**Notice and Explanation of the Basis for the
Financial Stability Oversight Council's Rescission of Its Determination
Regarding American International Group, Inc. (AIG)**

TABLE OF CONTENTS

***Note: Redactions of confidential information submitted to the Council
by AIG or its regulators are indicated by "[•]"***

1. OVERVIEW

Section 113(d) of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) requires the Financial Stability Oversight Council (Council) not less frequently than annually to reevaluate its determination that material financial distress at AIG could pose a threat to U.S. financial stability and that AIG shall be subject to supervision by the Board of Governors of the Federal Reserve System (Board of Governors) and enhanced prudential standards. In conducting its analysis of AIG, the Council relied on the information and materials cited herein, including written materials submitted by AIG, and consultations with the New York Department of Financial Services, the Texas Department of Insurance, the Pennsylvania Insurance Department, the Federal Reserve Bank of New York, the Board of Governors, and the Federal Deposit Insurance Corporation (FDIC). For the reasons described herein, the Council has rescinded its final determination that material financial distress at AIG could pose a threat to U.S. financial stability and that AIG shall be supervised by the Board of Governors and be subject to enhanced prudential standards.

2. INTRODUCTION

2.1 Annual Reevaluation Process

Pursuant to section 113 of the Dodd-Frank Act, on July 8, 2013, the Council made a final determination that material financial distress at AIG could pose a threat to U.S. financial stability and that AIG shall be subject to supervision by the Board of Governors and enhanced prudential standards. The Council also determined that AIG was predominantly engaged in financial activities, and therefore eligible for a final Council determination.[1] The Council is required to review a final determination not less frequently than annually and rescind any determination if the Council, by a vote of not fewer than two-thirds of the voting members then serving, including an affirmative vote by the Chairperson of the Council, determines that the nonbank financial company no longer meets the statutory standards for a determination.[2]

This reevaluation was conducted in accordance with the Dodd-Frank Act, the Council's rule and interpretive guidance regarding nonbank financial company determinations (Rule and

[1] The Council is authorized to determine that a "nonbank financial company" will be subject to supervision by the Board of Governors and prudential standards if either of the two statutory standards established in section 113 of the Dodd-Frank Act is satisfied. A "nonbank financial company" includes a company that is incorporated or organized under the laws of the United States or any state and is predominantly engaged in financial activities. 12 U.S.C. § 5311(a)(4)(B). A company is "predominantly engaged in financial activities" if at least 85 percent of the company's and its subsidiaries' annual gross revenues are derived from, or at least 85 percent of the company's and its subsidiaries' consolidated assets are related to, "activities that are financial in nature" as defined in section 4(k) of the Bank Holding Company Act of 1956, as amended. *See* Dodd-Frank Act section 102(a)(6), 12 U.S.C. § 5311(a)(6); *see also* 12 C.F.R. part 242.

[2] Dodd-Frank Act section 113(d), 12 U.S.C. § 5323(d).

Interpretive Guidance),[3] and the Council's Supplemental Procedures Relating to Nonbank Financial Company Determinations (Supplemental Procedures).[4]

On March 18, 2016, the Council sent a letter to AIG informing the company that the Council was conducting its annual reevaluation of AIG. AIG was notified that it could request to meet with staff of the Nonbank Financial Company Designations Committee (Nonbank Designations Committee) to discuss the scope and process for the review and to present information regarding any change that may be relevant to the threat the company could pose to financial stability. AIG was asked to submit any written materials to the Council to contest the determination by May 2, 2016. At AIG's request this deadline was extended to August 3, 2016 and then again to November 1; in requesting the second extension to November 1, AIG expressly waived any right it might have had for the reevaluation to be completed in 2016. On November 1, 2016, AIG notified the Council that it was not contesting the Council's determination. On April 17, 2017, the Office of Financial Research, on behalf of the Council, sent a letter to AIG requesting certain additional nonpublic information from the company that would assist in the Council's reevaluation analysis. Between May 25 and July 24, 2017, AIG submitted its responses to the Council's request. On July 17, 2017, AIG submitted additional materials in which the company requested that the Council rescind its determination.

2.2 Summary of Council Basis

In making a final determination with respect to AIG in 2013, the Council evaluated the extent to which material financial distress at AIG could be transmitted to other financial firms and markets and thereby pose a threat to U.S. financial stability through the following three transmission channels: (1) the exposures of creditors, counterparties, investors, and other market participants to AIG; (2) the liquidation of assets by AIG, which could trigger a fall in asset prices and thereby could significantly disrupt trading or funding in key markets or cause significant losses or funding problems for other firms with similar holdings; and (3) the inability or unwillingness of AIG to provide a critical function or service relied upon by market participants and for which there are no ready substitutes. The Council considered each of the statutory factors set forth in section 113 of the Dodd-Frank Act in conducting the transmission channel analysis.[5] The Explanation of the Basis of the Financial Stability Oversight Council's Proposed Determination that Material Financial Distress at AIG Could Pose a Threat to U.S. Financial Stability and that AIG Should be Supervised by the Board of Governors of the Federal Reserve System and Subject to Prudential Standards, approved by the Council on June 3, 2013 (Council Basis), contains a detailed explanation of the Council's basis for its determination regarding AIG.[6]

---

[3] Council, Authority to Require Supervision and Regulation of Certain Nonbank Financial Companies, 12 C.F.R. part 1310.
[4] Council, Supplemental Procedures (February 4, 2015), available at https://www.treasury.gov/initiatives/fsoc/designations/Documents/Supplemental%20Procedures%20Related%20to%20Nonbank%20Financial%20Company%20Determinations%20-%20February%202015.pdf.
[5] *See* 12 C.F.R. part 1310.
[6] The Council provided AIG with a detailed explanation of the basis of the Council's proposed determination regarding the company in June 2013. Because AIG did not contest the Council's proposed determination, at the time of the Council's final determination the Council approved and sent to AIG only the public explanation of the

The Council determined that the threat to U.S. financial stability posed by AIG's material financial distress arose primarily from the exposure and asset liquidation transmission channels, although the Council also concluded that the critical function channel could exacerbate the extent to which the company's material financial distress could be transmitted to the financial system and the broader economy. The Council also concluded that AIG's complexity and the potential difficulty to resolve AIG could exacerbate the risks posed by AIG's material financial distress across all three transmission channels.

In evaluating the potential threat that material financial distress at AIG could pose to U.S. financial stability through the exposure transmission channel, the Council analyzed the exposures of AIG's creditors, counterparties, investors, and other market participants to AIG. The Council determined that significant losses to large financial intermediaries exposed to AIG could impair financial intermediation or financial market functioning sufficiently and severely enough to significantly impair the broader economy and thereby could pose a threat to U.S. financial stability.

In considering the potential threat that material financial distress at AIG could pose to U.S. financial stability through the asset liquidation transmission channel, the Council analyzed the extent to which AIG held financial assets that, if liquidated quickly, could significantly disrupt financial markets or the broader economy. The Council concluded that a rapid liquidation of AIG's life insurance and annuity liabilities could strain AIG's liquidity resources and compel the company to sell assets in order to satisfy its obligations. The Council found that because AIG had a limited base of highly liquid assets, it could be forced to liquidate a substantial portion of its large portfolio of relatively illiquid corporate and foreign bonds, as well as asset-backed securities, and that this asset liquidation could have disruptive effects on the broader financial markets and impair financial market functioning.[7] The Council also found that if AIG were to suffer material financial distress in the context of corresponding doubt about the ability of the company to satisfy its obligations, approximately **[•]** in annuity contracts and **[•]** in life insurance cash values could be easily withdrawn through surrenders or policy loan provisions. The Council determined that if the company's financial distress were sufficiently severe, products that are susceptible to early withdrawals may be withdrawn regardless of the size of associated surrender charges or tax penalties.[8]

The Council also concluded that widespread withdrawals by AIG policyholders and the associated deterioration of AIG's financial condition could cause financial contagion, as the negative sentiment and uncertainty associated with material financial distress at AIG spread to other insurers. In particular, the Council stated that if AIG's distress causes concern among policyholders at other insurers, those insurers could also experience unanticipated increases in

---

basis of the Council's final determination. As a result, the analysis herein generally refers to the Council's nonpublic explanation of the basis for the proposed determination regarding AIG, which was part of the administrative record for the Council's final determination regarding the company.

[7] Council Basis, p. 4.

[8] Council Basis, p. 4.

surrender activity that strains liquidity resources, potentially impairing the financial condition of multiple insurers across the industry.[9]

The written explanation of the basis for the Council's proposed determination regarding AIG contains the Council's full analysis.

2.3 Summary of Annual Reevaluation Conclusion

The Council has identified changes since the Council's final determination regarding AIG that materially affect the Council's conclusions with respect to the extent to which AIG's material financial distress could pose a threat to U.S. financial stability. Some of these changes are the direct result of steps AIG has taken that have reduced the potential effects of the company's distress on other firms and markets. For example, AIG has reduced the amounts of its total debt outstanding, short-term debt, derivatives, securities lending, repurchase agreements, and total assets. Further, additional analyses conducted for purposes of this reevaluation, including additional consideration of the effects of incentives and disincentives for policyholders to surrender their life insurance policies and annuities (including analysis of historical evidence of retail and institutional investor behavior), indicates that there is not a significant risk that a forced asset liquidation by AIG would disrupt market functioning and thereby pose a threat to U.S. financial stability.

As described in sections 5.2 and 5.4, capital markets exposures to AIG have decreased, and the company has sold certain businesses in which it held dominant market shares, rendering the company less interconnected with other financial institutions and smaller in scope and size. By contrast, AIG has outstanding **[•]** of life insurance and annuity products that allow policyholders to withdraw cash from the company upon demand, producing liquidity risk at the company and creating the potential for AIG to be forced rapidly to liquidate assets in the event of its material financial distress. While this liquidity risk is material, the Council's analysis, set forth in section 5.3, indicates that the level of forced asset sales by AIG in the event of its material financial distress may be lower than previously contemplated, which decreases the risk that these asset sales could disrupt key markets or cause funding problems at other firms.

AIG is notably different from the company as it existed leading up to the financial crisis. Many of the changes at AIG since 2007 occurred before the Council's determination regarding the company; however, in addition to the changes noted above that have occurred at AIG since the Council's determination, the company is following a corporate strategy not to engage in the types of activities, including extensive capital markets activities, that were the primary source of its risks before the financial crisis.

Following are the Council's key conclusions regarding the potential for material financial distress at AIG to pose a threat to U.S. financial stability through the exposure, asset liquidation, and critical function or service transmission channels.

---

[9] Council Basis, p. 4.

With respect to the exposure transmission channel:

- Direct and indirect capital markets exposures to AIG have decreased substantially since 2012 as AIG has exited certain business lines and transaction types. In particular, AIG has reduced the amounts of its total debt outstanding, short-term debt, derivatives, securities lending, repurchase agreements, and total assets, in some cases significantly.
- Exposures of institutional policyholders arising from AIG's general account[10] insurance products are **[•]**. AIG's stable value wrap products increase the potential risks that AIG's material financial distress could pose to certain counterparties but do not appear to contribute significantly to the threat that the company's distress could pose to U.S. financial stability because of the nature of the product and the diffuse market participants who would ultimately bear these losses.
- Exposures of retail policyholders arising from AIG's general account insurance products are roughly similar to 2012 but do not contribute significantly to the risk that material financial distress at AIG could pose to U.S. financial stability through the exposure transmission channel. Additional analysis, described below, has been conducted for purposes of this reevaluation regarding the potential effects of these liabilities on state guaranty associations, including the effects of factors that would reduce the guaranty associations' obligations in the event of the insolvency of AIG's insurance subsidiaries.

With respect to the asset liquidation transmission channel:

- AIG has outstanding **[•]** of life insurance and annuity products that allow policyholders to withdraw cash from the company upon demand. AIG's liquidity risk arises primarily from the potential for holders of annuities issued by AIG to withdraw their policies. The amount of general account liabilities associated with these annuities is **[•]** than in 2012. AIG has **[•]** of annuities that can be surrendered for **[•]** in cash upon demand by policyholders, compared to **[•]** in 2012.
- Counterparty terminations of their capital markets transactions with AIG—including repurchase agreements, securities lending, and derivatives arrangements—would affect the volume of AIG's forced asset sales; however, AIG's total liabilities arising from these activities are small compared to the liabilities arising from its withdrawable life insurance and annuity products.

---

[10] A life insurance company's invested assets are held in two types of accounts: the general account and one or more separate accounts. An insurer's general account assets are obligated to pay claims arising from its insurance and annuity policies, debt, derivatives, and other liabilities. Separate accounts consist of funds held by a life insurance company that are maintained separately from the insurer's general assets. Assets in the general account support contractual obligations providing guaranteed benefits and are subject to claims by the insurer's creditors in the event the insurer becomes insolvent. By contrast, for separate accounts, the investment risk is passed through to the contract holder; the income, gains, or losses (realized or unrealized) from assets allocated to the separate account are credited to or charged against the separate account. Therefore, non-guaranteed separate account liabilities are not generally exposed to the insurer's credit risk because they are insulated from claims of creditors of the insurance company.

- With respect to AIG's assets that could be liquidated in the event of increased liquidity needs at AIG, the company's investment portfolio is **[•]**. AIG currently holds **[•]** of highly liquid assets and an additional **[•]** of investment-grade bonds, compared to **[•]** in 2012.
- A fire sale impact analysis suggests that relative to other large financial institutions, the market impact of a downward shock to the net worth of AIG has decreased since 2012, largely due to AIG's decrease in size. As of December 31, 2016, AIG ranked 11th for an equity shock, ranking it near PNC and Capital One, and 19th for an asset shock, ranking it near HSBC and Credit Suisse.
- Additional consideration of the effects of incentives and disincentives for retail policyholders to surrender policies, including analysis of historical evidence of retail and institutional investor behavior, indicate that there is not a significant risk that a forced asset liquidation by AIG would disrupt trading in key markets or cause significant losses or funding problems for other firms with similar holdings.

With respect to the critical function or service transmission channel:

- AIG is a market leader in commercial insurance, including in the excess and surplus market. However, its market share has declined since the Council's determination regarding AIG. Exceptions to this decline include the markets for directors and officers (D&O) and errors and omissions (E&O) insurance, but companies that lose coverage would still continue to operate while they worked to obtain a new insurance provider.
- AIG has exited two important financial markets by selling International Lease Finance Corporation (a leading provider of commercial aircraft financing) and United Guaranty Corporation (a leading provider of private mortgage insurance). The divestiture of United Guaranty Corporation in particular reduced the risks AIG's material financial distress could pose through the critical function or service transmission channel.

AIG has reduced its multi-jurisdictional operations, simplified its legal structure, and reduced its size and global footprint, but AIG continues to be a complex, highly interconnected organization, and there are significant obstacles to its orderly resolution. However, in light of the conclusions regarding the transmission channel analysis, the difficulty to resolve AIG and the potential for the company's disorderly resolution do not lead to a conclusion that AIG's material financial distress could pose a threat to U.S. financial stability.

For the reasons described herein, the Council has rescinded its final determination that material financial distress at AIG could pose a threat to U.S. financial stability and that AIG shall be supervised by the Board of Governors and be subject to enhanced prudential standards.

2.4 Summary of AIG's Submission to the Council

On November 1, 2016, AIG submitted a response to the Council's notification regarding the annual reevaluation of the company. This submission (AIG Submission) indicated that AIG was not formally requesting the Council to rescind the designation, but it included information that AIG stated supports the position that the company should not be designated. On July 17, 2017, AIG submitted additional materials in which the company requested that the Council rescind its determination and provided additional detail on changes at the company since 2007, divestitures, comparisons to peer financial institutions, and an overview of AIG's regulatory oversight other than Federal Reserve supervision. The AIG Submission focused on a description of changes to its business since the 2008 financial crisis and since the time of the Council's final determination. In particular, the AIG Submission stated that since the financial crisis the company has:

- de-risked its business activities,
- de-leveraged its balance sheet,
- reduced its size and footprint,
- sold operations and businesses,
- simplified its operations and structure, and
- reduced its complexity and interconnectedness with other large financial institutions.

AIG stated that the extent to which material financial distress at AIG could be transmitted to the broader economy through the exposure, asset liquidation, and critical function or service transmission channels has been reduced. For example, the AIG Submission indicated that the company's focus on traditional insurance activities and its wind-down of non-core businesses—such as the aircraft leasing and mortgage guaranty businesses (International Lease Finance Corporation (ILFC) and United Guaranty Corporation, respectively)—have reduced its risk. The AIG Submission also stated that at its current size, the company's asset size and composition is more in line with insurance companies that the Council did not advance for designation than it is with insurance companies the Council has designated. In addition, the AIG Submission included summary statistics showing a significant reduction in exposures of creditors, counterparties, investors, and other market participants to AIG, a decrease in AIG's use of leverage, and an improvement in the company's liability composition.

The AIG Submission noted developments in the extent of regulatory scrutiny of the company, highlighting the National Association of Insurance Commissioners (NAIC) Solvency Modernization Initiative, the evolution of supervisory colleges, and a number of other developments, including implementation of the Own Risk and Solvency Assessment tool. The AIG Submission also stated that the district court's opinion in *MetLife, Inc. v. Financial Stability Oversight Council*[11] "identified several flaws in the Council's designation process which are equally applicable to its designation of AIG."[12]

[11] 177 F.Supp.3d 219 (D.D.C. Mar. 30, 2016).

[12] The district court's decision in *MetLife v. FSOC* applies only to MetLife, and the government's appeal of the decision is currently pending before the U.S. Court of Appeals for the District of Columbia Circuit. The AIG Submission noted that AIG would "look to the Court of Appeals' decision to inform the propriety of the Council's initial and continued designation of AIG."

In its submission, AIG presented financial information as of June 30, 2016. Except as otherwise noted, current financial information referred to herein is presented as of year-end 2016 and on the basis of GAAP.

3. LEGAL FRAMEWORK FOR ANNUAL REEVALUATIONS OF DETERMINATIONS

3.1 Scope of Reevaluation

Section 113(d) of the Dodd-Frank Act provides that the Council shall, not less frequently than annually, reevaluate each final determination regarding a nonbank financial company and rescind that determination if the Council determines that the company no longer meets the statutory standards for a determination.[13] The Council made its final determination with respect to AIG under the first standard for a determination under section 113(a) of the Dodd-Frank Act—that material financial distress at AIG could pose a threat to U.S. financial stability.[14] Pursuant to the second standard under section 113(a), the Council may determine that the nature, scope, size, scale, concentration, interconnectedness, or mix of the activities of a nonbank financial company could pose a threat to the financial stability of the United States. The Council may subject a nonbank financial company to Board of Governors supervision and prudential standards if either the first or second determination standard is met.[15]

Consistent with the statutory text, the Council described its process for annual reevaluations of determinations when it adopted the Rule and Interpretive Guidance implementing its authority under section 113. The preamble to the Rule and Interpretive Guidance states that the Council expects that its reevaluations "will focus on any material changes with respect to the nonbank financial company or the markets in which it operates since the Council's previous review."[16] In addition, the Interpretive Guidance states that for purposes of considering whether material financial distress at a nonbank financial company could pose a threat to U.S. financial stability, the Council intends to assess the impact of the company's material financial distress "in the context of a period of overall stress in the financial services industry and in a weak macroeconomic environment." This analysis summarizes certain key findings from the Council Basis, and focuses both on material changes since the Council's prior annual reevaluation and on the cumulative effect of any changes since the Council's final determination regarding AIG.

Certain developments in AIG's business are described herein to provide an understanding of the current state of the company and to respond to the items raised in the AIG Submission. In this annual reevaluation, the Council has relied on the information and analysis set forth or cited herein. In order to provide context for some of the changes that have occurred at AIG, this analysis also includes select financial information from periods before the Council's designation of AIG.

---

[13] Dodd-Frank Act section 113(d), 12 U.S.C. § 5323(d); *see also* 12 C.F.R. § 1310.23.
[14] Council Basis, p. 11.
[15] Dodd-Frank Act section 113(a), 12 U.S.C. § 5323(a).
[16] 12 C.F.R. part 1310.

3.2 AIG's Status as a Nonbank Financial Company

The Council's determination that AIG was a "U.S. nonbank financial company" was made on the basis of the company's assets and revenues, as explained in the Council Basis.[17] Although only one of the two tests for being "predominantly engaged in financial activities" is required to be met for a U.S. company to be a "U.S. nonbank financial company," the Council determined that both tests had been met.[18] The Council specifically found that: (1) more than 85 percent of the revenues of AIG and its subsidiaries are derived from activities that are financial in nature, and (2) more than 85 percent of the assets of AIG and its subsidiaries are related to activities that are financial in nature.[19]

In light of the developments at AIG since the Council's final determination, no changes have been identified that would affect the Council's determination that AIG is predominantly engaged in financial activities under both the revenue test and asset test cited above, based independently on (1) more than 85 percent of the revenues of AIG and its subsidiaries being derived from activities that are financial in nature under section 4(k)(4) of the Bank Holding Company Act, including subparagraphs (B) and (I), and (2) more than 85 percent of the assets of AIG and its subsidiaries being related to[20] activities that are financial in nature under section 4(k)(4) of the Bank Holding Company Act, including subparagraphs (B) and (I).[21] This conclusion is based on an evaluation of AIG's balance sheet and income statement, which reveal that nearly all of the company's U.S. and foreign revenues are derived from its insurance activities and that nearly all of its assets are related to its insurance activities.

