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U.S. Insurance Industry's Exposure to Securities Lending and Repurchase Agreements as of Year-End 2017

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For U.S. insurers, securities lending represents a potentially low-risk asset management strategy. As they are short-term transactions, U.S. insurers engage in securities lending activity to achieve short-term financing and to obtain additional yield income. That is, insurers not only earn a modest income on fees charged to counterparties (i.e. other financial institutions that may also be referred to as "borrowers") on securities lent, but they also earn income on the cash or securities received in exchange for the loaned securities (known as "reinvested collateral"). Historically, securities lending has not been a significant investment for U.S. insurers, with reinvested collateral at less than 1% of U.S. insurers' total cash and invested assets.

U.S. insurers also engage in repurchase agreements ("repos") and reverse repos, which together are also typically less than 1% of total cash and invested assets. Repos are economically similar to securities lending, in that they represent a form of short-term secured financing, but there are some structural differences. With repos, the insurer sells securities to a counterparty in exchange for cash and agrees to repurchase the same (or substantially the same) securities back at an agreed-upon date, for an agreed-upon price; reverse repos are repos from the counterparty's perspective.

There are two types of repos: bilateral, where there is a direct agreement between two counterparties whose custodian banks settle the trade; and tri-party, where there is a third-party custodian bank settling the trade between two counterparties. Currently, Bank of New York Mellon (BNY Mellon) and JPMorgan Chase are the two primary third-party custodian bank intermediaries for tri-party repos.

This special report is an update to the NAIC Capital Market Bureau's last published special report on securities lending activity among U.S. insurers dated September 2016, titled "U.S. Insurance Industry Year-End 2015 Exposure to Securities Lending and Repurchase Agreements and Regulatory Update." Note that the NAIC Capital Markets Bureau also recently published a [Capital Markets Primer](#) on securities lending, which provides an overview and basic background of securities lending activity, including their risks, on June 4, 2018.

U.S. Insurer Exposure – Year-End 2017

Reinvested Collateral

In exchange for securities lent, U.S. insurers receive cash and/or securities as collateral; they may, in turn, invest any cash received in securities, so that collectively, all cash and securities become known as “reinvested collateral”. Insurers earn investment income on reinvested collateral. When investing any reinvested collateral, insurers must take into account not only the credit risk of the additional investments, but also the asset/liability management risk relative to the lent securities.

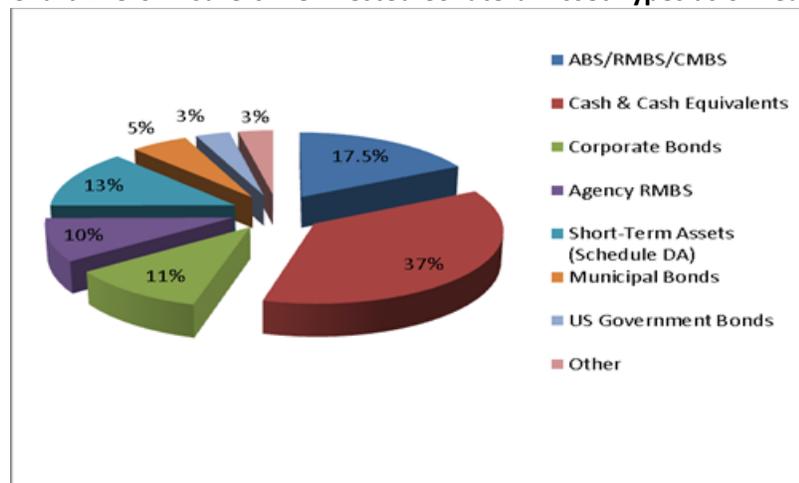
As of year-end 2017, reinvested collateral held by U.S. insurers totaled about \$55.6 billion in book/adjusted carrying value (BACV) based on data as reported in Schedule, DL Part 1; and Schedule DL, Part 2. In comparison, reinvested collateral was about \$53 billion at year-end 2016. Since 2009, reinvested collateral has ranged from a low of \$47 billion to a high of \$63 billion. Table 1 shows historical U.S. insurer exposure to securities lending reinvested collateral over the past five years.

