defined taking into account how assets that cover liabilities are actually managed; the valuation standard is adapted such that it captures conservatism explicitly in a margin over current estimate; state regulators authorities ensure that they have sufficient expertise in-house to cope with principles-based approaches to reserving.</p>	<p>assumptions and valuation methodology. To help ensure consistency in application, the Valuation Analysis Working Group (VAWG) was formed to support states in their review of PBR and uniformly address questions and issues that arise. The VAWG reviewed all of the 2017 and 2018 reports, documented the results in a paper distributed to companies and regulators, and recommended clarifying amendments to the Valuation Manual where necessary to ensure consistent interpretation which have been adopted.</p> <p>Ceding insurers engaging in XXX/AXXX reserve financing arrangements are required to hold a level of reserves (the "Required Level of Primary Security") that must be supported by certain defined assets ("Primary Security"). The level of reserves is to be calculated by a method referred to as the "Actuarial Method," which is aligned with Valuation Manual reserve requirements.</p> <p>Valuation Manual requirements allow for the use of company experience accompanied by a prudent margin estimate. The extent to which a company is able to rely on its own experience is dependent upon credibility of that experience.</p> <p>In addition to the support available from the VAWG, regulatory authorities have access to online PBR training to increase staff competencies. Additionally, training is available from the American Academy of Actuaries through their PBR Boot Camps, available to regulators and industry.</p>
<p>Identical investment rules and limits to be imposed on affiliated captives to which insurance liabilities are ceded to</p>	<p>States perform holding company analysis which can consider such risk if the lead state considers asset risk in the area for non-insurers as higher. Furthermore, the proposed GCC is intended to address this risk in a more holistic and cost beneficial way.</p>
<p>State regulators in cooperation with the NAIC, FRB and FIO to continue to analyze investment activities both at legal entity level and group level and address any regulatory arbitrage by improving consistency of investment requirements among states and federal regulations.</p>	<p>The NAIC monitors major market and portfolio developments through its Capital Markets group. The FIO continues to monitor these activities as well through its annual reports and other mechanisms.</p>
<p>State regulators and the NAIC to consider requiring the ORSA for all insurers, proportionate to the size and complexity of the firms.</p>	<p>States are continuing to gain knowledge and experience in reviewing and assessing the risk management practices of insurers that are subject to ORSA requirements. Insurers below the ORSA reporting threshold are required to file a Form F disclosure on enterprise risks on an annual basis and are subject to a review of their risk management</p>

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	practices during examination. At this point, regulators feel that this approach is appropriate and in line with proportionality considerations but will continue to monitor developments in this area.
State regulators and the NAIC to develop an RBC requirement for financial guaranty insurers, taking into account their specific exposures to risk.	While some consideration was given to modifying the regulatory framework for financial guaranty insurers following the financial crisis, the authorities believe that remaining insurers are more heavily regulated through means beyond RBC and developing such was never considered cost beneficial under the current market. Regulators are developing an RBC for mortgage guaranty insurers.
State regulators and the NAIC to develop an approach that would allow RBC to capture intra-group transactions (IGTs).	IGTs are currently addressed by each state on a transaction by transaction basis under their equivalent authority that exists with Section 5 of the NAIC Holding Company Act.
State regulators, the NAIC and the FRB to coordinate to develop common or consistent capital requirements to avoid regulatory arbitrage between the two capital requirements.	<p>NAIC is developing its capital calculation for U.S.-based groups, coordinated with the FRB, as appropriate.</p> <p>The FRB is developing a separate framework for its supervised entities – BBA</p>
A uniform approach to the regulation of larger business entities, including major commercial lines brokers be developed.	The national uniform and reciprocal licensing standards apply to all licensed insurance producers, including major commercial lines brokers. Any specific issues related to commercial lines brokers will be taken under advisement and considered if appropriate.
Producers in all states be required to make disclosures to customers of the status under which they are doing business, including which insurance companies have appointed them.	The NAIC adopted a revised Suitability in Annuity Transactions Model Regulation (#275) that includes a best interest standard of conduct for producers and insurers. With respect to a recommendation to a consumer to purchase an annuity, the standard imposes a disclosure obligation, care obligation, conflict of interest obligation, documentation obligation and a supervision system requirement to ensure compliance with the best interest standard.
States to further develop market conduct requirements that address the risks of unfair policyholder treatment across the range of insurance products and include requirements to treat customers fairly, to act with due skill and diligence, give suitable advice and to manage conflicts of interest.	<p>Authorities maintain that the U.S. insurance regulatory system has well-established market conduct requirements which prohibit the unfair treatment of insurance consumers and policyholders and specific suitability standards for annuity transactions.</p> <p>The NAIC adopted a revised Suitability in Annuity Transactions Model Regulation (#275) that includes a best interest standard of conduct for producers and insurers. The standard imposes a disclosure obligation, care obligation, conflict of interest obligation, documentation obligation and a supervision system requirement to ensure compliance with the best interest standard.</p>