4. OVERVIEW OF AIG

AIG ranks among the United States' largest insurance organizations by assets, and is among the world's largest providers of commercial, institutional, and individual insurance products. AIG operates in more than 80 countries with 56,400 employees and 90 million clients around the world.[22]

Beginning in the 1980s and continuing up to the financial crisis, AIG grew and increased profits by diversifying into noninsurance businesses. Many of the businesses into which AIG expanded created exposures to the U.S. housing markets, either directly or indirectly, which caused significant financial distress for AIG when the housing bubble burst. The largest problems that AIG faced during the crisis stemmed from credit default swaps (CDS) written by AIG Financial

[17] Council Basis, p. 17.
[18] Council Basis, p. 17.
[19] Council Basis, p. 17.
[20] The "related to" assets-based test, set forth in section 102(a)(6)(B) of the Dodd-Frank Act, 12 U.S.C. § 5311(a)(6)(B), is broader in scope than the "derived from" revenues-based test, set forth in section 102(a)(6)(A) of the Dodd-Frank Act, 12 U.S.C. § 5311(a)(6)(A).
[21] 12 U.S.C. § 1843(k).
[22] AIG Annual Report on Form 10-K for the year ended December 31, 2012, pp. 3, 8; AIG Group Benefits, Overview Brochure (2016), available at https://www.aig.com/content/dam/aig/america-canada/us/documents/business/group-benefits/aigb100656-brochure.pdf.

Products (AIGFP) and numerous securities lending and repurchase agreement activities. The aftermath of downgrades of the securities underlying structured deals and of AIG itself led to collateral calls in all three of these markets. Attempts to craft a private-sector rescue for AIG were hindered by the extreme complexity of the internationally active organization. Moreover, AIG's intercompany dealings were in many cases very complicated, adding to the high degree of interconnectedness among AIG's subsidiaries and between subsidiaries and the parent company.

Initiatives conducted by the Board of Governors, the Federal Reserve Bank of New York, and the Treasury Department, which began in September 2008, ultimately stabilized AIG. After these government interventions, AIG began to substantially reduce its size and complexity by selling off numerous subsidiaries and exiting nontraditional businesses (such as AIGFP). The AIG Submission states that since the Council's final determination in 2013, AIG has continued to reduce its size and risk by selling non-core operations and businesses, simplifying its operations, and focusing on its more traditional insurance businesses (i.e., its property and casualty and life and retirement businesses).[23]

As of year-end 2016, AIG had total assets of $498 billion, $83 billion in separate account assets, $31 billion of long-term debt, and a leverage ratio of 5.4x. As shown in Table 1, AIG's total debt decreased by 58 percent since 2012, when including the debt of subsidiary ILFC in 2012 ($24.3 billion). Because of this reduction in debt, AIG's leverage as measured by debt to equity has decreased significantly since 2012, although the leverage ratio (as measured by total assets to equity) has not followed this pattern because of share repurchases executed by the company in the second half of 2016.

Table 1: Select Financial Information ($ Billions)

	2007	**2012**	**2016**
Total Assets	1,048.4	548.6	498.3
Total Debt	176.0	72.8	30.9
Total Revenue	110.1	65.7	52.4
Debt-to-Equity Ratio	1.8x	0.7x	0.4x
Leverage Ratio	9.3x	5.0x	5.4x
Short-Term Debt Ratio	15.2%	2.9%	1.5%

Source: AIG Annual Reports on Form 10-K for the years ended December 31, 2008, December 31, 2012, and December 31, 2016. Total debt includes $24.3 billion of ILFC debt in 2012 and excludes repurchase agreements and securities lending and Federal Home Loan Bank borrowing. The leverage ratio is calculated as total assets (excluding separate account assets) over total equity. The short-term debt ratio is calculated as short-term debt (comprising the current portion of long-term debt, securities lending payable, and repurchase agreements) over total assets (excluding separate account assets).

[23] AIG Submission, p. 3. **[•]**

4.1.1 Balance Sheet Overview

Since the final determination, AIG's total assets have decreased 9 percent, from $549 billion at year-end 2012 to $498 billion at year-end 2016.[24] Part of this decrease can be attributed to the divestiture of approximately $30 billion of ILFC assets that were held for sale in 2013 and 2012.[25] In addition, from 2012 to 2016, AIG's total investments decreased 13 percent, from $376 billion to $328 billion.[26] At the same time, AIG's separate account assets increased by 45 percent, from $57 billion in 2012 to $83 billion in 2016.[27] These changes are in line with AIG's business strategy of focusing on core insurance business lines and its decision in 2008 to begin running off its direct investment and global capital markets businesses. (See Appendix A for AIG's condensed consolidated balance sheet.)

4.1.2 Comparison to Peers

Table 2 compares AIG to the largest bank holding companies and other large insurers, sorted by total assets. AIG's ranking on this list has not changed since 2012. However, AIG has shown a decrease for all but one metric in this table, and while AIG's leverage ratio as measured by debt to equity has increased slightly since 2012, it is lower than every other entity on the list other than Berkshire Hathaway and State Farm.

---

[24] AIG Annual Report on Form 10-K for the year ended December 31, 2012, p. 204; AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 170.
[25] AIG Annual Report on Form 10-K for the year ended December 31, 2013, p. 211; AIG Annual Report on Form 10-K for the year ended December 31, 2014, pp. 211 and 228.
[26] AIG Annual Report on Form 10-K for the year ended December 31, 2012, p. 204; AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 170.
[27] AIG Annual Report on Form 10-K for the year ended December 31, 2012, p. 204; AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 170.

Table 2: AIG Compared to Largest Bank Holding Companies and Insurers ($ Billions)

Company	Total Assets	Total Liabilities	Total Debt	Sec. Lending/ Repo	Derivatives (notional)	CDS Ref.	Lev. Ratio
JPMorgan Chase	2,491.0	2,236.8	368.7	165.0	47,537.0	21.1	9.8x
Bank of America	2,187.7	1,920.9	240.8	170.3	41,375.6	23.1	8.2x
Wells Fargo & Co.	1,930.1	1,729.6	273.7	77.4	7,104.0	13.9	9.6x
Citigroup	1,792.1	1,565.9	236.9	141.6	46,116.7	21.4	7.9x
MetLife	898.8	831.3	24.0	27.1	418.1	17.7	8.7x
Goldman Sachs	860.2	772.8	249.9	79.3	41,375.6	20.5	9.8x
Morgan Stanley	814.9	737.8	176.8	70.5	28,593.0	20.9	10.6x
Prudential	784.0	737.9	21.3	11.9	366.1	7.5	10.8x
Berkshire Hathaway	620.9	334.5	101.6	0.0	26.5	25.6	2.2x
AIG	**498.3**	**421.4**	**30.9**	**4.1**	**180.8**	**9.4**	**5.4x**
US Bancorp	446.0	398.0	46.0	1.0	282.3	N/A	9.3x
PNC	366.4	319.5	50.9	1.8	410.8	N/A	7.8x
Capital One	357.0	309.5	59.5	0.9	142.9	6.6	7.5x
New York Life	317.9	282.4	6.1	1.3	133.0	N/A	7.9x
TIAA	302.0	258.3	4.0	0.6	14.0	N/A	5.8x
Lincoln	261.6	247.1	12.4	0.8	104.9	3.6	9.2x
Northwestern Mutual	251.7	230.4	1.8	0.9	13.0	N/A	9.4x
State Farm	245.6	152.9	0.8	0.0	0.0	N/A	2.6x
Jackson National Life	236.9	230.3	0.7	0.5	117.6	N/A	13.3x
Principal Financial	228.0	217.6	3.2	0.0	46.4	N/A	8.6x
Hartford	223.4	206.5	5.1	0.2	56.2	6.6	6.4x

Source: Company SEC filings; The Depository Trust & Clearing Corp. (DTCC) Trade Information Warehouse; NAIC, based on insurance company statutory filings; as of December 31, 2016. Total debt includes Federal Home Loan Bank advances but excludes securities lending and securities sold under agreements to repurchase. "CDS Ref." is gross CDS outstanding for which the company is a reference entity; includes companies that are reported as a top 1,000 reference entity in DTCC's Trade Information Warehouse Data. Leverage ratio calculated as total assets (excluding separate account assets) over total equity.

4.1.3 Key Business Divestitures & Wind-downs

As discussed above, since the financial crisis, AIG has significantly reduced its size and certain risks by selling or winding down non-core operations and businesses. Following is a brief summary of several key actions taken by the company.

AIGFP

AIGFP has substantially shrunk its derivatives portfolio. Gross notional derivative exposures declined from $1.6 trillion at year-end 2008 to $127 billion at year-end 2012.[28] According to AIG, as of June 30, 2016, AIGFP is immaterial to the assets, liabilities, and revenue of AIG.[29]

Sale of ILFC

On December 16, 2013, AIG entered into an agreement to sell ILFC to AerCap Holdings NV (AerCap). In this transaction, AerCap took on approximately $21 billion of debt attributable to ILFC.[30] The sale was completed on May 14, 2014, with AerCap Ireland Limited, a wholly owned subsidiary of AerCap, acquiring all of the common stock of ILFC in exchange for consideration of approximately $7.6 billion, including $2.4 billion of cash and 97.6 million newly issued AerCap common shares.[31] On June 9, 2015, AIG completed the sale of its AerCap shares.[32]

Sale of AIG Advisor Group

On May 6, 2016, AIG completed the sale of AIG Advisor Group to Lightyear Capital and PSP Investments for **[•]**.[33] AIG Advisor Group included four broker-dealers: FSC Securities Corporation, Royal Alliance Associates, SagePoint Financial, and Woodbury Financial Services.

Sale of United Guaranty Corporation

On December 31, 2016, AIG completed the sale of United Guaranty Corporation to Arch Capital Group Limited for $3.3 billion.[34] United Guaranty Corporation is a private mortgage insurance company with $186 billion of first-lien primary mortgage insurance in force as of September 30, 2016.[35] In the transaction, AIG received $2.2 billion in cash and $1.1 billion of Arch Capital Group Limited convertible non-voting common-equivalent preferred stock.[36]

---

[28] AIG Annual Report on Form 10-K for the year ended December 31, 2008, p. 263; AIG Annual Report on Form 10-K for the year ended December 31, 2012, p. 278.
[29] AIG Submission, p. 3.
[30] AerCap Press Release, AerCap to Acquire International Financial Lease Corporation (December 16, 2013).
[31] AIG Annual Report on Form 10-K for the year ended December 31, 2014, p. 228.
[32] AIG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, p. 7.
[33] AIG Response to OFR Request 22, p. 1.
[34] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 176.
[35] AIG Current Report on Form 8-K dated Jan. 3, 2017, p. 5.
[36] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 176.

5. TRANSMISSION CHANNEL ANALYSIS

5.1 Overview

As described in the Interpretive Guidance, the Council has identified three transmission channels as most likely to facilitate the transmission of the negative effects of a nonbank financial company's material financial distress or activities to other financial firms and markets:[37]

- *Exposure*. A nonbank financial company's creditors, counterparties, investors, or other market participants have exposure to the nonbank financial company that is significant enough to materially impair those creditors, counterparties, investors, or other market participants and thereby pose a threat to U.S. financial stability.
- *Asset liquidation*. A nonbank financial company holds assets that, if liquidated quickly, would cause a fall in asset prices and thereby significantly disrupt trading or funding in key markets or cause significant losses or funding problems for other firms with similar holdings.
- *Critical function or service*. A nonbank financial company is no longer able or willing to provide a critical function or service that is relied upon by market participants and for which there are no ready substitutes.

In its final determination regarding AIG in 2013, the Council concluded that the threat to U.S. financial stability posed by AIG's material financial distress arose primarily from the exposure and asset liquidation transmission channels, and that the critical function or service transmission channel may exacerbate the extent to which the company's material financial distress could be transmitted to the broader financial system and economy.[38] The Council further concluded that AIG's complexity and potential difficulty to resolve could also exacerbate the risks posed by AIG's material financial distress across all three transmission channels.[39]

Based on its analysis, the Council has identified significant developments and conducted additional analyses that materially affect the conclusions set forth in the Council Basis.

5.2 Exposure Transmission Channel

As noted above, under the exposure transmission channel, the Council considers the exposures that a nonbank financial company's creditors, counterparties, investors, or other market participants have to the nonbank financial company.

At the time of the final determination, the Council determined that the principal exposures related to AIG's insurance products stemmed from the exposures of institutional contract holders and retail policyholders. The company's institutional products included AIG's pension products, stable value wraps, and bank- and corporate-owned life insurance (BOLI and COLI,

[37] 12 C.F.R. part 1310.
[38] Council Basis, p. 7.
[39] Council Basis, p. 7.

respectively). The Council found that losses to large financial institutions could impair their provision of financial services, while exposures of non-financial entities may directly and adversely affect their economic activity. With respect to retail policyholders' exposures to AIG, the Council focused on the potential for policyholders to withdraw from AIG due to their concerns about the potential losses they could incur in the event of AIG's material financial distress. The Council found that these policyholder withdrawals could, in turn, force AIG to liquidate assets to satisfy its obligations. As a result, much of the Council's analysis regarding the exposures of retail policyholders related more to the potential transmission of risk through the asset liquidation transmission channel. Those potential asset liquidation risks are addressed in section 5.3 below. With respect to exposures arising from AIG's retail products, the Council also focused on the potential for state guaranty associations (GAs) to mitigate or exacerbate the risks arising from policyholders' exposures; the GAs are discussed below in section 5.2.2.

In addition to the exposures to AIG arising from the company's insurance products, the Council determined that AIG's capital markets activities were another source of direct exposures to AIG. The Council determined that while individual exposures of firms to AIG could be considered small relative to the firms' capital, the aggregate exposures were significant enough that AIG's material financial distress could aggravate losses to financial firms and contribute to material impairment in the functioning of key financial markets or the provision of financial services by AIG's counterparties, and that the resulting contraction in the availability of credit could damage the broader economy.

Based on the analysis below, capital markets exposures to AIG have decreased substantially, and exposures arising from AIG's insurance products do not appear to contribute significantly to the threat that the company's distress could pose to U.S. financial stability through the exposure transmission channel. Key factors include the following:

- Direct and indirect capital markets exposures to AIG have decreased substantially since 2012 as AIG has exited certain business lines and transaction types. In particular, AIG has reduced the amounts of its total debt outstanding, short-term debt, derivatives, securities lending, repurchase agreements, and total assets, in some cases significantly.
- Exposures of institutional policyholders arising from AIG's general account insurance products are roughly similar to 2012 **[•]**.[40] AIG's stable value wrap products increase the potential risks that AIG's material financial distress could pose to certain counterparties but do not appear to contribute significantly to the threat that the company's distress could pose to U.S. financial stability because of the nature of the product and the diffuse market participants who would ultimately bear these losses.
- Exposures of retail policyholders arising from AIG's general account insurance products are roughly similar to 2012 but do not contribute significantly to the risk that material financial distress at AIG could pose to U.S. financial stability through the exposure transmission channel. Additional analysis, described in section 5.2.2 below, has been conducted for purposes of this reevaluation regarding the potential effects of these

[40] Council Basis, p. 29. AIG Response to OFR Request 4, December 31, 2016.

liabilities on state guaranty associations, including the effects of factors that would reduce the guaranty associations' obligations in the event of the insolvency of AIG's insurance subsidiaries.

5.2.1 Exposures Arising from AIG's Capital Markets Activities

Direct and indirect exposures of financial market participants to a nonbank financial company experiencing material financial distress can impair those market participants or the financial markets in which they participate and thereby pose a threat to financial stability. Even if individual exposures are relatively small, the direct and indirect exposures can be large enough in the aggregate for a firm's material financial distress to have a destabilizing effect on financial markets. At AIG, these capital markets exposures include the company's outstanding securities,[41] derivatives, repurchase agreements, and securities lending activities.

Capital markets exposures to AIG have substantially decreased since the Council's determination regarding AIG (see Table 3, which includes data from 2007 for historical context). Since 2012:

- AIG's outstanding long-term debt has decreased by 58 percent, from $73 billion to $31 billion;[42]
- Derivatives exposures on a gross notional basis have decreased by 6 percent, from $193 billion to $181 billion, and on a fair value basis have decreased by 50 percent, from $4.1 billion to $2.0 billion;[43]
- Aggregate liabilities associated with securities lending, repurchase agreements, and short-term debt have decreased by 57 percent, from $14 billion to $6.3 billion; and
- The notional amount of single-name credit default swaps outstanding for which AIG is the reference entity has decreased by 87 percent, from $70 billion to $9.4 billion.[44]

---

[41] AIG's shareholders would be expected to incur losses in the event of AIG's material financial distress. However, as noted in the Council Basis, losses arising from a decrease in the value of AIG's common equity, by themselves, would not generally constitute a threat to financial stability. AIG's market capitalization increased from $52 billion as of year-end 2012 to $65 billion as of year-end 2016. Bloomberg, as of July 13, 2017.
[42] This long-term debt figure for 2012 includes $24.3 billion of debt issued by ILFC. Long-term debt figures include the current portion of long-term debt.
[43] The notional and fair value of derivatives liabilities excludes embedded derivatives, which totaled $1.3 billion in 2012 and $3.1 billion in 2016.
[44] The dollar amount of CDS referencing AIG on a stand-alone basis has fallen by about 75 percent (from $38 billion to $9 billon), although AIG's ranking has moved up compared to other institutions. The dollar decline is due in part to the fact that the CDS market is smaller today than at the time of the final determination.

Table 3: Summary Capital Markets Exposures ($ Billions)

	12/31/2007	12/31/2012	12/31/2016
Total Debt	176.0	72.8	30.9
Derivatives (notional / fair value of liabilities)	2,654.5 / 18.0	192.6 / 4.1	180.8 / 2.0
Securities Lending Payable	82.0	8.2	2.4
Repurchase Agreements	8.3	3.0	1.8
CDS as a Reference Entity	89.6	69.6	9.4
Short-Term Debt	57.0	3.2	2.2

Source: AIG Annual Reports on Form 10-K for the years ended December 31, 2007, December 31, 2012, and December 31, 2016; DTCC Trade Information Warehouse. Total debt includes total long-term debt (as presented on AIG's consolidated balance sheet) and commercial paper. Total debt in 2012 includes debt issued by ILFC ($24.3 billion). Derivatives figures exclude embedded derivatives; the fair value of derivatives liabilities takes into account counterparty netting and cash collateral. The 2007 CDS data is as of October 31, 2008 based on data availability; data for CDS as a reference entity includes ILFC for 2008 and 2012. Short-term debt includes commercial paper and the current portion of long-term debt (excluding borrowings of consolidated investments). In 2007, AIG had $13.1 billion of commercial paper outstanding.

Debt

A nonbank financial company's outstanding debt provides a direct channel for the negative effects of the firm's material financial distress to be transmitted to counterparties immediately on a mark-to-market basis and could also result in losses on principal and interest in the event of default.

AIG's consolidated outstanding debt has fallen from $73 billion in 2012 (including $24 billion of ILFC debt) to $31 billion as of year-end 2016. While AIG had more debt than any of its U.S. insurance organization peers in 2012, it now ranks second.[45]

Table 4: AIG Debt Compared to U.S. Insurance Peers ($ Billions)

Company	Total Debt
Berkshire Hathaway	101.6
AIG	**30.9**
MetLife	24.0
Prudential	21.3
Allstate Corporation	6.3
Aflac Incorporated	5.4
Hartford Financial Services	5.1
Genworth Financial	4.6

Source: SNL Financial, as of December 31, 2016. Total debt as defined by SNL Financial (excluding repurchase agreements).

[45] SNL Financial, as of December 31, 2016; Council Basis, p. 40.

Limited data is available regarding the identity of the beneficial owners of AIG's outstanding debt securities. Record holders can be identified for $8.8 billion of AIG's long-term debt, as shown in Table 5, according to public data available from Bloomberg. However, although these firms are the record holders, they are not likely the beneficial owners of a significant portion of these securities; rather, these debt holdings likely constitute investments of other institutional and retail investors. Further, the identities of the record or beneficial owners of the remaining 65 percent of AIG's outstanding debt are unknown. That said, based on the available data, the largest identified record holders of AIG's publicly traded debt have significantly smaller holdings than in 2012. At that time, the largest holders were Allianz (over $9.1 billion) and Vanguard Group and Fidelity (each with over $1 billion).[46] As of year-end 2016, the largest holder, Vanguard Group, holds $0.6 billion.