Table 1: U.S. Insurers Reinvested Collateral (\$bil BACV)

2013	2014	2015	2016	2017
\$ 61.0	\$ 59.0	\$ 55.0	\$ 53.1	\$ 55.6

As shown in Chart 1, the majority of reinvested collateral held by U.S. insurers at year-end 2017 was in cash and cash equivalents at 37%, followed by 17.5% in residential-mortgage backed securities (RMBS), commercial mortgage-backed securities (CMBS) and asset-backed securities (ABS), together. Note that short-term, liquid investments (i.e. cash and cash equivalents plus short-term investments) totaled 50% of U.S. insurers’ total reinvested collateral at year-end 2017 (compared to about 45% at year-end 2016). Also, life companies accounted for almost 90% of U.S. insurers’ reinvested collateral exposure.

Chart 1: U.S. Insurers’ Reinvested Collateral Asset Types as of Year-End 2017



Corporate bonds accounted for 11% of total reinvested collateral — a decrease from 17% at year-end 2016— and, following a similar trend, U.S. government bonds decreased to 3% of total reinvested collateral in 2017 from 6% at year-end 2016. The year-over-year trend demonstrates a shift by insurers

into holding more cash, cash equivalents and short-term investments with reinvested collateral, rather than U.S. government bonds and corporate bonds. In addition, similar to year-end 2016, data reported by U.S. insurers showed that the majority, or almost 70% of reinvested collateral, was scheduled to mature in 10 years or less as of year-end 2017.

Securities Lent

U.S. insurers are not required to report the actual amount of securities lent to borrowers; rather, they only report the amount associated with the lent securities, or the amount of the whole security (i.e., the encumbered amount owned rather than the portion of it that is lent) that is reported in Schedule D, Part 1 (Bonds); Schedule DA (Short-Term Investments); and Schedule D, Part 2, Section 2 (Common Stock). As such, the total amount of securities lent by U.S. insurers as reported in the aforementioned schedules' is more than the amount actually lent. As of year-end 2017, data showed that U.S. insurers' exposure to securities associated with securities lent totaled approximately \$87 billion in BACV. The majority of securities lent activity was with life companies.

In comparison, at year-end 2016, total securities associated with securities lent by U.S. insurers totaled about \$76 billion. Since 2011, securities associated with securities lent have ranged between approximately \$76 billion and \$87 billion. Table 2 shows the most recent five-year history of U.S. insurers' reported exposure to securities associated with securities lent.

Table 2: U.S. Insurers' Securities Associated with Securities Lent* (\$bil BACV)

2013	2014	2015	2016	2017
\$ 80.0	\$ 76.0	\$ 79.6	\$ 76.3	\$ 87.4

* Coded as "LS" in Schedule D, Part 1; Schedule DA; and Schedule D, Part 2, Section 2.

A year-over-year analysis of securities that comprised securities lent by U.S. insurers shows that most securities associated with securities lent consist of corporate bonds and U.S. government bonds.

Repos

U.S. insurer exposure to repos and reverse repos has also traditionally been less than 1% of total cash and invested assets on an aggregate basis. Similar to securities lent, U.S. insurers only report the total amount of securities *associated* with repo activity; that is, the insurers did not necessarily lend out the full amount of the securities reported. They may have only lent a portion of the reported line item for which they received collateral from a counterparty (i.e. they represent securities initially sold in exchange for cash). As of year-end 2017, reported data showed that U.S. insurers had about \$20.8 billion in BACV of securities associated with repos and reverse repos (in aggregate), compared to almost \$26 billion at year-end 2016. Table 3 shows the historical exposure going back to year-end 2013. As reverse repo activity has been relatively insignificant for U.S. insurers, it was included in repo activity totals for the purpose of this report update. For example, about \$3 billion of U.S. insurer repo activity (out of the total \$20.8 billion) was in reverse repos at year-end 2017, compared to \$4 billion at year-end 2016.