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<p>States to develop a risk-focused surveillance framework specifically for market conduct to support proactive, risk-based supervision of market conduct, covering both the supervision of individual firms and of issues that arise across the market.</p>	<p>The U.S. regulatory system continues to expand the use of the Market Conduct Annual Statement for proactive, risk focused surveillance. The Market Conduct Annual Statement is used to collect claims and underwriting data on the Private Passenger Auto, Homeowners, Life and Annuity, LTC, Health, and Lender-Placed Home and Auto lines of business.</p> <p>The Market Actions (D) Working Group’s National Analysis Project reviews nationally significant companies with potential market conduct issues. Based on complaints, regulatory actions, premium, market share and other ratios, U.S. insurance regulators, with assistance from NAIC staff, develop a confidential list of potential companies ranked according to level of possible concern.</p>
<p>States to review staffing and resourcing models for market conduct regulation of insurers and producers, including scope to undertake more examination work using employees rather than consultants (see also ICP2 on resources).</p>	<p>The NAIC Market Regulation and Consumer Affairs (D) Committee has developed draft standards for a Voluntary Market Regulation Certification Program. Under the draft requirements, a state insurance department must have either, or a combination of:</p> <ul style="list-style-type: none"> • Its own staff sufficient to perform market regulation work, including market analysis, examinations and other continuum actions. • Statutory authority sufficient to engage competent contractors on an as-needed basis and appropriate department staff to oversee and manage such contractors. • A pilot program involving 18 jurisdictions has been completed. The draft standards are being revised to incorporate suggestions from the pilot program.
<p>States to continue to give consideration to developing an accreditation program for market conduct work (initial discussions have already been held), building on the work of the MAWG and on the comprehensive Market Regulation Handbook.</p>	<p>The NAIC Market Regulation and Consumer Affairs (D) Committee has developed draft standards for a Voluntary Market Regulation Certification Program. The draft program sets forth 12 standards over the following five categories: statutory authority, use of NAIC Market Regulation Handbook, resources and qualifications of staffing, participation in NAIC Market Information Systems and Market Conduct Annual Statement, and interstate collaboration.</p>
<p>Insurance groups and insurance holding systems to be required to submit financial filings also on a consolidated level.</p>	<p>The NAIC Group Solvency Issues Working Group considered such changes but determined that doing so was not cost beneficial regulation. Authorities maintain that the NAICs proposed GCC represents a mixed accounting model consolidation of available and required capital (see further discussion in the main text).</p>
<p>To facilitate active and effective information sharing on AML/CFT, FinCEN, state regulators and the NAIC to continue to expand the network of MOUs and speedily implement the ongoing project for</p>	<p>NAIC and state regulators continue to work with FinCEN on exchanging relevant information where appropriate.</p>

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electronic information exchange.	
State regulators to obtain direct legal authority over the insurance holding company (although this is beyond the current ICP).	As of June 2017, all 50 states, the District of Columbia and Puerto Rico, have adopted the updated NAIC model holding company act enhancing state insurance regulators' group supervisory authorities. Additional updates to the NAIC model holding company act relating to powers of a group-wide supervisor (GWS) of an IAIG have been adopted in 48 states and were required to be adopted in all accredited U.S. states and jurisdictions by January 1, 2020. States that have not adopted the model must demonstrate that they are able to achieve the same objective through other means.
Capital standards be put in place in a consistent manner, for groups supervised by state regulators and by the FRB.	The NAIC is currently in the process of developing a GCC which is based upon an aggregation and elimination method. This method aggregates the capital requirements for regulated entities and capital factors for non-regulated entities that have a material risk to the insurance group. The FRB is developing a separate BBA.
Potential conflicts between the objectives of different supervisory authorities be addressed.	State regulators believe that they have the tools and resources to address any potential conflicts of different supervisory authorities should they arise.
A stress testing regime for insurance groups and holding companies be implemented.	The GCC expects to consider review or development of proposals for stress testing. The current focus is on the GCC itself, with discussion on stress testing likely beginning in 2020.
Consolidated financial statements be published by all insurance groups.	The NAIC Group Solvency Issues Working Group considered such changes but determined that doing so was not cost beneficial regulation. However, note the NAICs proposed GCC represents a mixed accounting model consolidation of available and required capital.
Investment activities at the group level be carefully monitored to address potential regulatory arbitrage and search for yield at the group level.	The Financial Analysis Handbook includes guidance and procedures related to group analysis of credit, market and liquidity risks as part of an assessment of the group's investment portfolio. A change from a checklist approach to group analysis to a risk-focused approach was implemented beginning with annual 2015 analysis, allowing more flexibility in addressing risks identified. However, analysts are limited to the amount of investment detail they receive in holding companies' filings as compared to statutory annual statements.
Different authorities and offices to work closer together on macroprudential issues.	The NAIC Financial Stability (EX) Task Force is working to enhance the macroprudential toolkit of state insurance regulators. This includes efforts in the NAIC State Ahead strategic initiative to utilize more modern technologies in developing quantitative surveillance and analysis tools as well as policy measures included in the MPI. The MPI addresses four focus areas: developing a liquidity stress testing framework for material life insurance groups, including enhancing disclosures to better assess products with higher liquidity risk potential; capital stress testing to be addressed as part of the NAIC GCC; reviewing existing recovery and resolution processes and disclosures to