Table 5: Top Known Holders of AIG Debt ($ Millions)

Company (2012)	Value of AIG Debt Held (2012)	Company (2016)	Value of AIG Debt Held (2016)
Allianz	9,088	Vanguard Group	620
Vanguard Group	1,389	BlackRock	453
Fidelity	1,265	Allianz	443
BlackRock	688	Prudential	417
Loomis Sayles	523	Fidelity	394
Banc One (JPMorgan Chase)	426	Northwestern Mutual	289
Franklin Resources	379	TIAA	273
Capital Research & Mgmt.	368	JPMorgan Chase	266
T. Rowe Price	258	PIMCO	193
Dodge & Cox	240	MFS Investments	192

Source: Council Basis, p. 42; Bloomberg, as of May 16, 2017.

<u>Derivatives</u>

AIG's derivatives activity is another source of exposure to the company. The majority of AIG's derivatives counterparties are other large financial intermediaries that are interconnected with one another and the rest of the financial sector. Exposures of these counterparties to AIG could result in direct losses to those firms as a result of AIG's material financial distress.

AIG's gross notional amount of derivatives outstanding has decreased 6 percent since 2012, to $181 billion.[47] Over the same time period, AIG's net derivatives liability decreased by over 50

[46] Council Basis, p. 42.

[47] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 234; AIG Annual Report on Form 10-K for the year ended December 31, 2012, p. 277. As of year-end 2016, by gross notional amount, AIG had $96.2 billion of interest rate derivatives, $23.3 billion of foreign exchange derivatives, $22.8 billion of equity derivatives, $0.9 billion of credit derivatives, and $37.7 billion of other derivatives.

percent, to $2.0 billion.[48] AIG's net derivatives liability reflects the effects of counterparty netting adjustments and offsetting cash collateral, which totaled $1.3 billion and $1.5 billion in 2016, respectively, but does not reflect an additional $3 billion of non-cash collateral posted by AIG to counterparties.[49]

AIG's largest derivatives counterparties are shown in Table 6 by major contract type. The gross notional amount of derivatives outstanding associated with the top 10 counterparties has **[•]**.[50] The top 10 derivatives counterparties represented **[•]**.[51]

Table 6: AIG's Top 10 Derivatives Counterparties by Gross Notional Amount ($ Millions)

Counterparty	FX	Equity	Credit	Interest Rates	Total
[•]	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**
Total (Top 10 Counterparties)	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**
AIG Total Outstanding	**23,271**	**22,806**	**865**	**96,198**	**180,835**

Source: AIG Response to Office of Financial Research (OFR) Request 9, Derivative Counterparties, as of December 31, 2016; AIG Annual Report on Form 10-K for the year ended December 31, 2016. Notional exposures of futures and options exchanges totaled $18.9 billion as of year-end 2016. Counterparties are aggregated on a consolidated basis for purposes of this table. **[•]**

AIG clears its interest rate derivatives contracts through futures commission merchants, which include subsidiaries of **[•]**.[52] For AIG's exchange-traded derivatives, which include interest rate, foreign exchange, and equity derivatives, AIG uses **[•]** as brokers. Cleared and exchange-traded derivatives represented **[•]** of AIG's total notional derivatives outstanding at year-end 2016 (**[•]** over-the-counter cleared and **[•]** exchange-traded).[53] Thus, **[•]** of the notional value of AIG's total derivatives are uncleared, exposing those counterparties to potential losses in the event of AIG's material financial distress.[54]

AIG has continued to wind down the CDS portfolio of AIGFP, the entity responsible for a significant amount of AIG's losses during the financial crisis, which was in run-off mode at the time of the final determination.[55] The AIG Submission states that, as of June 30, 2016, legacy

[48] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 234; AIG Annual Report on Form 10-K for the year ended December 31, 2012, p. 277.
[49] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 234; AIG Annual Report on Form 10-K for the year ended December 31, 2012, p. 277.
[50] AIG Response to OFR Request 9, Derivative Counterparties, as of December 31, 2016; Council Basis, p. 43.
[51] AIG Response to OFR Request 9, Derivative Counterparties, as of December 31, 2016; AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 234; AIG Annual Report on Form 10-K for the year ended December 31, 2012, p. 277; Council Basis, p. 43.
[52] AIG Response to OFR Request 9, Derivative Counterparties, as of December 31, 2016.
[53] AIG Response to OFR Request 10, Centrally Cleared Derivatives, as of December 31, 2016.
[54] *See* AIG Response to OFR Request 10, Centrally Cleared Derivatives, as of December 31, 2016.
[55] Council Basis, p. 18.

AIGFP is immaterial to the assets, liabilities, and revenue of AIG, and will continue to be wound down.[56]

CDS as Reference Entity

Like many financial institutions, AIG is a reference entity on CDS contracts. CDS contracts with AIG as a reference entity in which protection buyers do not hold AIG's securities create a new exposure to AIG, rather than merely transferring existing risk between the counterparties, so these transactions are relevant to the exposure transmission channel analysis even though AIG is not a party to these CDS contracts.

Outstanding single-name CDS referencing AIG has fallen from $70 billion as of year-end 2012 (including ILFC) to $9.4 billion as of year-end 2016.[57] This decrease is due in part to a decline in the overall size of the CDS market; however, AIG has also declined relative to other reference entities, going from the fourth largest non-sovereign entity in 2012 (including ILFC) to the 19th largest.[58]

Table 7: Top Non-Sovereign CDS Reference Entities ($ Billions)

Rank	Institution	Gross Notional CDS Outstanding
1.	Bank of America	23.1
2.	Berkshire Hathaway	22.5
3.	Citigroup	21.4
4.	JPMorgan Chase	21.1
5.	Morgan Stanley	20.9
6.	Goldman Sachs	20.5
7.	General Electric	18.5
8.	MetLife	17.7
9.	Wells Fargo	13.9
10.	MBIA	13.8
19.	**AIG**	**9.4**

Source: DTCC Trade Information Warehouse, as of December 31, 2016.

Repo and Securities Lending

AIG engages in secured financing transactions, sometimes as a borrower of cash (or liquid securities) and sometimes as a lender of cash (or liquid securities). The fair value of securities pledged by AIG under repurchase and securities lending transactions has decreased from $11 billion as of year-end 2012 to $4.2 billion in 2016.[59] Market participants' exposure to AIG through these activities has decreased by over 60 percent since 2012.

[56] AIG Submission, p. 3.
[57] DTCC Trade Information Warehouse, as of December 31, 2016; Council Basis, p. 45.
[58] DTCC Trade Information Warehouse, as of December 31, 2016; Council Basis, p. 45.
[59] AIG Annual Reports on Form 10-K for the year ended December 31, 2012, p. 264; AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 222.

Material financial distress at AIG could cause losses to these counterparties if AIG has insufficient liquidity to repay cash due to the counterparties. Further, if AIG could not return the cash in full, its counterparties may be forced to liquidate the pledged securities, which could result in losses to the counterparty. Such losses would likely be less in cases where the pledged securities are U.S. government or other high-quality securities than for corporate bonds. The largest counterparties in transactions in which AIG is a borrower of cash are shown in Table 8; the average collateral posted to counterparties during 2016 was **[•]** of which was corporate bonds.[60]

Table 8: Top Repurchase Agreement and Securities Lending Counterparties to AIG ($ Millions)

Company	**Average Collateral Received**
[•]	**[•]**

Source: AIG Response to OFR Request 11, Follow-Up, as of December 31, 2016.

Guaranteed Investment Contracts

AIG issues guaranteed investment contracts (GICs) to a variety of institutional investors and retirement plans. These products provide guaranteed interest payments and return of principal from the issuing insurer's general account. If AIG were to default on these obligations, investors would suffer losses on the principal and interest under the GICs. As of December 31, 2016, AIG had approximately **[•]** of GICs outstanding **[•]**.[61]

Arrangements with Federal Home Loan Banks

Federal Home Loan Bank (FHLB) borrowing has become a common source of liquidity for many financial institutions. Certain AIG insurance subsidiaries are members of FHLB associations, which allows the insurance companies to receive cash advances against pledged eligible securities. AIG is generally subject to the risk that the FHLB lender will declare all advances due and payable or increase the level of haircuts assigned to pledged collateral.

AIG's outstanding advances from FHLBs remain relatively small but increased substantially, from $82 million in 2012 to $735 million (of which $733 million is borrowings by AIG's property and casualty insurance subsidiaries).[62] In addition, $429 million was due to the FHLB of Dallas under funding agreements issued by AIG subsidiaries.[63] AIG has **[•]** of collateral eligible for FHLB advances (including both pledged and available), indicating the scale of additional FHLB advances the company could seek and therefore the FHLBs' potential

[60] AIG Response to OFR Request 11, Follow-Up, as of December 31, 2016.
[61] AIG Response to OFR Request 13, as of December 31, 2016; Council Basis, p. 30.
[62] AIG Annual Report on Form 10-K for the year ended December 31, 2012, pp. 127-128; AIG Annual Report on Form 10-K for the year ended December 31, 2016, pp. 137-138.
[63] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 138.

exposures to AIG.[64] If AIG were to take significant advances against eligible collateral and subsequently default on its obligations to the FHLBs, the FHLBs would bear the market and credit risks associated with the pledged securities.

Capital Markets Exposures of G-SIBs to AIG

The exposures of other large financial institutions to a nonbank financial company could serve as a mechanism by which its material financial distress could be transmitted to those firms and to financial markets more broadly. Table 9 presents a summary of the exposures of global systemically important banks (G-SIBs) to AIG through various types of financial instruments and transactions. Total capital markets exposures to AIG have decreased. Total exposures of G-SIBs to AIG **[•]**. No single G-SIB has an exposure greater than **[•]** of equity capital, and most G-SIBs had exposures below **[•]**. In addition, G-SIBs' long-term debt exposure set forth in Table 9, which reflects only initial purchasers in AIG's issuances due to data limitations, **[•]**. AIG's net derivative liability to G-SIBs **[•]**. AIG's notional amount of outstanding derivatives with G-SIBs **[•]**, and the percentage of AIG's notional derivatives with G-SIBs as a percentage of its total **[•]**. Finally, G-SIBs' credit line exposures to AIG **[•]**.

Table 9: Capital Markets Exposures of G-SIBs to AIG ($ Millions)

				Derivatives		Total Potential Exposure	
	Long-Term Debt Issuance (1)	Credit Lines (2)	Repo/Sec Lending (3)	Notional (4)	Net Liability (5)	Amount (1+2+3+5)	% of Equity Capital
[•]	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**
Total G-SIB	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	
Total G-SIB 2012	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	

Source: AIG Response to OFR Request 1.a, as of December 31, 2016. Long-term debt based on primary issuance in 2016. Credit lines data is based on AIG Response to OFR Request 1.d, as of December 31, 2016. Repurchase agreements and securities lending exposures are measured by average collateral received by G-SIBs where AIG is a cash borrower; AIG Response to OFR Request 11, Follow-Up. Net derivatives liability is the fair value of derivatives liabilities after counterparty netting; AIG Response to OFR Request 1c as of December 31, 2016. Equity capital figures are based on company financial statements for the year ended December 31, 2016.
* Denotes a foreign parent company. **[•]**

[64] AIG Response to OFR Request 12, FHLB Information, as of December 31, 2016.

5.2.2 Exposures to AIG's Insurance Products

The impact of AIG's material financial distress could include the loss of pension investments or different types of protection for institutional customers, and the loss of insurance protection or retirement savings for individual policyholders.

As of year-end 2016, AIG had $275 billion in total insurance liabilities (including $142 billion of life and retirement policy reserves, $77 billion of property and casualty reserves, and $20 billion of property and casualty unearned premium reserves).[65] This is roughly similar to 2012, when AIG had $280 billion in total insurance liabilities (including $149 billion of life and insurance policy reserves, $88 billion of property and casualty and mortgage guaranty loss reserves, and $22 billion of property and casualty unearned premium reserves).[66]

Exposures of Institutional Policyholders and Annuity Contract Holders

Following is an analysis of exposures of large institutional contract holders, including across AIG's stable value wrap, BOLI and COLI, and pension products, in order to assess the interconnectedness of AIG with major financial and non-financial entities and the effects material financial distress at AIG could have on those counterparties.

Exposures of institutional policyholders arising from AIG's insurance products **[•]**. While AIG's material financial distress could impose losses on pension plan sponsors, retirement plan participants, beneficiaries of structured settlements, and pension participants, these products do not appear to contribute significantly to the threat that the company's distress could pose to U.S. financial stability.

Stable Value Wrap Products

Stable value wrap contracts help trustees and investment managers of defined contribution plans manage the potential asset-liability mismatch arising from accelerated withdrawals and the credit risk associated with their investment portfolios. Stable value funds are a fixed income investment option commonly offered in defined contribution plans and are designed to preserve the total amount of participants' principal while providing steady returns as set forth in the contract. In the event of AIG's material financial distress, the pension plan users of these wraps could be forced to write down their assets from book to market value, resulting in losses for the pension plan sponsors.[67]

---

[65] AIG Annual Report on Form 10-K for the year ended December 31, 2016, pp. 120, 170, 293; SNL Financial, as of December 31, 2016. Non-guaranteed separate account liabilities are not generally exposed to the insurer's credit risk because they are insulated from claims of creditors of the insurance company. These liabilities therefore present less risk arising from the exposure transmission channel than general account liabilities.
[66] Council Basis, p. 28.
[67] The Council Basis noted that AIG's stable value wrap products, for which the notional amount wrapped was approximately $40 billion as of December 31, 2008, were cited in testimony by the FRBNY as one of the government's key concerns from an AIG failure. Joint written testimony of Thomas C. Baxter and Sarah Dahlgren

The total notional amount wrapped by AIG has **[•]**.[68] Table 10 lists the top 10 counterparties of AIG's stable value wrap products. **[•]**[69]

Table 10: Top 10 Stable Value Wrap Counterparties ($ Billions)

	Notional Value
[•]	**[•]**

Source: AIG Response to OFR Request 4, as of December 31, 2016.

[•] However, the counterparties to these transactions are less interconnected to the financial system than other types of large financial institutions, such as large banks, and the sizes of these exposures do not appear to be large enough to contribute materially to the risks that material financial distress at AIG could pose through the exposure transmission channel.

Bank-Owned and Corporate-Owned Life Insurance (BOLI/COLI)

AIG offers BOLI and COLI products. These are universal life insurance policies that provide for permanent life insurance with the ability to accumulate a cash value on a tax-deferred basis through the investment of premium payments. In the event of material financial distress at AIG, BOLI and COLI contract holders could surrender these insurance contracts for cash value, but in the event of AIG's material financial distress, the company may be unable to satisfy these obligations, exposing the contract holders to losses.

As of December 31, 2016, AIG had **[•]** BOLI/COLI contracts with a total cash value of **[•]**, [70] compared to **[•]** as of September 30, 2012.[71] As the Council noted at the time of its final determination regarding AIG, in the event of AIG's material financial distress, the company's BOLI/COLI business is small enough that it likely could be transferred to another life insurer, mitigating the potential for contract holders to experience losses.[72]

Group Annuities

AIG, through its life insurance subsidiaries, provides certain group annuity products to multiple market segments, including state and local governments, the health services industry, institutions of higher education, and public and secondary education institutions.

---

before the Congressional Oversight Panel (COP), Washington, D.C., Federal Reserve Bank of New York, COP Hearing on TARP and Other Assistance to AIG (May 26, 2010), available at http://www.newyorkfed.org/newsevents/speeches/2010/bax_dah100526.html.

[68] Council Basis, p. 29. AIG Response to OFR Request 4, December 31, 2016. According to the company, as of December 31, 2016, **[•]**.

[69] Furthermore, AIG's market share for stable value wrap products is less than 5 percent. *See* Stable Value Investment Association, available at https://www.stablevalue.org/knowledge/stable-value-at-a-glance.

[70] AIG Response to OFR Request 5.

[71] Council Basis, p. 29.

[72] Council Basis, p. 29.

As of December 31, 2016, AIG had **[•]** in fixed accounts with guaranteed interest rates to defined contribution plans, **[•]** as of December 31, 2012.[73] AIG's material financial distress could cause individuals in these plans to lose the protection of the account interest rate guarantees, and plan participants could lose value in their retirement accounts.

Structured Settlements

Structured settlements are annuity contracts purchased to settle casualty claims. Generally the covered casualty claim involves a severe injury suffered by a third party that is covered by a property and casualty policy; often the injury involves a permanent disability or suffering. Once the claim is settled, the property and casualty insurer purchases the annuity from a life insurance company to provide a lifetime stream of income to the injured third party. If AIG were unable to satisfy its structured settlement obligations due to the company's material financial distress, payments to beneficiaries could be interrupted or reduced, and the shortfall would revert to other parties. Depending on the nature of the contract, losses could be passed to an assignment company, the original property and casualty insurer, or, if the property and casualty insurer also faced material financial distress, the insured businesses and professionals (e.g., medical practitioners) who are first parties to the beneficiaries' claims.[74] As of December 2016, AIG holds **[•]** in reserves against these contracts,[75] compared to **[•]** as of September 30, 2012.[76]

Pension Funds

At the time of the final determination, AIG also provided terminal funding annuities for private pension funds through its life insurance subsidiaries. A terminal funding agreement is a contract that is purchased by an employer that is terminating its defined benefit pension plan and transferring the accrued benefit liabilities into a life insurer's irrevocable group annuity.[77] **[•]**[78] **[•]**[79] Material financial distress at AIG could negatively affect the ability of its policyholders to access investment or retirement funds.

Exposures of Retail Policyholders and Guaranty Associations

Following is an analysis of exposures of retail policyholders and the state guaranty associations to AIG.

---

[73] AIG Response to OFR Request, Other Questions Follow-Up Response 2; Council Basis, p. 30.
[74] *See* Council Basis, p. 32.
[75] AIG Response to OFR Request 6, as of December 31, 2016.
[76] Council Basis, p. 31.
[77] AIG, Single Premium Group Annuity (SPGA): Contracts for Terminating and Frozen Defined Benefit Pension Plans, available at http://www.aig.com/content/dam/aig/america-canada/us/documents/brochure/singlepremgrpanncontractsagl-brochure.pdf.
[78] Council Basis, p. 31.
[79] AIG Response to OFR Request 7.

Retail Policyholders

[•][80] In the Council Basis, the discussion of retail policyholders' exposures to AIG focused on the potential for policyholder concerns about the potential losses they could incur in the event of AIG's material financial distress to lead policyholders to withdraw from AIG, which in turn could force AIG to liquidate assets to satisfy its obligations. As a result, that discussion included an analysis of the potential for the GAs to mitigate the risks arising from policyholders' exposures and an evaluation of the potential for stress to be transmitted to other life insurance companies if the GAs were required to assess premiums on other life insurance companies to fund GA liabilities associated with AIG's insolvency. For purposes of this reevaluation, the potential asset liquidation risk arising from policyholder withdrawals is addressed in section 5.3 below. Apart from the potential risks related to the GAs, discussed below, it appears that the exposures of retail policyholders to AIG do not contribute significantly to the risks that material financial distress at the company could pose to U.S. financial stability through the exposure transmission channel, based on the size and product mix of AIG's retail insurance business, the long-term nature of these liabilities, and the protection offered by the GAs.

Impact on State Guaranty Association Capacity

State GAs for U.S. life insurance companies protect holders of certain insurance and annuity products in the event of insolvency of the insurance company issuing those products. Upon the filing of a court order of liquidation against an insurer in its state of domicile, the GA of each state where the insolvent insurer's policyholders reside is then triggered[81] to provide coverage of claims of the failed insurer's policyholders in that state, up to statutorily prescribed limits.[82]

Obligations under certain products are not protected by GAs, either because the products are not eligible for coverage or because a portion of the policy value exceeds the coverage limit provided under the laws of a particular state. For example, many state guaranty funds do not provide coverage for GICs or most commercial policies.[83] Other institutional products, particularly unallocated annuities issued to benefit plans, may be covered by state guaranty funds, but the coverage level is small relative to the size of the contract, and the coverage is for

[80] AIG Response to OFR Request Other Questions Follow-Up Response 3, as of December 31, 2016.
[81] The various GAs are not activated until a receivership of an insurer results in a state court placing the insurer's estate into liquidation based upon a finding that the insurer is insolvent (i.e., it cannot pay its obligations as they become due or its assets are inadequate to satisfy its liabilities). The GAs may also be activated prior to insolvency if a state court finds that an insurer is impaired and places the insurer into rehabilitation or conservation. This subsection addresses the implications of insolvency at AIG or its significant subsidiaries in order to consider certain potential effects of the company's failure.
[82] *See* National Organization of Life and Health Guaranty Associations (NOLHGA), The Life & Health Insurance Guaranty Association System: The Nation's Safety Net (2016), pp. 3-4, available at https://www.nolhga.com/resource/code/file.cfm?ID=2515.
[83] *See* American Council of Life Insurers, Insurance Guaranty Associations: Frequently Asked Questions, available at https://www.acli.com/-/media/ACLI/Public/Files/PDFs-PUBLIC-SITE/Public-Public-Policy/guarantee-associations-FAQ.ashx.

the retirement plan, not the plan participants. To the extent that AIG's policies are not protected by the GAs, the policyholders will experience losses if AIG is unable to satisfy its obligations.