Table 3: U.S. Insurers' Securities Associated with Repos (\$bil BACV)*

2013	2014	2015	2016	2017
\$ 20.3	\$ 21.4	\$ 25.0	\$ 25.9	\$ 20.8

*Coded as "RA", "RR", "DR" and "DRR" in Schedule D, Part 1; Schedule D, Part 2, Section 2; and Schedule DA.

As of year-end 2017, all securities associated with repos held by insurers were investment grade based on their NAIC designations, with 96% having NAIC 1 designations. Consistent with years prior, the majority were in U.S. government bonds, followed by lesser amounts in corporate bonds and agency RMBS. Even though U.S. government bonds are highly liquid, the ability of the counterparty to source the same or substantially the same securities to return back to the insurer at the end of the repo agreement poses a potential risk. Life companies accounted for almost the entire U.S. insurance industry's exposure to repos and reverse repos.

Statutory Accounting Treatment

Securities Lending

Statement of Statutory Accounting Principles No. 103R— Transfers and Servicing of Financial Assets and Extinguishments of Liabilities (SSAP No. 103R) states that the borrower of loaned securities must post adequate cash collateral, which is, in turn, invested by the insurance company, thus termed the "reinvested collateral."

SSAP No. 103R also states that any cash as collateral received by the insurer that *can* be repledged should be reflected on balance sheet, while cash collateral received by the insurer that *cannot* be repledged or sold (that is, it must be held) should be recorded off balance sheet, and it is not captured in the financial statements. For both on and off-balance sheet reinvested collateral, summary information is required to allow for identifying potential liquidity constraints related to potential duration mismatches.

In addition, according to SSAP No. 103R, any collateral received by the insurer in exchange for securities lent must have a fair value of at least 102% of the fair value of the loaned securities. If the collateral dips below 100% of the fair value of the loaned securities at any time during the securities lending agreement, the borrower is then obligated to deliver additional collateral by the next business day so that the fair value of total collateral received equals 102% of the fair value of the loaned securities.

Note that the cash or collateral held on balance sheet is treated like any other insurer asset in terms of reporting, valuation and risk-based capital. Accounting treatment for U.S. insurers' securities lending exposure aims not only to promote consistency, but also to improve transparency with respect to reporting.

Repos

Similar to securities lending, SSAP No. 103R requires a reporting entity to receive and maintain adequate collateral for repos, which is currently 95% of the fair value of the securities transferred to the counterparty. This means that if the collateral held by the insurer dips below 95% of the fair value of the securities transferred to the counterparty, then the counterparty must deliver additional collateral by

the next business day so that the total fair value of collateral held by the insurer is 95% of the fair value of the transferred securities.

Repos represent a way for insurers to raise short-term cash and access low-risk cash flow. According to SSAP No. 103R, repos are most often accounted for as collateralized borrowings, meaning securities sold by the insurer continue to be accounted for as an investment owned by the insurer. However, if certain conditions are met as described in SSAP No. 103R, repos may instead be accounted for as a sale of financial assets and a forward repurchase agreement. SSAP No. 103R defines repos as “agreements under which a reporting entity sells securities and simultaneously agrees to repurchase the same or substantially the same securities at a stated price on a specified date.” Securities that are “substantially the same” must meet criteria included in SSAP No. 103R.

Current Market Trends

As a result of the financial crisis, banking regulators sought to establish guidelines to better monitor securities financing transactions such as securities lending and repo activity. The Financial Stability Oversight Council (FSOC) was formed in July 2010 by the federal Dodd-Frank Wall Street Reform and Consumer Protection Act to identify risks to financial stability that could arise due to activities of large banks or nonbank financial companies, to promote market discipline, and to respond to threats to stability of the U.S. financial system.