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	identify any enhancement needs; and determining if there are material gaps in existing counterparty exposure disclosures. State regulators through FSOC, will work to ensure these initiatives dovetail with the developing system-wide macroprudential surveillance processes such as the activities-based approach guidance for FSOC.
The representation of the insurance sector be brought into line with that for other sectors on FSOC.	Currently state insurance regulators have non-voting membership of FSOC unlike regulators in other sectors. The FIO Director is a non-voting member of the FSOC. The NAIC supports efforts to provide state insurance regulators a vote on FSOC as well as more robust consultation among FSOC and state insurance regulators.
States and the FRB review how to develop stronger cooperation between U.S. insurance supervisors, which could include increased joint working (e.g., onsite work), secondments and appropriate training; and the FIO and NAIC work more closely together, for example to develop a shared view on priorities for modernization of insurance regulation.	<p>The FRB is no longer involved in the colleges for those companies released from SIFI designations. States have enhanced coordinating risk assessments and have formed relevant subgroups (crisis management) for IAIGs.</p> <p>Relevant experts as well as principals from the NAIC, Federal Reserve, and the FIO regularly coordinate including on domestic priorities and international standard setting, (involving the work of the IAIS, FSB, G20 and OECD as appropriate.) This includes sharing drafting suggestions and discussing high level policy priorities. FRB and relevant state departments of insurance coordinate on firms they jointly supervise, including sharing exam materials and coordinating onsite activities. FIO serves as the source of insurance expertise in the federal government, and regularly coordinates with state and federal agencies on a variety of issues related to insurance regulation.</p>
State regulators and FRB to set objectives for colleges to move to the next level of cooperation, including potentially the development of a shared group risk assessment and joint working; and consider whether this may require sub-groups of members or colleges to meet in a core group format to promote efficient working.	While the states hold colleges for IAIGs, currently groups where both the FRB and states are supervisors are not IAIGs, so the supervisory colleges are not held as regularly/formally in those instances. See above.
States to fully and effectively incorporate the state regulators' collective expectations on international supervisory colleges into the accreditation program.	States' collective expectations relating to international supervisory colleges are outlined in the Financial Analysis Handbook. States convene a Supervisory Colleges best practices meeting at every national meeting (three times a year) to further discuss and refine such best practices.
The authorities to continue their work in relation to crisis	The NAIC Insurance Holding Company System Model Act (#440) Section 7 provides the commissioner with the authority to develop crisis

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<p>preparedness, giving priority to building on the work of the CMGs (and current work at the FSB and the IAIS) to develop their planning for a crisis and resolution of a major cross-border group. Supervisors should ensure that all internationally active groups have developed contingency plans and are able to deliver information that may be required in a crisis in a timely fashion.</p>	<p>management plans as part of supervisory colleges. Further, Model 440 Section 7.1, provides for authority for the commissioner to act as the group-wide supervisor of internationally active insurance groups and engage in group-wide supervision activities as outlined in the model. Section 7.0 is a Part A Accreditation standard and Section 7.1 of the Model became a Part A Accreditation standard effective January 1, 2020.</p> <p>Additionally, the NAIC Financial Analysis Handbook contains guidance and a template for a crisis management plan. This holding company authority and guidance provide state insurance regulators with the tools and flexibility to discuss the necessity for crisis management plans within supervisory colleges and/or CMGs groups and to make the determination to develop such plans on a case-by-case basis as deemed appropriate.</p>