To provide funding for payments of covered claims, each GA may, on an after-the-fact basis, assess all licensed insurance companies doing business in that state and those companies writing policies in the same lines of business as the insolvent insurer. Assessments may continue for a number of years, as necessary, to reimburse the guaranty fund for its payments of covered claims. Assessments are typically based on a percentage of each solvent insurer's average annual premium in each state during the three calendar years prior to the year of insolvency, subject to a 2 percent annual cap.[84]

In the event of the insolvency of an insurer the size of AIG, the various GAs' funding needs could be significant over the duration of the company's liquidation in receivership.[85] Concerns about guaranty fund capacity would be more acute to the extent that policyholders are concentrated in certain states. Each state's guaranty fund exists only to protect the residents of its state up to the guarantee limits in that state. If the insolvency funding needs in one state exceeded that state's assessment capacity, the fund would not be able to draw on any spare assessment capacity from another state and could be required to borrow against assessments in future time periods.

State-level, nonpublic data provided by AIG indicate the GAs' capacity to meet the potential needs from an AIG life insurer's liquidation in receivership. AIG's liabilities associated with annuities allocated to individuals in the 10 states with the largest exposures to those products range from **[•]**.[86] In the event of the liquidation in receivership of AIG's insurers, any remaining assets of the insolvent insurers would be available to make payments to AIG's policyholders. The GAs would be obligated to make up any shortfalls if these assets were insufficient to fully satisfy covered obligations to policyholders up to the statutory limits.

In addition to GAs' obligations arising from AIG's annuities, payments would also be due over time in response to life insurance claims filed upon the deaths of individual insureds, including AIG's **[•]** of reserves of term, whole, and universal life insurance policies, which would be covered by separate assessments imposed by the GAs.[87] In 2015, the nationwide annual assessment capacity of the life GA system was $3 billion.[88]

---

[84] *See* NAIC, Life and Health Insurance Guaranty Association Model Act, section 9, available at http://www.naic.org/store/free/MDL-520.pdf.
[85] *See* J.D. Cummins and M.A. Weiss, Systemic Risk and the U.S. Insurance Sector, *Journal of Risk and Insurance* (2014), p. 508.
[86] AIG Response to OFR Request 8.
[87] AIG Response to OFR Request 13, FSOC 4Q16.values Asset Allocation-Revised, as of December 31, 2016.
[88] NOHLGA Nationwide Capacity, Assessments Called and Refunded Summary, available at https://www.nolhga.com/resource/file/capacity/2015/R1%20Nationwide%20Capacity,%20Assessments%20Called%20and%20Refunded%20Summary.pdf.

Applying historical asset-to-liability shortfalls to AIG's cash value of deferred annuities in each state is useful for analyzing the exposures of GAs to AIG because it indicates the extent to which AIG's insolvency could transmit stress directly to the GAs and indirectly to other insurers through the GAs' assessments. Typical shortfalls for previous life insurer liquidations have ranged from 5 to 15 percent, and for property and casualty insurers shortfalls have ranged from 35 to 45 percent.[89] In contrast, the shortfall in the resolution of Executive Life Insurance Company and its affiliate Executive Life Insurance Company of New York was an estimated 54 percent of GA-covered obligations.[90] The system of separate state insurance guaranty funds has never been tested by the insolvency of a life insurance company with the size and scope of AIG's subsidiaries, whose shortfalls could exceed historical loss rates, and these ranges are indications of potential outcomes rather than estimates of the shortfall that could occur in an AIG insolvency.

By way of example, the state GAs with the greatest exposures to AIG's deferred annuities would face a range of outcomes in the event of the insolvency of AIG's insurance subsidiaries, depending on the extent of the shortfall.[91] In the event of a 15 percent shortfall, the obligations of two GAs with large gross exposures to AIG's deferred annuities **[•]** times their annual assessment capacities, respectively. In contrast, in the event of a 50 percent shortfall, these states' obligations would equal **[•]** times their annual assessment capacities, respectively. However, these obligations would not likely all come due in a single year. A 50 percent shortfall equates to **[•]**.[92]

These calculations do not, however, take into account the states' coverage limits for particular products. As noted above, while many insurance policies and annuity contracts are protected up to state-specific and product-specific statutory limits, AIG's obligations under certain products are not protected under state law, or the policy value may exceed the GA's coverage limit.[93, 94]

[89] Joint Comments of NOLHGA and the National Conference of Insurance Guaranty Funds (NCIGF) in Response to the Federal Insurance Office's Request for Public Input, December 16, 2011, p. 5, available at https://www.nolhga.com/pressroom/articles/NOLHGA-NCIGF%20FIO%20SUBMISSION.PDF.

[90] NOLHGA estimated the costs to the GAs at $3.7 billion, after accounting for expenses and litigation settlements, and estimated that the insolvent subsidiaries held $6.5 billion in GA-covered obligations. 2016 NOLGHA Insolvency Cost Report, pp. 55-56, available at https://www.nolhga.com/resource/file/costs/Report16.pdf.

[91] **[•]** These state GA assessment capacities have been adjusted to remove an estimated 7.5 percent annual assessment contributions that AIG's life insurers would be unable to provide due to their insolvency, and based upon AIG's annuity premiums as a percentage of industry total annuity premiums written. AIG's Annual Annuity Premiums accounted for 7.5 percent of the market in 2014, 8.2 percent of the market in 2015, and 6.6 percent of the market in 2016. SNL Financial based upon SAP.

[92] AIG Response to OFR Request, as of December 31, 2016; GA data from NOLHGA website.

[93] States have determined the level of protection to be afforded to their respective citizens. Life insurance death benefits typically are $300,000 in 44 states and the District of Columbia and $500,000 in 6 states. Life insurance cash value coverage level is $100,000 in 41 states and the District of Columbia, while 9 states cover cash values at different levels above $100,000. The coverage level for annuity benefits is $250,000 in 38 states and is $300,000 or more in 12 states and the District of Columbia. States often determine different levels of protection to their citizens; *See* NOLHGA, The Life & Health Insurance Guaranty Association System: The Nation's Safety Net, 2016 Edition, available at https://www nolhga.com/resource/code/file.cfm?ID=2515. Other examples include minimum levels of liability insurance necessary for licensure, such as automobile or medical malpractice.

Because of these exclusions from the coverage and protection of the GAs, the amount of AIG's deferred annuities guaranteed by each GA—and thus the exposure of each GA to AIG—is likely less than these amounts.[95]

GAs maintain credit facilities and can borrow funds secured against future assessments if capacity were to be exhausted. Nonetheless, the liquidation of AIG's large insurer subsidiaries could still strain the GAs' capacity for many years.

Once a company has been placed into receivership, state insurance company regulators are empowered to impose stays or moratoria on insurance contract surrenders and benefit or claim payments. However, the imposition of this type of stay, especially in a period of overall stress in the financial services industry and in a weak macroeconomic environment, could affect confidence in other life insurers that have similar product or balance sheet profiles and could prompt increased surrenders by retail and institutional policyholders at these other insurers.

Impact of Guaranty Fund Assessments on Other Life Insurance Companies

The insolvency of AIG's insurer subsidiaries could transmit stress to other life insurance companies through the GAs' imposition of assessments on other insurers to fund the obligations arising from the AIG liquidation, if the insolvent insurer's assets are inadequate to satisfy its covered obligations. Insurers are required to be members of the GAs in the states where they are licensed to transact insurance business.

In the event of the insolvency of one or more of AIG's insurers, assessments would be paid by other insurers in response to claims that come due over time. However, depending on the extent of the claims made soon after the failure of one or more large life insurance companies, GA assessment commitments could contribute to an industry shock at a time when insurers may already be capital constrained, although, as noted above, the assessments are typically limited to 2 percent of annual premiums written by insurance companies doing business within the state. Further, although the insurance industry is only required to fund the GAs to protect a failed insurer's policy and contract holders up to the state-specific product benefit or claim minimum payout levels, there are historical examples of large insurance companies committing additional resources following an insurer failure in order to ensure continued confidence in the insurance industry. For example, there have been cases where solvent insurance companies have created special funding vehicles outside of the GAs to help support policyholders who would otherwise have suffered haircuts or losses.[96]

---

[94] Other products, particularly those for defined benefit plans, may be covered by guaranty funds, but the coverage level may be small relative to the size of the contract; the coverage is for the retirement plan, not the plan participant. Certain institutional products, such as stable value wraps, generally are not covered by state GAs.

[95] Data is not available to estimate the potential reduction in each GA's obligation.

[96] Examples include Executive Life of New York, Mutual Benefit, and Baldwin-United. Baldwin-United was an insurance company that went bankrupt in 1984, before the imposition by state insurance regulators of current resolution processes and mandatory assessments on all licensed insurer to support state guaranty funds. Baldwin-United had a relatively large annuity book of business, including a group annuity contract for California teachers.

A potential mitigant to these impacts on other life insurance companies is that many states allow insurers to offset guaranty assessments against premium tax liabilities in varying degrees. These tax offsets, which enable insurance companies to recoup the assessments contributed to their state GA, shift the burden to state budgets and taxpayers and reduce the share of GA assessment costs borne by the life insurance industry.

5.3 Asset Liquidation Transmission Channel

The second channel identified by the Council through which the negative effects of a nonbank financial company's material financial distress could be transmitted to other firms or markets is the asset liquidation transmission channel. Under the asset liquidation transmission channel, the Council considers whether a nonbank financial company holds assets that, if liquidated quickly, could significantly disrupt the operation of key markets or cause significant losses or funding problems for other firms with similar holdings. During a period of overall stress in the financial services industry and in a weak macroeconomic environment, deterioration in asset prices or market functioning resulting from a rapid liquidation of assets could pressure other financial firms to sell their holdings of affected assets in order to maintain adequate capital and liquidity. This, in turn, could produce a cycle of asset sales that could lead to further market disruptions.

The two key factors in assessing the potential for a nonbank financial company's asset liquidation to pose risks to other firms or markets are the amount and the nature of the assets the company may be forced to sell. In evaluating these factors, relevant considerations include the liquidity risk of the company's liabilities; the size and composition of the company's asset portfolio that would be liquidated; and any fire-sale discount, which depends on the liquidity of the assets. All other things being equal, the liquidation of larger or less-liquid asset portfolios poses a greater risk of disrupting financial markets than does the liquidation of smaller or more-liquid asset portfolios. In addition, asset sales over a relatively short period of time that lead to larger price discounts would be more likely to disrupt financial markets than asset liquidations over a longer period of time that lead to smaller discounts. More-leveraged firms may be forced to liquidate more assets in a shorter time than less-leveraged firms. Finally, sales of assets that are widely held or that are commonly used as collateral by large financial intermediaries in critical funding markets would generally be more disruptive than sales of assets that are held or used less widely.

In the event of material financial distress, AIG could be forced to liquidate assets to satisfy its obligations to counterparties, contract holders, policyholders, and others. The greatest source of potential liquidity strains that could cause or contribute to such a forced asset liquidation by AIG is the company's life and retirement liabilities, including annuities. AIG's material financial distress could result in a forced liquidation of assets in order to satisfy its liabilities arising from these products. At the same time, there are important mitigants to the potential for AIG to

---

The resolution of all of the annuity contracts of this insurer took four years to complete and required voluntary contributions of $157 million by 22 brokerage firms and $50 million by 50 insurance companies to make the policyholders whole to the extent of the minimum guarantees in their policies.

conduct a fire sale of assets, including that policyholders have contractual, tax, and other disincentives associated with early withdrawals from AIG; AIG's insurance company subsidiaries have the contractual right to defer payments on certain products; and AIG's state insurance regulators can impose stays on discretionary policyholder withdrawals. However, as discussed below, there could be broader negative consequences if a deferral or stay were imposed on withdrawals or surrenders.

At the time of the final determination, the Council determined that although AIG's life insurance and annuity products were generally considered to be long-term liabilities, a substantial portion of these liabilities were available for discretionary withdrawal within seven days with little or no penalty. The Council further determined that in the event of AIG's material financial distress, there could be a forced, rapid liquidation of a significant portion of AIG's assets as a result of policyholder surrenders or withdrawals that could cause significant disruptions to key markets, including corporate debt and asset-backed securities markets, particularly during a period of overall stress in the financial services industry and in a weak macroeconomic environment.

Additional consideration of incentives and disincentives for retail policyholders to surrender policies, including analysis of historical evidence of retail and institutional investor behavior, indicate that there is not a significant risk that asset liquidation by AIG would disrupt trading in key markets or cause significant losses or funding problems for other firms with similar holdings. Relevant factors in this determination include the following:

- AIG has outstanding **[•]** of life insurance and annuity products that allow policyholders to withdraw cash from the company upon demand. AIG's liquidity risk arises primarily from the potential for holders of annuities issued by AIG to withdraw their policies. The amount of general account liabilities associated with these annuities is **[•]**.
- Counterparties' terminations of their capital markets transactions with AIG—including repurchase agreements, securities lending, and derivatives arrangements—would increase the volume of AIG's forced asset sales; **[•]**.
- With respect to AIG assets that could be liquidated in the event of increased liquidity needs at AIG, the company's investment portfolio is **[•]**. AIG currently holds **[•]** of highly liquid assets and an additional **[•]** of investment-grade bonds, compared to **[•]** in 2012.
- A fire sale impact analysis suggests that relative to other large financial institutions, the market impact of a downward shock to the net worth of AIG has decreased since 2012, largely due to AIG's decrease in size. As of December 31, 2016, AIG ranked 11th for an equity shock, ranking it near PNC and Capital One, and 19th for an asset shock, ranking it near HSBC and Credit Suisse.

5.3.1 Liquidity of AIG Liabilities

As noted above, a key factor in assessing the risks posed by a company's liquidation of assets is the liquidity characteristics of the company's liabilities. Liabilities that may be terminated by the counterparty in the event of AIG's material financial distress, such as insurance products that allow policyholders to withdraw cash value from the company, could impose liquidity strains on

AIG that would force the company to sell assets to satisfy its obligations. In contrast, AIG products such as term life insurance policies do not accumulate cash value that a policyholder can withdraw and therefore do not contribute to the risk of asset liquidation.

General Account Liabilities

AIG's general account liabilities include (1) contractual obligations coming due and (2) liabilities that may be withdrawn at the discretion of the counterparty or policyholder, subject to applicable restrictions and limitations.[97]

With respect to contractual obligations coming due, AIG stated that, as of year-end 2015, less than **[•]** in obligations would come due in 2016,[98] with an additional **[•]** coming due in the following three years. In addition, terminations of AIG's outstanding capital markets arrangements could contribute to liquidity pressures at AIG. In particular, AIG has fair value derivative liabilities of $2.0 billion, $2.4 billion of securities lending payable, $1.8 billion of repurchase agreements, and $2.2 billion of short-term debt.[99] The company also has **[•]** of GICs outstanding that are subject to rollover risk.[100]

To assess AIG's liabilities that may be withdrawn by policyholders, the withdrawal risk associated with AIG's life insurance and annuity products can be grouped into three categories: (1) not surrenderable; (2) life insurance policies available for immediate discretionary withdrawal; and (3) annuity products available for immediate discretionary withdrawal. The following table shows the liquidity characteristics of AIG's life insurance and retirement products based on these categories. The liabilities of AIG's property and casualty insurance subsidiaries do not accrue a cash value and therefore do not pose significant liquidity risk.

---

[97] The Council Basis noted that the liquidation of AIG's equity-based separate account products is generally less likely to disrupt markets or to impose liquidity strains on the company than the liquidation of general account products. *See* Council Basis, p. 52. While the amount of the company's separate account assets have increased by $21 billion since the Council's final determination regarding AIG, those accounts continue to present less asset liquidation risk than general account liabilities.
[98] AIG Submission, p. 10.
[99] AIG Annual Report on Form 10-K for the year ended December 31, 2016, pp. 222-223, 234, 264
[100] AIG Response to OFR Request 13, FSOC 4Q16.values Asset Allocation-Revised, as of December 31, 2016. In the event of a three-notch credit downgrade (to S&P BBB+), AIG's GICs with a put feature may be subject to a **[•]** collateral call. *See* AIG Response to OFR Request 17, Downgrade Trigger.

Table 11: Liquidity Characteristics of General Account GAAP Reserves ($ Billions)

	Reserves	Share of Total Reserves	Cash Surrender Value Available Immediately
<u>No Cash Value or Not Withdrawable Before Maturity</u>			
Term Life	**[•]**	**[•]**	**[•]**
Group and Credit Life	**[•]**	**[•]**	**[•]**
Payout Annuities	**[•]**	**[•]**	**[•]**
Guaranteed Investment Contracts	**[•]**	**[•]**	**[•]**
Total	**[•]**	**[•]**	**[•]**
<u>Immediately Available Cash Surrender Value</u>			
Life Insurance Policies			
Whole Life	**[•]**	**[•]**	**[•]**
Universal Life	**[•]**	**[•]**	**[•]**
Universal Life (with Secondary Guarantees)	**[•]**	**[•]**	**[•]**
COLI/BOLI	**[•]**	**[•]**	**[•]**
Total	**[•]**	**[•]**	**[•]**
			[•]
Annuities			
Fixed Deferred Annuities (Sold Through Banks)	**[•]**	**[•]**	**[•]**
Deferred Annuities (Sold Through Agents)	**[•]**	**[•]**	**[•]**
Fixed Deferred Annuities	**[•]**	**[•]**	**[•]**
Fixed Index Annuities	**[•]**	**[•]**	**[•]**
General Account Portion of Variable Annuities	**[•]**	**[•]**	**[•]**
Group Deferred Annuities[101]	**[•]**	**[•]**	**[•]**
Fixed Deferred Annuities	**[•]**	**[•]**	**[•]**
Fixed Index Annuities	**[•]**	**[•]**	**[•]**
General Account Portion of Variable Annuities	**[•]**	**[•]**	**[•]**
Total	**[•]**	**[•]**	**[•]**
Total Available For Immediate Withdrawal	**[•]**	**[•]**	**[•]**
Total Reserves	**[•]**	**[•]**	

Source: AIG Response to OFR Request 13, FSOC 4Q16.values Asset Allocation-Revised, as of December 31, 2016.

Of AIG's **[•]** of general account reserves, **[•]** has no cash value or is not withdrawable before maturity, and accordingly poses little or no asset liquidation risk. An additional **[•]** is composed

[101] **[•]** *See* AIG Response to OFR Request 13, Follow-up.

primarily of whole life and universal life policies that can be withdrawn, and the company has **[•]** of deferred annuities (including retirement products) that can be withdrawn.

In comparison, in 2012 AIG had **[•]** of general account reserves, of which **[•]** had no cash surrender value or were not withdrawable before maturity. **[•]** Since 2012, the share of AIG's total general account reserves that are available for immediate withdrawal **[•]**.[102]

<u>Assessing the Potential for Policyholders to Withdraw from AIG</u>

Many factors may affect the magnitude of withdrawals from AIG in the event of the company's material financial distress, and there are substantial uncertainties regarding the extent to which policyholders might withdraw cash value from or surrender their policies. Due to this uncertainty, at the time of the final determination the Council considered the total cash value of all of AIG's annuity contracts and life insurance policies that could be surrendered immediately pursuant to their contractual terms. The Council also considered a 30-day stress calculation based on an adapted version of an A.M. Best liquidity stress model.

This reevaluation of the Council's determination regarding AIG includes additional analyses related to the potential for policyholders to rapidly withdraw cash value or surrender their policies from AIG if the company experienced material financial distress.

The total cash surrender value available immediately of AIG's withdrawable annuities and life insurance policies has **[•]**.[103] **[•]** based on factors described below, it is highly unlikely that the full amount would be withdrawn. In order to consider the scale of potential withdrawals, for purposes of this reevaluation, the Council has conducted additional analysis compared to the analysis in the Council Basis regarding the effects of incentives and disincentives for retail policyholders to surrender their policies in the event of AIG's material financial distress, including analysis of historical evidence of retail and institutional investor behavior. In order to assess a broader range of potential outcomes, the analysis below addresses two additional examples that were not analyzed in the Council Basis, one based on AIG's experience during the crisis, and another based on the experience of several insurance companies that failed in 1991.

Purpose of product. The withdrawal incentives of AIG's general account liabilities vary by product type or marketing line. Most individuals or entities that purchase life insurance products do so with the expectation that they will hold the product as a long-term investment in order to accumulate assets for savings or retirement or to pay death benefits in the event of the death of the insured. An early withdrawal from certain products results in the loss of insurance coverage or the loss of equivalent product guarantees, which may be contrary to these products' purposes. A policyholder can mitigate this loss by seeking a replacement policy from another provider, but in some cases the replacement of insurance coverage or product guarantees may be costly or impossible. In particular, with respect to insurance coverage with an underwriting component

[102] Council Basis, p. 53.
[103] Council Basis, p. 53.

(for example, where the policyholder's health has diminished or credit has deteriorated), a policyholder may become uninsurable or may have to pay substantially higher premium rates.

However, loss of coverage is only a compelling disincentive for insurance products with an underwriting component, such as universal or whole life insurance. Fixed deferred annuity products, for example, have little or no underwriting component and can be readily replaced with other annuities or financial market products.