Given the size of the overall securities lending market, which was \$2.3 trillion globally, as of October 2017, according to the FSOC 2017 annual report (Chart 2), it draws attention from a financial stability perspective. So to promote transparency relative to these investments, regulatory bodies such as FSOC and the Financial Stability Board (FSB) have made initiatives for data collecting and reporting.

Chart 2: Value of Securities on Loan



Source: Markit Group Limited

Note: Data is based on a survey of agent-based lenders.

Source: FSOC 2017 Annual Report

Total bilateral U.S. repo market activity was \$2.1 trillion as of May 2018 (and \$2.3 trillion as of year-end 2017) compared to a pre-crisis peak in 2007 of \$4.5 trillion, according to data from the Securities Industry and Financial Markets Association (SIFMA). The tri-party repo market was estimated to be \$1.8

trillion as of April 2018, compared to \$1.7 trillion and \$1.6 trillion in January 2017 and January 2016, respectively.

In March 2018, the FSB issued a report (titled *Securities Financing Transactions Reporting Guidelines*) that addressed guidelines for reporting securities financing transactions, including securities lending and repos. This report follows two previously published FSB reports: the first report was published in August 2013 (titled *Policy Framework for Addressing Shadow Banking risks in Securities Lending and Repos*), and it sets out recommendations to address financial stability risks related to securities lending and repo activity; the second report was published in November 2015 (titled *Standards and Processes for Global Securities Financing Data Collection and Aggregation*), and it not only set out recommendations related to collecting data from market participants, but it also finalizes the standards and processes for global data collection and aggregation for reporting to the FSB by national and regional authorities. Recommendations in the latest report published in March include improving data collection on securities lending and repo transactions to identify financial stability risks as early as possible and to assess global trends in these markets.

The 2017 FSOC annual report addresses among other activities, significant financial market and regulatory developments. It states that “high-quality data covering bilateral transactions in the securities financing markets would be valuable for regulators and market participants alike.” As such, FSOC encourages efforts to make data collection on certain repos and securities lending transactions permanent.

Note that the data collection as recommended by the FSB and FSOC is intended to monitor financial stability and private sector risk management by regulators and market participants, whereas the aforementioned NAIC disclosures (as in the reporting requirements and SSAPs) are intended to help monitor solvency of individual insurance entities; it is important to make that distinction. That said, since 2010, U.S insurers have been required to “bucket” maturity dates of securities lending reinvested collateral in Schedule DL, Part 1 or Schedule DL, Part 2, as applicable, to address any mismatch in the maturity of the reinvested collateral and when a borrower can demand return of the cash it posted (as indicated in the applicable securities lending agreement). Summary information is required on the duration of when lent securities are expected to be returned to the insurance company and the cash is to be returned to the borrower. This helps identify potential liquidity constraints within the securities lending program. Because securities lending agreements are intended to be short-term, insurers must be able to liquidate the reinvested collateral on short order to return the cash to the borrower.

Conclusion

Historical data reported by U.S. insurers shows that participating in securities lending activity and repos has not been a substantial portion of their investment strategy. Reinvested collateral from securities lending as well as repo activity has comprised less than 1% of total cash and invested assets. Insurers engage in securities lending as an investment strategy for short-term financing and to obtain additional yield income (on reinvested collateral held in exchange for securities lent to counterparties), and they engage in repo activity mostly to raise short-term cash and access low-risk cash flow. As reverse repo

activity was insignificant for U.S. insurers, it was included in repo activity totals for the purpose of this report update.

Given the size of the securities lending market, banking regulators have coordinated to establish procedures to monitor activity for the sake of financial stability, while insurance regulators have made efforts to monitor this activity for solvency.