In some previous cases, retail policyholders have submitted withdrawal requests at a slower pace and in smaller numbers than institutional owners of financial products in stressed market conditions. For example, in 2008, institutional investors withdrew funds from money market mutual funds more quickly than retail investors.[104] However, retail annuity products have been marketed by AIG and other life insurance companies as financial assets with guaranteed liquidity and other features that allow policyholders to access the funds in times of need. For example, AIG's fixed annuities sold through banks are often marketed as alternatives to bank certificates of deposit (CDs),[105] so they may be surrendered at a higher rate than annuities sold through agents. While AIG's marketing materials note that fixed deferred annuities are not FDIC insured, they describe these annuities as retirement savings products that offer "safety of principal," "guaranteed interest rates," and "easy access to your money."[106] These features may attract customers who have shorter investment time horizons or greater needs for liquidity.

Particularly with respect to AIG's products that are held for investment purposes, if AIG's policyholders were to lose confidence in the ability of AIG to satisfy their obligations, they may prefer to surrender their policies instead of risking potentially larger losses. Moreover, if policyholders wanted to keep their life insurance policies in effect, they could take out policy loans (as described below), which could also subject AIG's life insurance subsidiaries to a liquidity strain.

Contractual and economic incentives. Contractual and other disincentives may act as a deterrent to policyholder surrenders and withdrawals. Factors that may influence withdrawal decisions include a product's contractual claim or benefit features (for example, a waiting period may be involved before a contract holder may elect an action) and the condition of the issuing insurer and the broader financial system. AIG includes surrender charges and market value adjustments in certain life insurance and annuity contracts in order to discourage early surrenders of these products.[107] In general, policyholders may be more likely to withdraw cash value from AIG or

---

[104] *See* Patrick E McCabe, The Cross Section of Money Market Fund Risks and Financial Crises, *Federal Reserve Board Finance and Economics Discussion Series* (September 12, 2010), available at https://www.federalreserve.gov/pubs/feds/2010/201051/201051pap.pdf.

[105] Williams Walsh, M, A.I.G. Units Omit Name and Excel, *The New York Times* (December 9, 2009), available at http://www.nytimes.com/2009/12/10/business/10aig.html.

[106] AIG, Fixed Annuities Overview, available at https://www-1000.aig.com/TridionData.do?Page_ID=579862. The company's marketing material also notes that withdrawals of taxable amounts may be subject to income tax or a tax penalty. Id.

[107] Of AIG's $52 billion of withdrawable individual fixed deferred annuities, 67 percent is subject to no surrender charge. Of the company's $72 billion of withdrawable group retirement annuities, 89 percent is subject to no

surrender their policies if there are no or minimal withdrawal penalties than if the withdrawal would trigger a moderate or significant penalty.

However, in the event of a company's material financial distress, these disincentives may be overridden by a policyholder's desire for perceived safety and liquidity with financial products offered by another insurance company, a bank, or another type of financial institution, especially where there is no meaningful surrender penalty. If policyholders have doubts about AIG's ability to satisfy its obligations due to the company's material financial distress, policyholders would need to weigh the certainty of return of cash value (inclusive of any applicable penalties or tax consequences) against an uncertain and contingent future benefit due from a company that is in material financial distress.

Tax penalties. Tax penalties provide another potential disincentive for early withdrawal, especially for annuity contract holders who are under 59.5 years of age. In the event of a surrender (before the age of 59.5), annuity contract holders and retirement plan participants generally are subject to a 10 percent penalty on the taxable portion of any amount withdrawn. However, unlike annuities, life insurance products that accumulate cash value (e.g., whole life or universal life) are not subject to the 10 percent tax penalty and offer various withdrawal options that mitigate the ordinary income tax disincentives on withdrawal. Withdrawals and other distributions from life insurance products (as opposed to annuities) are generally treated first as a tax-free recovery of basis and then as taxable income. Policyholders may have the ability to avoid certain income tax disincentives through partial cash value surrenders up to the policyholders' tax basis (typically paid-in premium less withdrawals). Moreover, policyholders may be able to withdraw an even larger portion of the cash value of a policy by taking a partial cash value surrender up to the policy's tax basis and then policy loans thereafter. In addition, policyholders can avoid tax consequences if they exchange their life insurance policy or annuity for a policy or contract issued by another insurer, although this decision may slow the rate of surrenders.

Stays on withdrawals; potential contagion. Another potential mitigant of a forced liquidation of assets due to policyholder surrenders may be the imposition of a stay on discretionary withdrawals. In many cases, AIG's insurance company subsidiaries have the contractual right to defer payouts on the immediately payable cash surrender value for up to six months from the time of each individual withdrawal request. Such deferrals could slow or terminate the company's asset liquidation and thereby largely eliminate the potential for a fire sale of AIG's assets. However, there could be significant negative consequences if the company took this action. This action, if taken at a time when the company is experiencing material financial distress but has not been placed into liquidation, could send a negative signal to counterparties, policyholders, and investors, thereby creating significant concern and market uncertainty about the current health and future of AIG and resulting in negative effects for the broader industry.

---

surrender charge; $6.3 billion of these group retirement annuities have no surrender charge but are subject to 20 percent annual withdrawal limitations. AIG Annual Report on Form 10-K for the year ended December 31, 2016, pp. 86, 90.

Actions to restrict customer access to withdrawable policies could cause significant concern about access to funds at other insurance companies with similar asset and product profiles, especially in a time of financial market stress.

In addition to the company's contractual right to defer payments, state insurance commissioners have authority to impose a temporary stay on policyholder withdrawals and surrenders (except in situations where a policyholder faces a hardship), to limit outflows from the general account and conduct a more orderly liquidation of a life insurance company. A stay imposed by a state insurance commissioner would delay the payment of insurance and annuity benefits and cash surrenders to policyholders and contract holders (notwithstanding certain hardship exceptions).[108] While invoking a suspension on surrenders or withdrawals from one of the largest insurance companies might address liquidity concerns, it could potentially undermine confidence in the broader life insurance industry and spread uncertainty to the customers of other insurance companies with similar products, particularly during a period of financial stress and macroeconomic weakness.

An additional mechanism for the spread of contagion in this manner is a nonbank financial company's interconnectedness with other market participants as a result of the company's capital markets activities, because capital market participants may engage in protective behavior such as reducing exposures to counterparties and customers or ceasing certain activities to increase liquidity in anticipation of a potential shock.[109, 110] Given the relatively low level of AIG's capital markets activities, which, as described above, have continued to decrease, there is little risk of contagion arising through this mechanism in the event of AIG's material financial distress.

Historical analyses. Little data exists regarding policyholder withdrawal behavior in the context of the material financial distress of a company the size of AIG absent government intervention. In light of the paucity of data from comparable examples, the Council Basis described historical examples of policyholder withdrawals but did not include any estimates based on case studies of historical insurance failures. However, applying the available historical policyholder withdrawal rates to AIG is useful for analyzing AIG's liquidity risk because it provides context for the range of potential life insurance and annuity policyholder withdrawals that could occur from an insurer experiencing material financial distress. Therefore, the following discussion includes

---

[108] Stays could also be imposed by the courts during a receivership process. *See* NAIC, Insurer Receivership Model Act, section 108 (October 2007), available at http://www.naic.org/store/free/MDL-555.pdf. Section 108A of the Receivership Model Act provides that the state court handling the insurance receivership may issue orders as necessary, including stays. Section 108C of the Receivership Model Act provides that the commencement of a receivership proceeding operates as a stay.
[109] *See* Hal Scott, Interconnectedness and Contagion, Financial Panics and the Crisis of 2008 (November 20, 2012), available at http://ssrn.com/abstract=2178475; *see also* Scott G. Alvarez, General Counsel, Board of Governors, Remarks at the American Enterprise Institute Conference on Professor Hal Scott's Paper on Interconnectedness and Contagion (February 8, 2013), available at http://www.aei.org/files/2013/02/08/-scottalvarez-remarks_163346998313.pdf.
[110] *See* Ricardo J. Caballero, Macroeconomics After the Crisis: Time to Deal with the Pretense-of-Knowledge Syndrome, *Journal of Economic Perspectives* volume 24, issue 4 (2010), pp. 85-102.

information the Council considered at the time of its determination regarding AIG in 2013 as well as additional examples applying the historical policyholder withdrawal rates to AIG.

AIG saw significant increases in surrenders after it was downgraded by Standard & Poor's in September 2008. For AIG Domestic Retirement Services, surrender rates on all products were almost twice as high in the fourth quarter of 2008 as in the fourth quarter of 2007. However, the usefulness of this example is limited due to the government intervention in September 2008 that helped to prevent AIG's disorderly failure. In the absence of such intervention, surrender rates likely would have been higher.[111]

Data from the NAIC based on insurance company statutory filings show that, for general account liabilities, aggregate industry life and annuity surrenders, as a percentage of net policy reserves, **[•].**[112] **[•]**[113] **[•]**

Confidential, company-specific information from the Connecticut Insurance Department regarding surrenders for U.S. life insurers over the 10-month period from January 2009 to October 2009 shows **[•]**.[114] **[•]**

Other historical examples provide additional insight into policyholder withdrawal behavior, but their direct applicability to AIG may be somewhat limited given that the failed insurers were substantially smaller than AIG and their failures did not occur during a period of overall stress in the financial services industry. During the late 1980s, a number of U.S. life insurance companies reacted to higher interest rates by investing heavily in high-yield assets to cover the high rates paid to policyholders.[115] The failures of First Executive (the parent of Executive Life Insurance Company and Executive Life Insurance Company of New York) and First Capital in 1991 resulted in significant increases in policyholder withdrawal rates.[116] First Executive

[111] Annualized surrender rates for group retirement products were 16.1 percent, compared to 8.7 percent in the fourth quarter of 2007. For individual fixed annuities and individual variable annuities, the rates were 35.8 percent and 20.3 percent, compared to 15.4 percent and 12.9 percent, respectively, in the fourth quarter of 2007. *See* AIG Financial Supplement for the quarter ended December 31, 2008, p. 30.
[112] Data are from the NAIC, based on insurance company statutory filings.
[113] GAO, Insurance Markets—Impacts of and Regulatory Response to the 2007-2009 Financial Crisis, GAO-13- 583 (June 2013), pp. 22-23. The GAO report states, "Because interest rates dropped during the crisis, variable annuities with guarantees purchased before the crisis were 'in the money,' meaning that the policyholders' account values were significantly less than the promised benefits on their accounts, so the policyholders were being credited with the guaranteed minimum instead of the lower rates actually being earned. Thus, policyholders were more likely to stay in their variable annuities during the crisis because they were able to obtain higher returns than they could obtain on other financial products."
[114] **[•]**
[115] *See* Richard L. Fogel, Insurer Failures: Regulators Failed to Respond in Timely and Forceful Manner in Four Large Life Insurer Failures, GAO/T-GGD- 92-43 (September 9, 1992), p. 2, available at http://www.gao.gov/assets/110/104752.pdf.
[116] When First Executive announced a significant loss on its bond portfolio in early 1990, its policyholders withdrew a total of about $4 billion in that year. According to GAO testimony to Congress, the subsequent takeover of Executive Life by regulators spurred policyholder runs at two unrelated institutions. In testimony to Congress in 1992 regarding the findings of a GAO review, the Assistant Comptroller General stated, "According to regulators,

policyholders withdrew at an estimated quarterly rate of 20.3 percent of annuities and 9.5 percent of life insurance policies during the first quarter of 1990, and First Capital policyholders withdrew at an estimated quarterly rate of 15.6 percent during the second week of May 1991.[117] Regulatory stays were imposed at Executive Life that stopped any further runs. In another example over a six-week period in June and July of 1991, pension liabilities were withdrawn from Mutual Benefit at a rate of 37.7 percent per quarter.[118] Given its size and prominence, if AIG were to experience material financial distress during a period of overall stress in the financial services industry and in a weak macroeconomic environment, there could be a more significant policyholder response.[119] However, there have also been significant changes to the regulatory environment for insurance companies since these examples occurred, including risk-based capital requirements that penalize insurers for owning higher-risk investments; risk-focused regulatory examination procedures; and the Own Risk and Solvency Assessment (ORSA) project, which requires insurers to report annually on material risks and how the company's capital model addresses those risks.

A.M. Best calculates a short-term (30-day) stress liquidity ratio to evaluate the overall liquidity strength of life insurance companies. This test assumes that 15 percent of life policies and 50 percent of annuities are surrendered in one month, several multiples higher than the historical examples cited above.[120]

---

the April 1991 takeovers of Executive Life and Executive Life of New York spurred policyholder runs on junk bond laden First Capital and Fidelity Bankers." Richard L. Fogel, Insurer Failures: Regulators Failed to Respond in Timely and Forceful Manner in Four Large Life Insurer Failures, GAO/T-GGD-92-43 (September 9, 1992), p. 6, available at http://www.gao.gov/assets/110/104752.pdf.

[117] *See* DeAngelo, H., L. DeAngelo and S. Gilson, The Collapse of First Executive Corporation: Junk Bonds, Adverse Publicity, and the 'Run on the Bank' Phenomenon, *Journal of Financial Economics* (1994), pp. 36, 287-336; Annual Statement of the Executive Life Insurance Company of Los Angeles in the State of California to the Insurance Department of the State of California for the year ended December 31, 1990; DeAngelo, H., L. DeAngelo and S. Gilson, Perceptions and the Politics of Finance: Junk Bonds and the Regulatory Seizure of First Capital Life, *Journal of Financial Economics* (1996), pp. 41, 475-511. Withdrawal rates at individual insurance companies can be significantly higher. For example, the annuity portfolio of Executive Life Insurance Company experienced a surrender rate of 42 percent for annuities (excluding single premium immediate annuities), and more than 40 percent of its annuities were single premium immediate annuities or structured settlements with no cash value. The text above cites the surrender rates for First Executive as a consolidated organization in order to compare it to AIG as a consolidated organization.

[118] Cohen, L. and C. Storch, The Run that Shook Mutual Benefit, *Chicago Tribune*, August 11, 1991, available at http://articles.chicagotribune.com/1991-08-11/business/9103270714_1_mutual-benefit-life-insurer-tax-sheltered; Berg, Eric N., Mutual Benefit Backs State Control, *The New York Times* (July 16, 1991), available at http://www.nytimes.com/1991/07/16/business/mutual-benefit-backs-state-control.html.

[119] The year before its failure, Executive Life had $13 billion in assets and was the 33rd largest life insurer in the United States. *See* The Collapse of Executive Life Insurance Co. and its Impact on Policyholders, hearing before the House Committee on Government Reform, 107th Congress (2002).

[120] *See* A.M. Best, A.M. Best's Stress Liquidity Ratio for U.S. Life Insurers, December 18, 2015, available at http://www3.ambest.com/ambv/ratingmethodology/OpenPDF.aspx?rc=197655. On a call with staff on June 8, 2017, A.M. Best analysts did not cite specific historical examples that were used to support the A.M. Best model assumptions, but did note that the company provides industry with periodic opportunities to comment on its model, which may indicate that industry participants view the model's assumptions as reasonable.

Table 12 below applies a range of sample surrender rates to AIG's current life and retirement portfolio, and also presents the aggregate amount of AIG's surrenderable life insurance and annuity liabilities. The second column applies the surrender rates experienced by AIG in 2008; the third column applies the withdrawal rates from the smaller insurance companies that failed in 1991; and the fourth column applies the assumptions in the A.M. Best liquidity model. The amount of surrenders based on these rates ranges from **[•]**.[121] Given the absence of comparable experiences to the material financial distress of a company the size of AIG and the differences in size, products, and regulatory environment among these examples, these figures are best viewed as potential outcomes, or as context for the range of potential life insurance and annuity policyholder withdrawals that could occur from an insurer experiencing material financial distress, rather than estimates of likely withdrawals from AIG.

[121] Applied to AIG's life and retirement portfolio as of December 31, 2012, the amount of surrenders based on these rates ranges from **[•]**.

Table 12: Policyholder Surrenders in Various Short-Term Stress Examples ($ Billions)

	Cash Surrender Value Available Immediately	AIG Q4 2008 Rates	1990-91 Insurer Failure Rates*	A.M. Best Model Rates
		Sample Surrender Rates		
		(90 days)	*(90 days)*	*(30 days)*
No or Minimal Surrender Value				
Term Life	[•]	[•]	[•]	[•]
Group and Credit Life	[•]	[•]	[•]	[•]
Payout Annuities	[•]	[•]	[•]	[•]
GICs	[•]	[•]	[•]	[•]
Total	[•]	[•]	[•]	[•]
Immediately Available Cash Surrender Value				
Life Insurance				
Whole	[•]	[•]	[•]	[•]
Universal	[•]	[•]	[•]	[•]
Universal (w/ secondary guar.)	[•]	[•]	[•]	[•]
COLI/BOLI	[•]	[•]	[•]	[•]
Total	[•]	[•]	[•]	[•]
Annuities				
Fixed Deferred (sold through banks)	[•]	[•]	[•]	[•]
Deferred (sold through agents)	[•]	[•]	[•]	[•]
Fixed Deferred Annuities	[•]	[•]	[•]	[•]
Fixed Index Annuities	[•]	[•]	[•]	[•]
Variable Annuities	[•]	[•]	[•]	[•]
Group Deferred	[•]	[•]	[•]	[•]
Fixed Deferred Annuities	[•]	[•]	[•]	[•]
Fixed Index Annuities	[•]	[•]	[•]	[•]
Variable Annuities	[•]	[•]	[•]	[•]
Total	[•]	[•]	[•]	[•]
Total Surrender Values	[•]	[•]	[•]	[•]
% Surrenderable / Total Reserves	[•]	[•]	[•]	[•]

Note: AIG Q4 2008 surrender rates are based on quarterly data. Based on available data, the 1990-91 insurer failure rates are based on varying periods (one year for First Executive, one week for First Capital, and six weeks for Mutual Benefit). Surrenders may occur more heavily near the start of the relevant period, which may indicate that the 90-day withdrawal rate for First Executive is underestimated and the 90-day withdrawal rates for First Capital and Mutual Benefit are overestimated. Additional data on these historical withdrawal rates is not available. Cash surrender values of variable annuities includes only general account liabilities.

* Figures in this column were calculated by applying the withdrawal rates experienced by First Executive, First Capital, and Mutual Benefit to AIG's annuity, life insurance, and retirement liabilities, respectively.

Policyholder Loans

In addition to policyholder surrenders and withdrawals as described above, AIG could face additional liquidity strain through the loan features that apply to many of its life insurance policies and annuity contracts. A sudden increase in loan requests by policyholders when the company is experiencing material financial distress could add to the liquidity strain.

As required under state law, life insurance products that accrue a cash value (e.g., universal and whole life insurance policies) offer policyholders loans against their outstanding policies.[122] Policy loans allow policyholders to borrow from the company using the cash value of their life insurance contract as collateral. Policy loans thereby offer policyholders the ability to access the full cash value of their policies in a manner that may not trigger the most significant disincentives associated with a full or partial surrender of their policies (such as income taxes or loss of benefits). Further, if policyholders have lost confidence in the ability of AIG to perform on future payment obligations due to the company's material financial distress, disincentives such as being charged interest on their loan may be secondary to the incentive to quickly reduce exposure to AIG. Policy loans may be an attractive first alternative to surrenders or may be used in combination with partial surrenders by policyholders who want to avoid or reduce the immediate consequences of an early surrender.

As of year-end 2016, of the **[•]** maximum potential cash value amounts policyholders could access in the form of loans, AIG had **[•]** in outstanding policy loans.[123] In comparison, as of year-end 2012, the maximum cash value that could be subject to liquidation through policy loans was roughly **[•]**.[124]

There are two potential mitigants to consider with respect to policy loans. State regulators may, subject to approval by state courts, impose temporary moratoriums on policy loans. In addition, AIG may have the right to defer policy loans for six months. However, as described above, such actions could cause significant concern about access to funds at other insurance companies with similar asset and product profiles, especially in a time of broader financial market stress.

5.3.2 AIG Investment Portfolio

If AIG were faced with a large volume of policyholder withdrawals or other liquidity demands, the company would be forced to liquidate some of its assets. Only assets within AIG's life and retirement subsidiaries and the parent holding company would generally be available to meet the liquidity needs arising from withdrawals from AIG life and retirement products; assets of AIG's other insurance subsidiaries, including its property and casualty insurers, cannot generally be transferred to meet the liquidity needs of the life insurance and annuity product lines of business without state regulatory approvals. Further, the transfer of assets and other types of transactions

---

[122] *See*, e.g., 18 Del. C. 2911(a) (2014); N.J. Stat. Ann. 17B:25-8 (West 2014); N.Y. Ins. Law 3203(8)(A) (McKinney 2014).
[123] AIG Response to OFR Request 14, Response Overview, as of December 31, 2016.
[124] AIG Response to OFR Request, document B.4.21, p. 1, as of December 31, 2012. **[•]**

across AIG's life and retirement legal entities in order to meet liquidity demands of another legal entity most likely would require prior state regulatory approval.

The following table provides detail on the composition of the investment portfolio of AIG's life and retirement subsidiaries as of year-end 2016, compared to year-end 2012.

Table 13: AIG Life and Retirement Subsidiaries' Cash and Invested Assets ($ Billions)

	2012		2016	
Asset	**Amount**	**% of Total**	**Amount**	**% of Total**
Highly Liquid				
Cash	**[•]**	**[•]**	**[•]**	**[•]**
Short-term Investments	**[•]**	**[•]**	**[•]**	**[•]**
U.S. Treasury and Agency Securities	**[•]**	**[•]**	**[•]**	**[•]**
U.S. Agency MBS	**[•]**	**[•]**	**[•]**	**[•]**
Total Highly Liquid Assets	**[•]**	**[•]**	**[•]**	**[•]**
Other Invested Assets				
Bonds	**[•]**	**[•]**	**[•]**	**[•]**
Investment Grade (BBB and Above)	**[•]**	**[•]**	**[•]**	**[•]**
Below Investment Grade	**[•]**	**[•]**	**[•]**	**[•]**
Mortgages and Other Loans	**[•]**	**[•]**	**[•]**	**[•]**
Real Estate	**[•]**	**[•]**	**[•]**	**[•]**
Common Stock	**[•]**	**[•]**	**[•]**	**[•]**
Other	**[•]**	**[•]**	**[•]**	**[•]**
Total Cash and Invested Assets	**[•]**	**[•]**	**[•]**	**[•]**

Source: Council Basis; AIG Response to OFR Requests 15a and 15b, General Account Breakout, as of December 31, 2016. AIG reported that a portion of the assets included in this table are encumbered due to trading activity, use as collateral in securities lending transactions, pledges in support of intercompany reinsurance agreements, and state deposits. Specifically, **[•]** are encumbered. To the extent that AIG's highly liquid assets are encumbered, the company may be forced to liquidate less-liquid assets; however, these volumes of encumbered assets are small relative to AIG's holdings of each asset class.

As shown in Table 14, the investment portfolio of AIG's life and retirement subsidiaries **[•]** since 2012. The total cash and invested assets of AIG's life and retirement subsidiaries **[•]** between 2012 and 2016, and the amount of highly liquid assets **[•]**. In addition, the percentage of AIG's portfolio invested in less-liquid assets, such as below investment grade bonds, mortgages and other loans, real estate, and other assets **[•]**.[125]

Factors affecting the liquidity of AIG's bond portfolio include the type of security, the securities' credit ratings, and whether the securities are publicly traded (in which case they are generally more liquid than privately traded bonds). As shown in Table 14, AIG's life and retirement subsidiaries held **[•]** of corporate bonds at the end of 2016, **[•]**. In addition, as of year-end 2016, AIG's life and retirement subsidiaries held **[•]** in relatively illiquid structured securities (including **[•]** of non-agency residential mortgage-backed securities (RMBS) and commercial

[125] AIG Response to OFR Requests 15a and 15b, General Account Breakout, as of December 31, 2016. **[•]**

mortgage-backed securities (CMBS) and **[•]** of collateralized debt obligations (CDOs) and other ABS) **[•]**.

Table 14: Composition of AIG Life and Retirement Long-Term Bond Portfolio ($ Billions)

	2012	2016	2012	2016	2012	2016
Bond	**Inv. Grade**		**Non-Inv. Grade**		**Total**	
Municipal Securities	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**
Nonagency RMBS	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**
Nonagency CMBS	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**
Foreign Government Securities	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**
Corporates	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**
[•]	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**
[•]	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**
CDOs/ABS	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**
[•]	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**
[•]	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**
Other (Treasuries, Agencies, Agency MBS)	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**
Total	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**

Source: AIG Response to OFR Requests 15a and 15b, General Account Breakout, as of December 31, 2016.

5.3.3 Potential Impact of AIG Asset Liquidation

As noted above, the broader market implications of asset liquidation depend on a number of factors, including the size and composition of the liquidated asset portfolio; any fire-sale discount, which depends on the risk and liquidity of the assets; and the extent to which other financial market participants may be forced or incentivized to sell similar assets. All other things being equal, the liquidation of larger or less-liquid asset portfolios poses greater risk of disrupting financial markets than the liquidation of smaller or more-liquid asset portfolios. In addition, fire sales of assets that are widely held, or commonly used as collateral in critical funding markets by large financial intermediaries, would generally have a greater impact on market function than fire sales of assets that are held or used more narrowly.

The order in which AIG may liquidate assets in the event of its material financial distress is a factor in the extent of any fire sale risk, but is subject to considerable uncertainties. AIG could liquidate a significant portion of its highly liquid assets rapidly, reducing the likelihood that the company would be forced to liquidate illiquid assets in the event of its material financial distress. However, in the event of the company's material financial distress, AIG may also be expected to seek to maintain risk-based capital ratios and other requirements above the level at which state regulatory authorities would be legally obligated to intervene. Doing so might require AIG to sell a mix of assets across a number of asset classes, rather than proceed with sales of assets in order from most liquid to least liquid. Further, in the event of a significant market disruption, there could be a meaningful first-mover advantage to selling less-liquid assets first. For example, markets for less-liquid assets, such as private and public corporate bonds and asset-backed securities, could be prone to disruption in the event that a forced seller liquidated a large portion of its portfolio of those assets. Given these potential discounts, in some circumstances AIG may be incentivized to sell a portion of its less-liquid assets first and to hold U.S. government securities and agency mortgage-backed securities, which tend to increase in value during a period of market turmoil. To the extent that AIG's highly liquid assets are encumbered (for example, under securities lending agreements or as collateral for FHLB loans), AIG would need to sell less-liquid assets to support surrender payments and other liquidity needs. Further, AIG's holdings of liquid assets could be reduced before the company enters material financial distress.

One approach to assessing the potential fire-sale impact of a rapid liquidation of assets by AIG is to compare the total amount of individual asset types in AIG's bond portfolio to the average daily trading volume (ADTV) of those assets on a market-wide basis. This ratio provides insight into the ability of the market to absorb AIG's assets if AIG were forced to liquidate, or if the market were concerned that the company might liquidate, its entire bond portfolio. As shown in Table 15, these ratios have **[•]**.

Table 15: AIG Life and Retirement Bond Portfolio Compared to ADTV ($ Billions)

	2012			2016		
Asset	**ADTV**	**AIG Life & Retirement Holding**	**AIG Holding / ADTV**	**ADTV**	**AIG Life & Retirement Holding**	**AIG Holding / ADTV**
Municipal Securities	11.3	**[•]**	**[•]**	10.6	**[•]**	**[•]**
Nonagency RMBS and CMBS	4.5	**[•]**	**[•]**	2.9	**[•]**	**[•]**
Nonagency ABS and CDOs	1.5	**[•]**	**[•]**	1.3	**[•]**	**[•]**
U.S. Investment Grade Corporates	11.9	**[•]**	**[•]**	16.1	**[•]**	**[•]**

Source: Securities Industry and Financial Markets Association (2012 and 2016 ADTVs), as of December 31, 2016, available at https://www.sifma.org/resources/research/us-bond-market-trading-volume and https://www.sifma.org/resources/research/us-corporate-bond-trading-volume; SNL Financial; AIG Response to OFR Request, document B.4.18, p. 2, as of December 31, 2012; AIG Response to OFR Requests 15a and 15b, General Account Breakout, as of December 31, 2016. Data prepared on the basis of SAP. Represents SNL Life Group aggregation, which may not include certain entities, such as captive reinsurers, that do not file public statutory financial statements. The 2016 amount for U.S. investment grade corporates is based on an estimate that 77.1 percent of AIG's life and retirement investment grade publicly traded corporate bond portfolio is composed of domestic bonds.

A refinement to this approach is to assess the potential effects if, as a result of policyholder withdrawals, AIG sells a pro rata portion of each segment of its bond portfolio, and compare the amount of each asset sold to the market-wide ADTV for that asset type. As shown in Table 16, in the first example of **[•]** of total asset sales, the amounts of municipal securities, nonagency RMBS and CMBS, nonagency ABS and CDOs, and U.S. investment grade corporate bonds that AIG would sell in this instance are **[•]**. Using the middle example of **[•]**, the highest ratio is **[•]**, and in the **[•]** example, the highest ratio is **[•]**. It is important to note, however, that these

ADTVs represent market activity in 2016; trading volumes could be significantly lower in a period of financial market stress.[126] In addition, the shorter the period is over which assets are sold, the greater is the potential market impact.

Table 16: Example Pro Rata Sales of AIG Life and Retirement Bond Portfolio Compared to ADTV ($ Billions)

	[•] of Sales Over 90 Days (Q4 2008 AIG Rate)		[•] of Sales Over 90 Days (Historical Analysis Rate)		[•] of Sales Over 30 Days (A.M. Best Rate)	
Asset*	**Amount**	**Amount / ADTV**	**Amount**	**Amount / ADTV**	**Amount**	**Amount / ADTV**
Municipal Securities	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**
Nonagency RMBS and CMBS	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**
Nonagency ABS and CDOs	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**
U.S. Investment Grade Corporates	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**

Source: Securities Industry and Financial Markets Association (2016 ADTVs); AIG Response to OFR Request, as of December 31, 2016. Historical rates based on information from Table 12.
* The columns in this table do not sum to **[•]** because the company would also be expected to use some of its cash and sell some of its U.S. Treasury and agency securities and short-term investments to satisfy these obligations. The company has an additional **[•]** that are not assumed to be sold in these calculations.

As noted above, the levels of forced asset sales could be more or less than shown in this table, but these figures provide indicative amounts. Among the additional factors that could affect the volume of AIG's asset sales are policyholder loans[127] and counterparties' terminations of AIG's repurchase agreement, securities lending, and derivatives arrangements. However, AIG's total liabilities arising from these activities are small compared to the liabilities arising from its withdrawable life insurance and annuity products. As discussed in section 5.2.1, the value of securities pledged by AIG to counterparties in securities lending and repurchase agreements decreased from $11 billion in 2012 to $4.2 billion in 2016. In addition, AIG has net derivatives liabilities of $2.0 billion, $2.2 billion of short-term debt, and **[•]** of GICs outstanding. Another measure of the decrease in capital markets exposures is AIG's estimate of the effects of a two-notch downgrade of its long-term senior debt ratings; the estimated amount of additional collateral the company would be required to post to counterparties decreased from $226 million in 2012 to $106 million in 2016.[128]

[126] Securities Industry and Financial Markets Association, U.S. Bond Market Trading Volume, available at http://www.sifma.org/uploadedFiles/Research/Statistics/StatisticsFiles/CM-US-Bond-Market-Trading-Volume-SIFMA.xls?n=61700; Securities Industry and Financial Markets Association, U.S. Corporate Bond Trading Volume, available at http://www.sifma.org/uploadedFiles/Research/Statistics/StatisticsFiles/Corporate-US-Corporate-Trading-Volume-SIFMA.xls?n=52215.
[127] During the financial crisis, the amount of policy loans outstanding at AIG Life Insurance & Retirement Services increased $1.0 billion during the fourth quarter of 2008, from $8.5 billion to $9.5 billion. AIG Financial Supplement for the Third Quarter 2008, p. 67; AIG Financial Supplement for the Fourth Quarter 2008, p. 66.
[128] AIG Annual Report on Form 10-K for the year ended December 31, 2012, p. 35; AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 22.

AIG has additional liquidity sources besides its highly liquid assets that could be used to satisfy some policyholder demands. The company has access to FHLB borrowing facilities. As of December 31, 2016, AIG had $735 million in advances outstanding, $429 million in funding agreements outstanding, and **[•]** of eligible collateral (including both pledged and available), compared to **[•]** of eligible collateral as of year-end 2012.[129] In addition, the company has noted in the past that during a stress scenario it could use premiums paid by policyholders to help offset cash demands, rather than investing these premiums as would be the normal practice.[130]

Another approach to analyzing the potential effects of the liquidation of assets by AIG is to assess the relative impact that fire sales by various financial institutions could have on other financial institutions.[131] This analysis attempts to assess the price effect of a firm's fire sale on the balance sheet of other firms holding the same or similar assets. The analysis starts by assuming a downward shock to the net worth of a firm or group of firms (an "equity shock"). Such a shock would raise the firm's leverage and decrease the equity cushion protecting the firm's creditors. In attempting to return to the company's original leverage, the firm would have to rapidly sell assets. Such a fire sale of assets could directly affect the balance sheets of firms that hold the same or similar assets, thus spreading the negative effects of its distress to other firms. As a robustness check, the analysis employs a second scenario, and assumes a downward shock to the value of assets of a firm or group of firms (an "asset shock").[132]

As noted above, a firm's asset size and leverage relative to other financial firms will affect the relative impact of a rapid liquidation of assets by that firm. For instance, a firm that is small relative to the market can sell a volume of assets that can be easily absorbed, but larger firms will necessarily sell larger volumes of assets that may not be so easily absorbed. In addition, the market impact of asset sales by a financial firm will also depend on the firm's asset profile because rapid fire sales of assets that are held by other financial firms would likely have a more pronounced effect on the financial system.

As of December 31, 2016, AIG ranked 11th and 19th, respectively, with respect to the impact of equity and asset shocks, out of a sample of financial companies, compared to 9th and 16th in 2012. (See Appendix B.) The driver of these changes in rankings is AIG's reduced size (modeled assets decreased 15 percent, reducing the quantity of assets AIG would have to sell); however, AIG has increased its holdings of certain less-liquid asset classes, for which asset sales

[129] AIG Response to OFR Request 12, FHLB Information; AIG Annual Report on Form 10-K for the year ended December 31, 2016, pp. 137-138; AIG Response to OFR Request 12, 201212 AIG.FHLB.Collateral.
[130] AIG Response to OFR Request, document B.2.4, p. 23; as of June 30, 2012.
[131] This analysis considers the framework proposed in Greenwood, Landier and Thesmar, 2012, "Vulnerable Banks," NBER WP 18537.
[132] While more leveraged firms must sell more assets in both scenarios, the asset shock scenario requires leveraged firms to sell significantly more assets to return to their steady state.

cause a greater price impact. AIG's rankings place it near PNC (10th) and Capital One (12th) for an equity shock and HSBC (18th) and Credit Suisse (20th) for an asset shock.[133]

These analyses indicate that there is not a significant risk that asset liquidation by AIG would disrupt trading or funding in key markets or cause significant losses or funding problems with other firms with similar holdings.

5.4 Critical Function or Service Transmission Channel

Under the critical function or service transmission channel, the Council considers whether a nonbank financial company may no longer be able or willing to provide a critical function or service that is relied upon by market participants or customers and for which there are no ready substitutes. In the case of AIG, the Council Basis stated that AIG had a significant presence in several lines of commercial insurance and that the negative effects of AIG's material financial distress could exacerbate conditions across the broader economy based on the role of AIG in these markets.[134]

In light of the changes discussed below, the critical function or service transmission channel no longer appears to contribute materially to the threat that material financial distress at AIG could pose to U.S. financial stability. This conclusion is based on the following factors:

- While AIG continues to be a market leader in commercial insurance, including in the excess and surplus market, its market share has declined nearly 40 percent since the Council's determination regarding AIG. Exceptions to this decline include the markets for directors and officers (D&O) and errors and omissions (E&O) insurance, but companies that lose coverage would still continue to operate while they worked to obtain a new insurance provider.
- AIG has exited two important financial markets by selling ILFC, a leading provider of commercial aircraft financing, and United Guaranty Corporation, a leading provider of private mortgage insurance. The divestiture of United Guaranty Corporation in particular reduced the risks AIG's material financial distress could pose through the critical function or service transmission channel.

---

[133] There are a number of other analyses that market participants use for measuring the importance and impact of certain firms. For example, one commonly used metric is S-risk, which has been used by a number of researchers as it combines key characteristics of systemic risk, including size, leverage, and interconnectedness. Prior to the crisis, AIG's S-risk looked much like the G-SIBs. Since 2011, AIG's S-risk has dropped sharply, although as late as year-end 2012, AIG placed ninth among U.S. financial companies (including bank holding companies). However, AIG's S-risk hasn't deviated substantially from 0 since 2013. Federal Reserve Board staff analysis based on Brownlees, Christian and Robert Engle (2016), SRISK: A Conditional Capital Shortfall Model of Systemic Risk, Working Paper, New York University, available at http://ssrn.com/abstract=1611229.
[134] Council Basis, p. 8.

5.4.1 Core Insurance Products

AIG remains a market leader in commercial insurance and serves many of the largest companies in the United States and the world, covering approximately 89 percent of companies in the Fortune Global 500.[135] However, AIG's U.S. commercial insurance market share decreased nearly 40 percent, from 7.2 percent in 2012 to 4.4 percent in 2016, and its ranking decreased from first to fourth overall, as shown in Table 17.[136] As of December 31, 2016, AIG had approximately $13 billion of direct written premiums in the United States, compared to $16 billion in 2012.[137]

Table 17: Top 10 U.S. Underwriters of Commercial Insurance ($ Billions)

Insurer	**Direct Written Premiums**	**Market Share (Percent)**
Travelers	16.3	5.7
Chubb	16.0	5.5
Liberty Mutual	14.6	5.1
AIG	12.6	4.4
Zurich	12.5	4.3
CNA Financial	9.5	3.3
Nationwide	8.3	2.9
Hartford	7.7	2.6
Berkshire Hathaway	7.5	2.6
Tokio Marine	6.2	2.2

Source: Statutory filings as aggregated by SNL Financial, as of December 31, 2016. Data are inclusive of the United States and U.S. territories, but exclusive of Canada or other foreign jurisdictions that may be included in NAIC filings.

Table 18 provides detail for those commercial line products for which AIG had more than $0.2 billion in direct written premiums in 2012. AIG's market share has decreased for many of these products, though in most of these cases it continues to be among the top three U.S. providers.

---

[135] AIG, Why AIG, April 1, 2016, available at http://www.aig.com/content/dam/aig/america-canada/us/documents/brochure/why-aig-infographic.pdf.

[136] SNL Financial, based on statutory filings prepared on the basis of SAP; figures exclude U.S. market share of non-U.S. companies. *See* Council Basis, p. 70. According to SNL Financial as of July 2017, AIG's 2012 ranking in the commercial insurance market was second ($15 billion in direct premiums written), which is slightly different than the figures in this table, which are based on the SNL methodology in place at the time of the final determination.

[137] Statutory filings as aggregated by SNL Financial, as of December 31, 2016.

Table 18: Selected Commercial Lines of Business in Which AIG Has Leading Market Share ($ Billions)

	Ranking		Direct Premiums Written		Market Share (Percent)	
	2012	**2016**	**2012**	**2016**	**2012**	**2016**
Aircraft	1	1	0.4	0.2	21.2	16.3
Allied Lines	3	3	0.9	0.6	7.0	5.3
Boiler & Machinery	2	2	0.3	0.2	19.7	12.0
Fire	2	1	1.5	1.3	11.9	11.0
Group A&H	1	1	1.4	0.8	30.8	17.7
Inland Marine	6	4	0.7	1.0	4.6	5.0
Medical Professional Liability	7	11	0.4	0.2	4.4	2.4
Mortgage Guaranty	3	-	0.8	0	19.2	0.0
Ocean Marine	1	1	0.3	0.4	11.9	13.2
Other Commercial Auto Liability	6	6	0.8	0.8	4.4	3.2
Other Liability	1	2	5.6	4.7	25.0	8.0
Warranty	1	9	0.5	0.1	20.9	2.3
Workers' Comp	4	9	2.7	1.9	5.5	3.2

Source: Statutory filings aggregated by SNL Financial, as of December 31, 2016.

AIG continues to provide significant loss capacity to some of the largest U.S. financial companies for their D&O and E&O coverages. These coverages are encouraged, but not required, by U.S. financial regulators. Implications of losing coverage include challenges in recruiting and retaining employees as well as potential coverage gaps when an institution switches insurance companies. However, companies that lose coverage could still continue to operate while they worked to obtain a new insurance provider.

Table 19: Major Financial Institutions' Exposures to AIG Through the Provision of Financial Lines Liability Policies ($ Millions)

Insured	Number of Policies	Coverage	Primary or Excess	Attachment Points Range (Average)	Policy Limits Range (Average)
U.S. Financial Institutions					
[•]	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**
Non-U.S. Financial Institutions					
[•]	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**

Source: AIG Response to OFR Request 3, FSOC Accounts Inforce as of 01.01.2017 Summary View w Limits info. **[•]**

With respect to AIG's excess and surplus business line, the Council Basis analyzed whether the complex nature of the policies and AIG's specialized underwriting expertise would make rapid replacement by its peers difficult, which could have implications for the broader U.S. economy.[138] In instances where policyholders would be able to readily switch to new carriers, the Council Basis considered whether a general shortfall in available surplus industry capital could lead to a tightening of policy coverage terms and conditions or large price increases for such specialized insurance policies.[139]

As of 2016, based on direct premiums written for excess and surplus lines, AIG's market share was 8.9 percent, second to Lloyds.[140] In comparison, in 2011 AIG ranked second, with a share of 17.2 percent. In 2016, AIG shrunk its excess and surplus business by reducing the amount of direct premiums written compared to 2015 by over $0.9 billion, a reduction of over 20 percent.[141] This pullback had little impact on the overall U.S. excess and surplus market; overall direct premiums written grew by 2.8 percent in 2016.