The NAIC Capital Markets Bureau will continue to monitor trends in the securities lending and repo markets and report as deemed appropriate.

Useful Links:

[FSOC 2017 Annual Report](#)

FSB publications:

[Securities Financing Transactions - Reporting Guidelines, March 2018](#)

[Transforming Shadow Banking into Resilient Market-based Finance – Standards and Processes for global Securities Financing Data Collection and Aggregation, November 2015](#)

[Policy Framework for Addressing Shadow Banking Risks in Securities Lending and Repos, August 2013](#)

July 30, 2018								
Major Insurer Share Prices			Change %			Prior		
			Close	Week	QTD	YTD	Week	Quarter
Life	Aflac	\$46.55	2.8	6.4	6.1	\$45.28	\$43.76	\$43.89
	Ameriprise	148.04	3.0	0.1	(12.6)	143.69	147.94	169.47
	Genworth	4.60	69.6	62.4	47.7	2.71	2.83	3.11
	Lincoln	68.06	(4.9)	(6.8)	(11.5)	71.58	73.06	76.87
	MetLife	46.07	(3.0)	0.4	(8.9)	47.49	45.89	50.56
	Principal	58.52	(3.9)	(3.9)	(17.1)	60.89	60.91	70.56
	Prudential	100.19	(6.4)	(3.2)	(12.9)	107.03	103.55	114.98
	UNUM	39.39	(19.4)	(17.3)	(28.2)	48.88	47.61	54.89
PC	Axis Capital	56.76	0.5	(1.4)	12.9	56.48	57.57	50.26
	Allstate	95.14	(3.2)	0.4	(9.1)	98.31	94.80	104.71
	Arch Capital	30.52	(62.3)	(64.3)	(66.4)	81.05	85.59	90.77
	Cincinnati	75.68	0.5	1.9	0.9	75.28	74.26	74.97
	Chubb	139.52	1.3	2.0	(4.5)	137.68	136.77	146.13
	Everest Re	226.81	(8.2)	(11.7)	2.5	246.99	256.82	221.26
	Progressive	59.97	(1.8)	(1.6)	6.5	61.05	60.93	56.32
	Travelers	131.63	(3.8)	(5.2)	(3.0)	136.84	138.86	135.64
	WR Berkley	75.82	1.4	4.3	5.8	74.74	72.70	71.65
	XL	56.21	1.2	1.7	59.9	55.55	55.26	35.16
Other	AON	\$144.70	0.5	3.1	8.0	\$144.04	\$140.33	\$134.00
	AIG	54.99	(0.8)	1.0	(7.7)	55.43	54.42	59.58
	Assurant	109.87	17.6	20.2	9.0	93.41	91.41	100.84
	Fidelity National	40.39	6.1	0.9	2.9	38.05	40.02	39.24
	Hartford	53.11	2.1	3.1	(5.6)	52.03	51.52	56.28
	Marsh	84.66	2.1	2.5	4.0	82.90	82.59	81.39
Health	Aetna	\$189.52	7.1	12.1	5.1	\$176.92	\$169.00	\$180.39
	Cigna	176.63	3.9	5.3	(13.0)	169.94	167.74	203.09
	Humana	314.07	6.8	16.8	26.6	294.12	268.83	248.07
	United	255.11	8.5	19.2	15.7	235.06	214.00	220.46
Monoline	Assured	\$37.98	3.5	4.9	12.1	\$36.70	\$36.20	\$33.87
	MBIA	9.73	7.3	5.1	32.9	9.07	9.26	7.32
	MGIC	12.48	17.6	(4.0)	(11.6)	10.61	13.00	14.11
	Radian	18.89	21.2	(0.8)	(8.3)	15.59	19.04	20.61
	XL Capital	56.21	1.2	1.7	59.9	55.55	55.26	35.16