While AIG plays a leading role in a host of core commercial insurance markets, there are significant alternative providers across many of these businesses. As a result, in the event of AIG's material financial distress, other market participants should be able to absorb AIG's businesses in an orderly fashion.

5.4.2 Divestitures

In 2012, United Guaranty Corporation was the leading provider of private mortgage insurance (PMI) in the United States, supplying nearly 30 percent of total capital in the PMI industry[142] and representing **[•]** of the mortgage insurance market for new insurance written, which was roughly equivalent to **[•]** of first-lien mortgage loans issued in the United States.[143] At the time, if AIG were to have exited the mortgage insurance market, the ability of its private sector competitors to serve as immediate substitute providers could have been severely limited, which could in turn have reduced mortgage availability, especially for households seeking mortgages with small down payments. On December 31, 2016, AIG completed its divestiture of United Guaranty Corporation. That divestiture reduced the risks AIG's material financial distress could pose through the critical function or service transmission channel.[144]

In 2013, AIG's aircraft leasing company, ILFC, was an important provider of commercial aircraft financing in a concentrated market. As of December 31, 2012, ILFC owned 923 aircraft, managed another 96, and committed to purchase an additional 229 new aircraft, making it the

---

[138] Council Basis, pp. 74-76.
[139] Council Basis, pp. 74-76.
[140] A.M. Best, Surplus Lines Continue to Overcome Market Pressures, September 19, 2016, p. 9, available at http://www3.ambest.com/bestweek/DisplayBinary.aspx?TY=P&record_code=265317&URatingId=2792604.
[141] SNL, as of December 31, 2016.
[142] PMI industry capital estimated from SNL Financial statutory data, identifying sellers of private mortgage insurance by legal entity, and weighting each entity's respective capital allocated to PMI by the ratio of the entity's mortgage insurance direct written premium to the entity's total direct written premiums. This approach indicates that AIG's PMI capital is roughly $1.5 billion, compared to the industry's total of $5.1 billion.
[143] AIG Response to OFR Request, document C.2.3, pp. 1-2.
[144] *See* Council Basis, pp. 76-77.

second-largest aircraft lessor in the world, with a 25 percent market share.[145] AIG sold ILFC to AerCap in May 2014 and completed the sale of AerCap shares received in that sale on June 9, 2015.

5.4.3 Provider of Credit

The Council is required under the Dodd-Frank Act to consider "the importance of the company as a source of credit for households, businesses, and State and local governments and as a source of liquidity for the United States financial system."[146] The Council Basis observed that AIG's large balance sheet and long-term liabilities permit the company to provide substantial amounts of credit to the U.S. economy.[147] As of December 31, 2012, the company held (on a consolidated basis) approximately $152 billion of corporate debt securities, $36 billion of state and municipal bonds, $36 billion of RMBS, $12 billion of CMBS, and $21 billion of other structured securities including CDOs and ABS.[148] As of year-end 2012, AIG's direct commercial mortgage loan exposure totaled $14 billion.[149]

As of year-end 2016, AIG had approximately $134 billion of corporate debt securities, $25 billion of state and municipal bonds, $39 billion of RMBS, $15 billion of CMBS, and $23 billion of other structured products including CDOs and ABS.[150] AIG's direct commercial mortgage loan exposure totaled $25 billion;[151] because the commercial real estate loan market appears to be relatively unconcentrated and there are numerous commercial real estate loan holders, it should generally not be difficult for other firms to substitute for the lost capacity of AIG if it exited this market. Consistent with the findings in the Council Basis, the extent to which AIG provides credit to borrowers continues to be mixed, and these levels have generally decreased since 2012.[152]

The Council is also required under the Dodd-Frank Act to consider "the importance of the company as a source of credit for low-income, minority, or underserved communities, and the impact that the failure of such company would have on the availability of credit in such communities."[153] At the time of the final determination, AIG served as a source and facilitator of credit for low-income, minority, or underserved communities in the United States in the form of activities ranging from credit provision to insurance underwriting. These operations included providing private mortgage insurance to low-income borrowers through United Guaranty Corporation; financing and managing residences for low-income tenants as part of the SunAmerica Affordable Housing unit; and investing in certain types of municipal debt that provide credit to low- to moderate-income housing projects in AIG Asset Management Group.

---

[145] ILFC Annual Report on Form 10-K for the year ended December 31, 2012, p. 42; Council Basis, p. 78.
[146] Dodd-Frank Act section 113(a)(2)(D), 12 U.S.C. § 5323(a)(2)(D).
[147] Council Basis, p. 14.
[148] AIG Annual Report on Form 10-K for the year ended December 31, 2012, p. 240.
[149] AIG Annual Report on Form 10-K for the year ended December 31, 2012, p. 149.
[150] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 195.
[151] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 114.
[152] *See* Council Basis, pp. 78-80.
[153] Dodd-Frank Act section 113(a)(2)(E), 12 U.S.C. § 5323(a)(2)(E).

As noted above, AIG completed its divestiture of United Guaranty Corporation on December 31, 2016. AIG Affordable Housing continues to be one of the largest apartment owners in the United States, with approximately 100,000 multi-family units in over 800 properties in 48 states, Puerto Rico, and the U.S. Virgin Islands.[154] AIG does not appear to play an important role as a source of credit for low-income, minority, or underserved communities, and therefore it does not appear that AIG's material financial distress would have a material impact on the availability of credit in such communities.

6. COMPLEXITY AND RESOLVABILITY

The Council considers whether any threat that material financial distress at AIG could pose to U.S. financial stability could be mitigated or aggravated by its complexity, the opacity of its operations, or the difficulty of resolving it.

At the time of its determination, the Council concluded that the complexity and interconnectedness of AIG, including its operations in all 50 states and numerous foreign countries, could increase the obstacles to the company's rapid and orderly resolution and delay or complicate steps to resolve AIG in an orderly fashion that would minimize disruption to financial stability. The Council also noted that a coordinated resolution of AIG would require accommodations with local supervisory authorities, as well as cooperation among a number of home and host jurisdiction supervisory authorities and courts. The Council Basis noted that while AIG had significantly simplified and restructured its core operations after expanding into non-insurance businesses prior to the financial crisis, it remained very complex with meaningful non-insurance-related exposures.[155] The Council found that a number of AIG entities provided capital support and cross-guarantees for each other and that, as a result, distress at one part of AIG could spread to other parts of the organization. The Council also found that the interstate and cross-border complexities involved in liquidating a large financial organization, particularly with insurer and non-insurer subsidiaries operating in multiple states and countries, increased the risk that AIG's material financial distress could pose a threat to the financial stability of the United States. The Council concluded that these factors, in the context of AIG's size and complex structure, increased the obstacles to a rapid[156] and orderly resolution of the company and significantly decreased the likelihood of preserving its franchise value in a recovery or resolution scenario.[157]

---

[154] AIG Global Real Estate, Property Portfolio, available at http://www.aig.com/aig-global-real-estate/property-portfolio#accordion-child_ps_accordion_850294862_1; *see also* National Multi-Housing Council, NMHC Largest Apartment Syndicators (2017), available at https://www.nmhc.org/Top-Syndicators.

[155] The company's divestitures, wind-downs, and changes in its strategy, funding profile, and global footprint since the financial crisis were described in the Council Basis. *See* Council Basis, pp. 19-24.

[156] As the Council Basis notes, some assets and businesses by their nature take longer to wind down. "Rapid" as applied to these assets and businesses refers to the ability to timely implement a plan for resolving the company that calms markets and participants. By design, the winding down of a failed insurer's estate may take several years to accomplish while policyholder liabilities are paid off as they come due. *See* Council Basis, p. 12.

[157] Council Basis, p. 10.

Since December 2012, AIG has undertaken a number of divestitures and asset sales with a total transaction value of approximately **[•]**.[158] These transactions contributed to a 9 percent reduction of AIG's total asset size, from $549 billion as of year-end 2012 to $498 billion as of year-end 2016.[159] Completed divestitures since the Council's final determination regarding AIG include:

- United Guaranty Corporation (a private mortgage insurance company), completed in December 2016 ($3.3 billion);[160]
- AIG interests in Ascot Underwriting Holdings Ltd. and related subsidiaries Ascot Corporate Name Ltd. and **[•]** ($1.1 billion);[161]
- AIG Advisor Group (which included four broker-dealers: FSC Securities Corporation, Royal Alliance Associates, SagePoint Financial, and Woodbury Financial Services) (**[•]**);[162]
- All operations in Central America (El Salvador, Guatemala, Honduras, and Panama) (**[•]**);[163]
- People's Insurance Company (Group) of China Limited and Property and Casualty Company Limited (collectively known as PICC) in China (**[•]**);[164]
- **[•]**;[165]
- AIG Fuji Life Insurance Company, Ltd. in Japan ($0.3 billion);[166] and
- AIG's operations in Hungary, the Czech Republic, Slovakia, Turkey, and Bulgaria ($0.2 billion).[167]

AIG's anticipated divestiture of ILFC was noted in the Council Basis.

Although reduced, AIG continues to have an extensive and complex global footprint. In 2016, AIG provided products and services to customers in more than 80 countries and jurisdictions, compared to 130 countries at the time of designation.[168] AIG's domestic insurance subsidiaries are licensed to operate in all 50 states, the District of Columbia, and the five U.S. territories.

---

[158] AIG Response to OFR Request 22, Significant Divestitures, pp. 1-2. This amount includes the sale of ILFC for consideration of approximately $7.6 billion, which was noted in the Council Basis.
[159] AIG Submission, p. 5; AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 34.
[160] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 176.
[161] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 176; AIG Response to 2017 OFR Request 22, Significant Divestitures, p. 1.
[162] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 55; AIG Press Release, AIG Completes Sale of Advisor Group to Lightyear Capital and PSP Investments (May 6, 2016).
[163] AIG Press Release, AIG ASSA to Acquire AIG Operations in Central America (October 15, 2015).
[164] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 134; AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 65; AIG Response to 2017 OFR Request 22, Significant Divestitures, p. 2.
[165]AIG Response to 2017 OFR Request 22, Significant Divestitures, p 2.
[166] AIG Annual Report on Form 10-K for the year ended December 31, 2016, pp. 185, 189.
[167] **[•]** AIG Quarterly Report on Form 10-Q for quarter ended June 30, 2017, p. 13; AIG Submission, p. 4; AIG Response to 2017 OFR Request 22, Significant Divestitures, p. 1-2.
[168] AIG Annual Report on Form 10-K for the year ended December 31, 2016, pp. 3, 5; AIG Annual Report on Form 10-K for the year ended December 31, 2012, p. 2.

AIG has approximately 56,400 employees in approximately 180 offices in the United States and approximately 500 offices outside the United States. [169] The percentage of its business conducted outside the United States has not changed significantly (31 percent of 2016 revenues, compared to 30 percent in 2012); similarly, approximately 11 percent of AIG's consolidated assets are located outside the United States and Canada, the same percentage as in 2012.[170] Through divestitures, AIG has reduced the scope of its operations. In particular, it has recently sold operations in **[•]**.[171]

AIG has reduced its multi-jurisdictional operations, simplified its legal structure, and reduced its size and global footprint, but AIG continues to be a complex, highly interconnected organization. AIG's multi-jurisdictional operations, the various regulatory regimes under which the organization conducts business, its centralized liquidity and funding models, and its inter-company arrangements continue to contribute to its complexity and could pose obstacles to its orderly resolution. However, in light of the conclusions set forth in section 5 regarding the transmission channel analysis, the difficulty to resolve AIG and the potential for the company's disorderly resolution do not lead to a conclusion that AIG's material financial distress could pose a threat to U.S. financial stability.

Legal Structure

The following chart reflects AIG's legal entities and branches by organizational unit and the legal entities AIG identifies as material.

Table 20: Simplified Organizational Chart with Number of Subsidiaries and Branches

[•]

Note: The number of subsidiaries and branches is indicated in parentheses. **[•]**
Source: AIG Response to OFR Request 18, Organizational Chart.

[169] AIG Annual Report on Form 10-K for the year ended December 31, 2016, pp. 8, 29. In 2012, AIG and its 3,000 subsidiaries globally had over 400 U.S. offices and approximately 600 foreign offices, with 63,000 employees. AIG Annual Report on Form 10-K for the year ended December 31, 2012, pp. 29, 44; Council Basis, p. 3.
[170] AIG Annual Report on Form 10-K for the year ended December 31, 2016, pp. 6, 29; AIG Annual Report on Form 10-K for the year ended December 31, 2012, pp. 44, 227.
[171] AIG Response to 2017 OFR Request 22, Significant Divestitures, pp. 1-2.

As of year-end 2012, AIG had approximately **[•]** legal entities and branches.[172] It now has approximately **[•]**.[173] Additionally, the number of active legal entities managed, controlled or wholly owned by AIG (excluding special-purpose vehicles that typically hold pools of assets) has **[•]**.[174] **[•]**[175]

AIG has also **[•]** the number of entities it considers material since 2012. The company identified **[•]** material legal entities including its parent holding company, compared to **[•]** in 2012.[176] **[•]**[177]

Funding and Operational Structures

[•][178] As reflected in Table 21, AIG's available liquidity sources totaled $13 billion in 2016,[179] a decrease of $3.2 billion (20 percent) from 2012.[180]

Table 21: AIG Parent's Liquidity ($ Billions)

	2012	**2016**
Parent Liquidity		
Cash and short-term investments	12.6	4.0
Unencumbered fixed maturity securities	0.0	4.5
Total AIG Parent Liquidity	**12.6**	**8.4**
Credit Facilities		
Available under syndicated credit facility	3.0	4.5
Available under contingent liquidity facility	0.5	0.0
Total Credit Facilities	**3.5**	**4.5**
Total AIG Parent Liquidity Sources	**16.1**	**12.9**

Source: AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 137; AIG Annual Report on Form 10-K for the year ended December 31, 2012, p. 125.

AIG's parent company, AIG, Inc., continues to depend on dividends, distributions, and other payments from its subsidiaries to fund payments due on its obligations. During 2016, the parent company received $7.5 billion in dividends and loan repayments from its subsidiaries.[181] Of this amount, $2.2 billion was dividends in the form of cash and fixed-maturity securities from the property and casualty insurance companies, $4.7 billion was dividends and loan repayments in the form of cash and fixed-maturity securities from the life insurance companies, and $0.6 billion was dividends in the form of cash and fixed-maturity securities from United Guaranty

[172] Council Basis, p. 87.
[173] AIG Response to OFR Request 18, Organizational Chart.
[174] AIG Response to OFR Request 22, Response Overview.
[175] AIG Submission, July 17, 2017.
[176] AIG Response to OFR Request 18, Organizational Chart; Council Basis, p. 88.
[177] **[•]**
[178] Council Basis, pp. 89-92.
[179] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 137.
[180] AIG Annual Report on Form 10-K for the year ended December 31, 2012, p. 125.
[181] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 134.

Corporation.[182] The $7.5 billion AIG received from its subsidiaries in 2016 was an increase of 21 percent over the amounts received in 2012. In 2012, AIG received $5.2 billion in cash from subsidiaries and another $1 billion in non-cash dividends in the form of municipal bonds.[183] However, AIG's subsidiaries continue to invest in less-liquid securities, **[•]**. AIG's investments in these assets had a fair value of $58 billion as of December 31, 2016,[184] an increase of 18 percent **[•]**.[185]

Intercompany Lending. As shown in Table 22 and Table 23, intercompany loans between AIG entities **[•]**.

Table 22: AIG, Inc.'s Loans to Subsidiaries ($ Millions)

			Facility Amounts				
Lender	**Borrower**	**Currency**	**Limit**	**Outstand.**	**Available**	**# of loans**	**Secured or Unsecured**
[•]	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**
Total			**[•]**	**[•]**	**[•]**	**[•]**	

Source: AIG Response to OFR Request 20, Intercompany Memo, p. 11. As of December 31, 2016.

Table 23: AIG, Inc.'s Loans from Subsidiaries ($ Millions)

			Facility Amounts			
Lender	**Borrower**	**Currency**	**Limit**	**Outstand.**	**Available**	**Secured or Unsecured**
[•]	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**	**[•]**
Total			**[•]**	**[•]**	**[•]**	

Source: AIG Response to OFR Request 20, Intercompany Memo, p. 14. As of December 31, 2016.

AIG, Inc. has **[•]** its outstanding loans to its subsidiaries by **[•]**.[186] **[•]** As of December 31, 2016, outstanding loan amounts due from AIG, Inc. to its subsidiaries totaled **[•]**.[187]

[•][188]

Centralized Derivatives Management. **[•]** continues to serve as the derivatives intermediary for AIG using International Swaps and Derivatives Association, Inc. (ISDA) agreements that typically include collateral posting requirements.[189] AIG has $2.0 billion in fair value of derivatives liabilities, after subtracting counterparty netting and cash collateral, as of December

[182] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 134.
[183] AIG Annual Report on Form 10-K for the year ended December 31, 2012, p. 121.
[184] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 21.
[185] AIG Annual Report on Form 10-K for the year ended December 31, 2012, p. 35.
[186] Council Basis, p. 90; AIG Response to OFR Request 20, Intercompany Memo.
[187] Council Basis, p. 90.
[188] AIG Response to OFR Request 20, Intercompany Memo p. 14.
[189] AIG Response to 2017 OFR Request 20, Intercompany Memo, p. 10.

31, 2016, a reduction of 50 percent since 2012.[190] Total collateral posted by AIG to third parties for derivatives transactions was $4.5 billion, and collateral obtained by operations from third parties was $1.5 billion as of December 31, 2016.[191] The amount of collateral posted and obtained from third parties is nearly unchanged since 2012.[192]

AIG estimates that as of December 31, 2016, based on its outstanding financial derivative transactions, a downgrade of long-term senior debt ratings to BBB+, BBB, or BBB– by Standard & Poor's Financial Services or a downgrade to Baa2 or Baa3 by Moody's Investors' Service would permit counterparties to make additional collateral calls and permit certain counterparties to elect early termination of contracts, resulting in corresponding collateral postings and termination payments in the total amount of up to approximately $106 million—a reduction of 53 percent since 2012.[193]

Variable Interest Entities. AIG continues to make passive investments in debt securities and equity interests issued by variable interest entities (VIEs) through its insurance companies.[194] The Council Basis explained that AIG's use of VIEs resulted in a more complex capital structure and balance sheet.[195] In 2016, AIG adopted new accounting guidance that caused an increase in the number of entities classified as VIEs.[196] As of December 31, 2016, the maximum exposure to loss was $12 billion for on-balance sheet VIEs and $3.2 billion for off-balance sheet VIEs,[197] compared to $2.4 billion for on-balance sheet VIEs and $0.2 billion for off-balance sheet VIEs as of December 31, 2012.[198]

Capital Maintenance Agreements, Financial Guarantees, and Support Arrangements. **[•]**[199] **[•]**[200] **[•]**

---

[190] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 234.
[191] AIG Annual Report on Form 10-K for the year ended December 31, 2016, pp. 234-235.
[192] AIG Annual Report on Form 10-K for the year ended December 31, 2012, p. 278. Collateral posted by operations to third parties was $4.5 billion, and collateral obtained by operations from third parties was $1.4 billion as of December 31, 2012.
[193] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 237; AIG Annual Report on Form 10-K for the year ended December 31, 2012, p. 35.
[194] Most of these investments are issued by third-party-managed hedge and private equity funds. AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 232.
[195] Council Basis, p. 92.
[196] AIG Annual Report on Form 10-K for the year ended December 31, 2016, pp. 178, 232.
[197] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 232.
[198] AIG Annual Report on Form 10-K for the year ended December 31, 2012, p. 274.
[199] A capital maintenance agreement is a legally enforceable commitment by AIG, Inc. or another AIG affiliate to unconditionally provide a sufficient amount of capital to maintain the capital level of an insurance company subsidiary at the threshold level set forth in the agreement. In some instances, a capital maintenance agreement requires the insurance company subsidiary to pay dividends to AIG, Inc. or the relevant AIG affiliate of any capital that is in excess of the target minimum level, subject to regulatory approvals and approvals by the applicable subsidiary's board of directors.
[200] AIG Response to OFR Request 20, Intercompany Memo, p. 2.

Table 24: AIG Capital Maintenance Agreements

From	To	Description
[•]	**[•]**	**[•]**

Source: AIG Response to OFR Request, Table 30 Update for 2016.

Table 25: Financial Guarantees and Support Arrangements

From	To	Description
[•]	**[•]**	**[•]**

Source: AIG Response to OFR Request, Table 33 Update For 2016.

The Combined Pool. AIG's Property & Casualty Combined Pool creates an interconnection and interdependency between entities, which if disrupted, could materially affect funding and continued operations during resolution. Since the Council's final determination, AIG has combined its pools; however, the number of entities participating in the remaining combined pool has increased, and the combined pool still contributes to enterprise complexity through reinsurance arrangements. Continuation of the combined pool's operations would require regulatory cooperation among multiple states, and if regulatory intervention is initiated by one state, this could lead to disorderly resolution. In addition, orderly resolution is dependent on non-insurance affiliates providing claims processing and back office support. If these entities are in a bankruptcy process, access to the services they provide may not be available, which may increase the likelihood of a disorderly resolution.