July 30, 2018								
Major Market Variables		Close	Change %			Prior		
			Week	QTD	YTD	Week	Quarter	Year
Dow Jones Ind		25,384.15	3.8	5.3	2.7	24,462.94	24,103.11	24,719.22
S&P 500		2,807.32	5.1	6.3	5.0	2,670.14	2,640.87	2,673.61
S&P Financial		466.94	0.9	2.1	0.6	462.86	457.53	463.94
S&P Insurance		390.45	(1.4)	0.0	(2.9)	395.98	390.30	402.08
US Dollar \$			Change %			Prior		
/ Euro	\$1.17		(4.7)	(4.9)	(2.4)	\$1.23	\$1.23	\$1.20
/ Crude Oil bbl	70.12		2.5	8.0	16.7	68.38	64.94	60.11
/ Gold oz	1,222.60		(8.5)	(7.6)	(6.3)	1,336.50	1,322.80	1,305.20
Treasury Ylds %		%	Change bp			%	%	%
1 Year	2.41		0.21	0.31	0.66	2.20	2.10	1.75
10 Year	2.97		0.02	0.23	0.57	2.96	2.74	2.41
30 Year	3.10		(0.05)	0.13	0.36	3.15	2.98	2.74
Corp Credit Spreads -bp			Change %			Prior		
CDX.IG	59.01		(2.7)	(10.0)	20.4	60.65	65.56	49.02

July 30, 2018										
Major Insurer Bond Yields					Weekly Change					YTD
					Price			Spread over UST		Spread
Company	Coupon	Maturity	Current	Change	Yield	B.P.	Change	Change		
Life	Ameriprise	AMP	3.700%	10/15/2024	\$99.95	\$0.42	3.71%	78	(0)	14
	Lincoln National	LNC	3.350%	3/9/2025	\$95.99	\$0.25	4.05%	110	25	26
	MassMutual	MASSMU	3.600%	4/9/2024	\$99.53	(\$0.11)	3.69%	79	13	23
	MetLife	MET	4.050%	3/1/2045	\$94.21	\$0.70	4.42%	133	10	30
	New York Life	NYL	2.350%	7/14/2026	\$90.76	(\$0.12)	3.70%	74	5	16
	Pacific Life	PACLIF	5.125%	1/30/2043	\$106.03	\$0.17	4.71%	162	4	7
	Principal	PFG	6.050%	10/15/2036	\$118.62	(\$0.17)	4.54%	150	13	26
	Prudential	PRU	4.600%	5/15/2044	\$102.39	\$0.78	4.44%	135	12	28
	Allstate	ALL	4.500%	6/15/2043	\$103.32	\$1.21	4.28%	118	4	18
	Berkshire Hathaway	BRK	4.300%	5/15/2043	\$101.64	\$0.71	4.19%	111	14	21
	Travelers	TRV	4.600%	8/1/2043	\$105.11	(\$3.40)	4.27%	116	11	19
	XL Group	XL	6.250%	5/15/2027	\$113.25	\$0.30	4.41%	140	(2)	(1)
Other	AON	AON	4.250%	12/12/2042	\$91.85	(\$0.21)	4.82%	174	20	35
	AIG	AIG	6.820%	11/15/2037	\$123.18	\$0.95	4.94%	187	10	28
	Hartford	HIG	4.300%	4/15/2043	\$95.84	\$1.75	4.58%	149	24	35
	Nationwide	NATMUT	5.300%	11/18/2044	\$106.27	\$0.05	4.87%	178	11	34
Health	Aetna	AET	6.750%	12/15/2037	\$125.95	(\$0.50)	4.69%	162	23	22
	CIGNA	CI	6.150%	11/15/2036	\$112.90	(\$0.73)	5.06%	198	(1)	62
	United Healthcare	UNH	4.750%	7/15/2045	\$108.74	\$1.52	4.20%	110	(2)	14

Questions and comments are always welcomed. Please contact the Capital Markets Bureau at CapitalMarkets@naic.org

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