International Holding Company. In 2016, AIG established a new Swiss holding company, AIG International Holdings, GmbH, which is intended to be the ultimate holding company for all of AIG's non-U.S. entities. AIG is in the process of transferring its non-U.S. subsidiaries to this new entity and anticipates that this restructuring, once implemented, would simplify AIG's organizational structure and facilitate the optimization of its international capital strategy.[201] However, the impact of this restructuring cannot be assessed until it is completed.

AIG's operations have become somewhat less reliant on interaffiliate relationships across legal and jurisdictional boundaries. In the event of AIG's material financial distress, legal entities critical to the continuation of operations could lose access to internal sources of funding, thereby leading to a loss of liquidity and possibly either insolvency or seizure by a regulator. Capital maintenance agreements, inter-affiliate guarantees, intercompany reinsurance arrangements, and pooling mechanisms could still transmit stress to the holding company and among AIG affiliates in resolution.

[201] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 138.

Obstacles to an Orderly Resolution

The Council Basis concluded that the complexity and interconnectedness of AIG, including its domestic and global operations, could increase the obstacles to the company's rapid and orderly resolution.[202] Although AIG now operates in fewer jurisdictions and there would be fewer regimes involved in a resolution should one be necessary, it continues to operate in over 80 countries and jurisdictions, in all 50 states, the District of Columbia, and the five U.S. territories. AIG's diverse business activities continue to fall under the authority of numerous state, federal, and non-U.S. regulators. As noted in the Council Basis, an insolvent parent would be resolved under the U.S. Bankruptcy Code, while the U.S. insurance companies would be resolved in state courts in the state of domicile; AIG's entities are domiciled in six states and Puerto Rico.[203] Each state where AIG provides insurance operates a life insurance guaranty fund and at least one property and casualty guaranty fund to pay the outstanding claims of the insolvent insurer's policyholders. In addition, AIG's subsidiaries include broker-dealers and investment advisors that are regulated by the SEC. If necessary, AIG's broker-dealers and AIG Federal Savings Bank would be resolved under the Securities Investors Protection Act and the Federal Deposit Insurance Act, respectively. Further, 31 percent of AIG's operating revenues are derived from non-U.S. countries and are subject to unique bankruptcy and resolution regimes.[204]

As a result, a coordinated resolution of AIG would require accommodations with local supervisory authorities, as well as cooperation among a number of home and host jurisdiction supervisory authorities and courts.[205] The Council Basis stated that AIG had four major non-U.S. jurisdictions: Japan, the United Kingdom, Bermuda, and Singapore.[206] As shown in Table 26, these four jurisdictions continue to be AIG's major non-U.S. jurisdictions.[207]

Table 26: AIG's Major Non-U.S. Jurisdictions

Major Jurisdiction	**AIG Entities**	**Regulator**
[•]	**[•]**	**[•]**

Source: AIG Response to OFR Request 18, Organizational Chart_VF, p. 3; Council Basis, p. 99; SNL Financial, as of December 31, 2016.

To identify and foster the cross-border coordination and cooperation that would be needed in a resolution of AIG, a crisis management group, comprised of members from the United States, Japan, Singapore, and the United Kingdom was established in 2014 and convened annually thereafter. In addition, the Financial Stability Board established an insurance cross-border crisis

[202] Council Basis, p. 10.
[203] Council Basis, p. 93.
[204] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 6.
[205] Council Basis, p. 11.
[206] Council Basis, p. 99.
[207] AIG Response to OFR Request 18, Organizational Chart_VF, p. 3; Council Basis, p. 99; SNL Financial, as of December 31, 2016. AIG identified Japan, United Kingdom, and Singapore as jurisdictions where AIG had material legal entities. The Council Basis previously identified Bermuda as a major non-U.S. jurisdiction, and AIG's Bermuda entities continue to have in excess of $10 billion in assets.

management group in 2013 to provide a global forum for insurance sector resolution authorities to discuss resolution-related challenges and mitigants. Despite these efforts, there is no global regulatory framework for the resolution of cross-border financial groups. Any resolution of AIG would continue to require accommodations with local supervisory authorities and cooperation among a number of home and host jurisdiction supervisory authorities and courts. Adverse effects resulting from any one country may affect AIG's liquidity and financial condition in another country. Ring-fencing or seizure could follow from an AIG failure.[208] Some countries' legal requirements govern the constitution of technical reserves and may hinder repatriation of profits and assets. While AIG has reduced the number of non-U.S. jurisdictions it operates in, the lack of a global framework for resolution may represent an obstacle to AIG's rapid and orderly resolution.

7. EXISTING REGULATORY SCRUTINY

7.1 Regulatory Developments

AIG became subject to Board of Governors supervision and enhanced prudential standards as a result of the Council's final determination. In 2016, the Board of Governors published several proposals that, if adopted, would apply to AIG, including (1) an advance notice of proposed rulemaking inviting comment on conceptual frameworks for capital standards;[209] (2) a proposed rule to apply enhanced prudential standards pursuant to section 165 of the Dodd-Frank Act; [210] and (3) a reporting proposal to collect financial data on a consolidated basis.[211]

AIG states that regulatory scrutiny has increased since the financial crisis and since the final determination.[212] Specifically, AIG points to the NAIC Solvency Modernization Initiative and the evolution of supervisory colleges, the introduction of the Enterprise Risk Report, the development of revised model laws that have been adopted by many states, and the implementation of the Own Risk and Solvency Assessment (ORSA).[213] AIG also states that regulatory scrutiny in non-U.S. jurisdictions where AIG has a substantial presence, such as the United Kingdom and Japan, has also increased, as well as in the European Union through the Solvency II Directive.[214]

In addition, the NAIC has initiated a macroprudential project that includes enhancing the regulation of liquidity risk for large life insurance companies through stress testing and other measures. The NAIC has stated that the objective of this project is to evaluate existing

[208] Council Basis, p. 93.
[209] Board of Governors, Capital Requirements for Supervised Institutions Significantly Engaged in Insurance Activities, 81 Fed. Reg. 38631 (June 14, 2016).
[210] Board of Governors, Enhanced Prudential Standards for Systemically Important Insurance Companies, 81 Fed. Reg. 38610 (June 14, 2016).
[211] Board of Governors, Proposed Agency Information Collection Activities; Comment Request, 81 Fed. Reg. 24097 (April 25, 2016).
[212] AIG Submission, p. 8.
[213] AIG Submission, p. 8.
[214] AIG Submission, p. 8.

regulatory tools and data relating to liquidity risk, identify any gaps, and propose enhancements.[215] Specific areas of focus in addition to liquidity stress testing include the liquidity characteristics of insurers' liabilities and liquidity risk management. This effort may ultimately lead to beneficial changes that enhance the regulatory oversight of liquidity risks at large life insurance companies. The Council intends to monitor the effectiveness of any resulting reforms in addressing risks to U.S. financial stability.

As described in section 4, since the financial crisis, AIG has divested certain non-insurance assets; therefore, the company's U.S. operations are generally subject to the state-based insurance regulatory regime, which focuses on the solvency of the company and policyholder protection (including risk-based capital, investment limitations, securities lending reporting and regulation, hazardous financial condition, and insurance receivership). Certain developments since the final determination, described below, represent enhancements to the regulation and supervision of AIG and may reduce some of the risks the company could pose.

7.1.1 Holding Company Act, Enterprise Risk Report and Own Risk and Solvency Assessment

From 2008 until 2012, the NAIC engaged in the Solvency Modernization Initiative, a self-examination to update the U.S. insurance solvency regulation framework.[216] The Solvency Modernization Initiative addressed all aspects of the financial condition of an insurer, not only solvency-related areas. The Solvency Modernization Initiative focused on capital requirements, international accounting, insurance valuation, reinsurance, and group regulatory issues.

As part of the Solvency Modernization Initiative, the NAIC has adopted revisions to the NAIC Insurance Holding Company System Regulatory Act (the Model Holding Company Act) and the Insurance Holding Company System Model Regulation. The revised models include the requirement that the ultimate controlling person of a U.S. insurer file an annual enterprise risk report with the lead state of the insurer identifying risks likely to have a material adverse effect upon the financial condition or liquidity of the insurer or its insurance holding company system as a whole. All of the states where AIG has domestic insurers have enacted a version of the revised Model Holding Company Act, including the enterprise risk reporting requirement.[217]

Also as part of the Solvency Modernization Initiative, the NAIC has adopted the Risk Management and ORSA Model Act.[218] The model act defines an ORSA as "a confidential internal assessment, appropriate to the nature, scale, and complexity of an insurer or insurance group, conducted by that insurer or insurance group of the material and relevant risks associated

[215] NAIC, Financial Stability Task Force Proposal for Liquidity Assessment Subgroup, available at http://naic.org/meetings1708/cmte_ex_financial_stability_tf_2017_summer_nm_materials_3.pdf?150228654254.
[216] *See* NAIC, Solvency Modernization Initiative, available at http://www.naic.org/index_smi.htm; *see also* NAIC, Solvency Modernization Initiative Roadmap (December 31, 2012), available at http://www.naic.org/documents/index_smi_roadmap_121231.pdf.
[217] *See* AIG Annual Report on Form 10-K for the year ending December 31, 2016, p. 15.
[218] *See* NAIC, Own Risk and Solvency Assessment (ORSA), available at http://www.naic.org/cipr_topics/topic_own_risk_solvency_assessment.htm.

with the insurer or insurance group's current business plan, and the sufficiency of capital resources to support those risks."[219] The ORSA's purpose is to enhance a firm's ability to identify and mitigate enterprise risks. **[•]**[220] The ORSA self-assessment is not intended to mitigate risks the company's material financial distress could pose to U.S. financial stability, but it may be useful in identifying enterprise risks at AIG.

7.1.2 Supervisory Colleges

One element of the Solvency Modernization Initiative, known as a "supervisory college," applies to U.S.-domiciled insurance holding companies with operations in multiple jurisdictions. In general, supervisory colleges are joint meetings of interested U.S. and foreign regulators with company officials, including detailed discussions of financial data, corporate governance, and enterprise risk management functions. State insurance regulators may convene supervisory colleges on a periodic basis. These colleges allow for the exchange of supervisory concerns among regulators and provide insights into the risks within an organization that may need to be the subject of ongoing monitoring or other regulatory action. Although a supervisory college may allow for regulators to gain information about the various parts of the organization, and may enhance communication of confidential supervisory concerns across an enterprise, it is not equivalent to the supervisory and regulatory authorities to which a nonbank financial company subject to supervision by the Board of Governors is subject, nor does it have direct supervisory authority over the company's non-insurance subsidiaries.

7.1.3 International Developments

Regarding the European Union, AIG points to the Solvency II Directive, which became effective in January 2016, as an example of increased regulatory scrutiny.[221] Solvency II is a European Union Directive that replaced 14 existing insurance directives and introduced the first harmonized, risk-based regulatory regime in the EU.[222] Solvency II focuses on three pillars of supervision: (1) quantitative requirements, including valuation of assets and liabilities; (2) risk management and governance; and (3) transparency.[223] In 2016, AIG's European operations, which include property and casualty companies associated with AIG Europe Limited, generated revenues of $5.4 billion, or 11 percent of AIG's operating revenue.[224]

With respect to Japan, since the final determination, the Japan Financial Services Agency has taken steps to enhance its supervisory framework to address risks associated with financial institutions in Japan and to align domestic financial regulation with international standards.

---

[219] NAIC, Risk Management and Own Risk and Solvency Assessment Model Act, section 2C.
[220] **[•]**
[221] AIG Submission, p. 8.
[222] European Insurance and Occupational Pensions Authority, Solvency II, available at https://eiopa.europa.eu/regulation-supervision/insurance/solvency-ii.
[223] European Insurance and Occupational Pensions Authority, Solvency II, available at https://eiopa.europa.eu/regulation-supervision/insurance/solvency-ii.
[224] AIG Annual Report on Form 10-K for the year ended December 31, 2016, p. 6.

These international developments do not materially affect the Council's conclusions regarding the potential effects of AIG's material financial distress on U.S. financial stability.

7.2 Regulator Consultations

On April 28, 2017, the Nonbank Designations Committee consulted with staff from the New York Department of Financial Services, the Texas Department of Insurance, and the Pennsylvania Insurance Department regarding certain state regulatory and supervisory developments. On May 1, 2017, the Nonbank Designations Committee consulted with staff from the Federal Reserve Bank of New York with supervisory responsibilities for AIG. On May 19, 2017, the Nonbank Designations Committee consulted with staff from the Board of Governors and the FDIC and discussed the resolution plan submitted by AIG in December 2015. Matters raised during these consultations are addressed herein where relevant.

8. CONCLUSION

Based on the Council's analysis of AIG and changes since July 2013 that could be material to the Council's conclusions, and in light of the statutory considerations, the Council has rescinded its final determination that material financial distress at AIG could pose a threat to U.S. financial stability and that AIG shall be supervised by the Board of Governors and be subject to enhanced prudential standards.

APPENDIX A: CONDENSED CONSOLIDATED BALANCE SHEET ($ BILLIONS)

	12/31/2007	12/31/2012	12/31/2016
<u>Assets</u>			
Cash and Investments:			
Equity Instruments	45.6	3.9	2.6
Fixed Maturities	545.2	294.5	255.5
Cash and Cash Equivalents	2.3	1.2	1.9
Other Investments	238.7	79.3	70.3
Total Cash and Investments	**831.8**	**378.9**	**330.2**
Accrued Investment Income	6.6	3.1	2.5
Reinsurance Assets	23.1	25.6	21.9
Premiums Receivable	18.4	14.0	10.5
Deferred Acquisition Costs	43.9	8.2	11.0
Total Other Assets	45.9	61.6	39.2
Separate Account Assets	78.7	57.3	83.0
Total Assets	**1,048.4**	**548.6**	**498.3**
<u>Liabilities:</u>			
Policy Reserves:			
P&C Loss and LAE Reserves	85.5	88.0	77.1
L&H Policy Reserves	407.4	169.8	178.4
Unearned Premiums Reserve	27.7	22.5	19.6
Total Policy Reserves	**520.6**	**280.3**	**275.1**
Total Reinsurance Liabilities	7.4	NA	NA
Senior Debt	175.8	37.5	29.7
Subordinated Debt	8.6	11.0	1.2
Total Other Liabilities*	150.9	63.5	32.4
Separate Account Liabilities	78.7	57.3	83.0
Total Liabilities	**942.0**	**449.6**	**421.4**
Mezzanine	**2.1**	**0.3**	**0.0**
Total Equity	**104.3**	**98.7**	**76.9**

Source: AIG Annual Report on Form 10-K for the year ended December 31, 2008; AIG Annual Report on Form 10-K for the year ended December 31, 2012; AIG Annual Report on Form 10-K for the year ended December 31, 2016.
*Total Other Liabilities as of December 31, 2012, includes $24 billion of ILFC debt reclassified as liabilities of businesses held for sale.

APPENDIX B: FIRE SALE MODEL DETAIL

The Council Basis included a supplemental analysis of the relative impact of negative shocks to the equity or assets of certain financial institutions on other financial institutions.[225] The analysis has been updated for the purposes of this annual reevaluation, as of December 31, 2016 for AIG and for other financial firms.

See section 5.3.3 for a discussion of this model in the context of the asset liquidation transmission channel.

Depending on the initial shock, AIG produces a fire-sale effect that places it 11th or 19th among financial institutions, compared to 10th or 16th in 2012. A summary of the analysis of the relative impact on other financial institutions of negative shocks to firms' equity or assets is shown below.[226]

Mean Scores for the Magnitude of Firm's Fire-Sale Effects (2016)

	Equity Shock		Asset Shock	
Rank	**Firm**	**Mean Score**	**Firm**	**Mean Score**
1	JPMorgan Chase & Co.	96.6%	JPMorgan Chase & Co.	97.2%
2	Wells Fargo & Company	95.7%	Wells Fargo & Company	94.8%
3	Bank of America Corporation	95.6%	Bank of America Corporation	80.7%
4	Citigroup Inc.	54.1%	Citigroup Inc.	44.1%
5	Morgan Stanley	26.2%	Morgan Stanley	28.5%
6	Berkshire Hathaway Inc.	25.7%	U.S. Bancorp	23.8%
7	U.S. Bancorp	24.9%	Goldman Sachs Group, Inc.	23.3%
8	Goldman Sachs Group, Inc.	23.1%	MetLife, Inc.	17.6%
9	MetLife, Inc.	19.5%	PNC Financial Services Group, Inc.	15.5%
10	PNC Financial Services Group, Inc.	19.3%	Prudential Financial, Inc.	14.0%
11	**American International Group, Inc.**	**15.7%**	TD Group US Holdings LLC	12.3%
12	Capital One Financial Corporation	15.5%	Capital One Financial Corporation	12.0%
13	BB&T Corporation	13.8%	SunTrust Banks, Inc.	10.7%
14	TD Group US Holdings LLC	13.8%	BB&T Corporation	10.4%
15	Prudential Financial, Inc.	12.7%	Ally Financial Inc.	10.2%
16	SunTrust Banks, Inc.	12.0%	DB USA Corporation	9.3%
17	HSBC North America Holdings Inc.	9.8%	Barclays US LLC	9.3%
18	Bank of New York Mellon Corporation	9.8%	HSBC North America Holdings Inc.	8.8%
19	Credit Suisse Holdings (USA), Inc.	9.8%	**American International Group, Inc.**	**8.7%**
20	Citizens Financial Group, Inc.	8.8%	Credit Suisse Holdings (USA), Inc.	8.6%
21	M&T Bank Corporation	8.7%	Bank of New York Mellon Corporation	8.5%
22	MUFG Americas Holdings Corporation	8.4%	State Street Corporation	8.0%
23	Ally Financial Inc.	8.1%	MUFG Americas Holdings Corporation	7.4%
24	Keycorp	8.0%	Keycorp	7.4%

Source: Annual Reports on Form 10-K for the year ended December 31, 2016; Consolidated Financial Statements for Holding Companies on form FR Y-9C; Board of Governors calculations.

[225] Council Basis, p. 114.

[226] The analysis considers the framework proposed in Greenwood, Landier and Thesmar, *Vulnerable Banks*, NBER working paper 18537 (2014), and extensions by Duarte and Eisenbach, *Fire-Sale Spillovers and Systemic Risk*, FRBNY Staff Report 645 (2015).

There are a number of changes at AIG that have affected its relative ranking among other financial institutions. In particular, AIG has reduced its general account assets by over 15 percent since 2012, reducing the amount of assets that AIG would have to liquidate in the event of its material financial distress. On the other hand, the composition of AIG's assets has shifted toward less liquid assets since 2012, reducing somewhat the effect of the size reduction. **[•]**

The major differences in the asset composition of AIG's balance sheet relative to other financial holding companies tend to limit the spillover effects captured by this model. In particular, relative to banks, AIG's balance sheet is much more heavily weighted toward securities than loans. In addition, the composition of its securities portfolio is very different from those of banks. In particular, AIG holds a much larger share of its portfolio in "other debt securities," which is largely composed of corporate bonds, than the average holding company. These "other debt securities" account for approximately 61 percent of AIG's securities portfolio, while they account for less than 5 percent of securities at the average holding company. On the other hand, AIG holds significantly fewer Treasury and agency securities and RMBS than other holding companies, with only 16 percent of its portfolio invested in these securities, compared to 64 percent at the average holding company. In short, while AIG would likely be forced to sell greater quantities of illiquid securities, the fact that these securities are not widely held by other holding companies would reduce some of the impact.

Since 2012, AIG's leverage ratio as measured by total general account assets to total equity has risen from 5.0x to 5.4x. All else equal, this means that a shock to the firm's balance sheet will erode more of the buffer protecting creditors, potentially requiring the company to sell more assets to rebuild at least some of that buffer. However, despite the slight increase in the leverage ratio, AIG remained well below the bank holding company average of 9.8x and the average for the largest 25 bank holding companies of 9.5x.

There are a number of elements that the fire sale model does not take into account that could affect the results. For instance, the liability profile of a firm is not a variable in the model, although a company's reliance on more liquid funding sources could serve as a trigger for a potential asset liquidation. **[•]** may exacerbate the potential effect of asset fire sales by the company beyond what is predicted by the model.

In addition, the fire sale model requires the allocation of each firm's assets into homogenous categories, each with the same haircuts for each firm. However, if the types of assets across companies are heterogeneous, the model could overstate or understate a company's systemic impact score. As of year-end 2016, AIG held approximately 24 percent of its general account as "other assets," compared to approximately 6 percent of all holding companies 10 percent for the largest 25 holding companies. A significant proportion of this segment is insurance-specific assets, such as premiums receivable ($10 billion), reinsurance ($22 billion), and deferred policy acquisition costs ($11 billion). These assets are bespoke and unlikely to be material holdings of other holding companies, thereby limiting spillover effects for this asset class.