

Research

Repo & Securities Lending Survey of U.S. Markets Volume and Loss Experience



The Bond Market Association, with the assistance of the Risk Management Association (RMA) and Securities Industry Association Securities Lending Division (SIA), conducted a dealer survey in September 2004 of repurchase transactions ("repo"), tri-party repo, and securities lending and borrowing. The survey questionnaire requested information about transaction activity by major U.S. regulated financial institutions, including broker-dealers, as of June 30, 2004. The survey had four objectives:

1. Undertake the first comprehensive study to estimate outstanding volume in the U.S. market by counterparty.
2. Determine the size of the funding market by product and counterparty as of June 30, 2004.
3. Understand and quantify historical loss exposure.
4. Inform market participants, regulators and the general public about repo and securities lending markets.

The significant findings of the survey are:

1. Despite the size of the market in repo, margin and securities lending, U.S. regulated financial institutions indicated that they have had no material losses since 1990 as a result of the substantial impairment of netting or collateral rights.
2. Respondents indicated that firms transacted with many types of counterparties, including significant transaction volume with counterparties that lacking clear financial contract safe-harbor protection under relevant bankruptcy law.
3. Volumes in U.S. regulated financial institutions' repo, margin and securities lending activity reached almost \$7.84 trillion outstanding considering U.S. and non-U.S. counterparties.

Total Outstanding Repo and Securities Lending Volume Estimated to Exceed \$7.84 Trillion

The Total Funding Market

The U.S. funding markets—DVP repo, tri-party repo and securities lending in U.S. dollar assets outsourced in the United States—are large and important markets. Indeed, while the survey results are considered to be a reliable estimate, the data may in fact understate market size. The total outstanding volume (Table 1) includes transactions with U.S. and non-U.S. counterparties. As of June 30, the U.S. markets, as defined, had an outstanding volume estimated to be about \$7.84 trillion. Of that total, DVP repo represented about \$3.86 trillion or 49.2 percent, tri-party repo represented about \$1.35 trillion or 17.2 percent and securities lending bonds borrowed and stock loan represented about \$2.36 trillion or 30.1 percent of the total. The NASD/NYSE margin lending volume totaled \$275.1 billion or 3.5 percent.

The Market: Product by Counterparty

The DVP repo and securities lending volume are grouped by counterparty. For each type of secu-

rities transaction, there are three sets of tables: by U.S. counterparty, including and excluding other dealers, and non-U.S. counterparties (Tables 2a, 2b and 2c for DVP Repo and 3a, 3b and 3c for Securities Lending). The outstanding volume with non-dealer counterparties in the U.S. is also presented graphically (Charts 1 and 2). The data is broken down in this way in order to give the reader a more detailed and refined view of the market.

TABLE 1: TOTAL OUTSTANDING VOLUME BY PRODUCT

Product	\$ Volume (millions)	% Total
Total	7,838,301	100.0
DVP Repo/ Reverse Repo	3,857,740	49.2
Tri-Party Repo/ Reverse Repo	1,350,000	17.2
Securities Borrowing/Lending	2,355,413	30.1
NASD/NYSE	275,148	3.5

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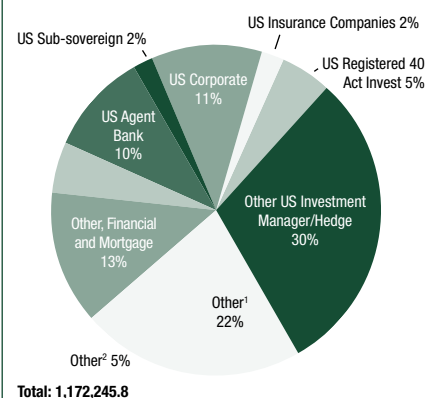
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CHART 1: DVP REPO
US COUNTERPARTIES, EXCLUDING DEALERS



¹Foreign affiliates, foreign dealers, and corporate, insurance and managed funds

²Federal Reserve Bank, US Gov't Agency, US ERISA Pension Funds, US Non-ERISA & Pub Pension, US Foundation & Endowments

TABLE 2a: DVP REPO
WITH US COUNTERPARTIES,
INCLUDING DEALERS

Product	\$ Volume (Millions)	% US DVP Totals
Total	2,738,522	100
US Dealers	1,566,276	57.2
Federal Reserve Bank	14,275	0.5
US Agent Bank	112,773	4.1
US Government Agency	11,781	0.4
US Municipal	23,430	0.9
US Corporate	132,457	4.8
US ERISA Pension Funds	7,718	0.3
US Non-ERISA & Pub. Pension	7,025	0.3
US Insurance Companies	25,946	0.9
US Registered 40 Act Invest	60,280	2.2
Other US Investment Manager/Hedge	348,393	12.7
US Foundations and Endowments	20,160	0.7
Other, Financial and Mortgage Companies	147,525	5.4
Other*	260,484	9.5

*Other denotes responses that did not specify the type of counterparty

DVP Repo

The total DVP repo outstanding volume with all U.S. counterparties is estimated to be approximately \$2.7 trillion as shown in Table 2a. Of that total, dealer-to-dealer transactions (\$1,566 billion) account for 57.2 percent of the total, followed by private fund managers, including hedge funds (\$348 billion), “other” financial and mortgage companies (\$148 billion), and corporations (\$132 billion). The miscellaneous “other” group, that is, those that did not specify the counterparty, totaled \$260 billion. Table 2b presents U.S. transactions volume excluding dealers and provides market share. The outstanding volume with non-dealer counterparties is estimated to be about \$1.2 trillion. Excluding dealers as counterparties, other investment funds and hedge funds make up the largest share at 29.7 percent followed by “other” finance and mortgage companies at 12.6 percent and corporations at 11.3 percent of the total. The “did not specify” category accounted for 22.2 percent. Table 2c presents the volume with non-U.S. counterparties. The estimated total is slightly above \$1.1 trillion with the largest share captured by the off-shore hedge funds, making up 28.5 percent of the total. The miscellaneous “other,” that is did not specify, category totaled 54.9 percent.

TABLE 2b: DVP REPO
WITH US COUNTERPARTIES, EXCLUDING
DEALERS

Product	\$ Volume (Millions)	% US DVP Totals
Total	1,172,245.8	100
Federal Reserve Bank	14,275	1.2
US Agent Bank	112,773	9.6
US Government Agency	11,781	1.0
US Municipal	23,430	2.0
US Corporate	132,457	11.3
US ERISA Pension Funds	7,718	0.7
US Non-ERISA & Pub. Pension	7,025	0.6
US Insurance Companies	25,946	2.2
US Registered 40 Act Invest	60,280	5.1
Other US Investment Manager/Hedge	348,393	29.7
US Foundations and Endowments	20,160	1.7
Other, Financial and Mortgage Companies	147,525	12.6
Other*	260,484	22.2

*Other denotes responses that did not specify the type of counterparty

TABLE 2c: DVP REPO
WITH NON-US COUNTERPARTIES

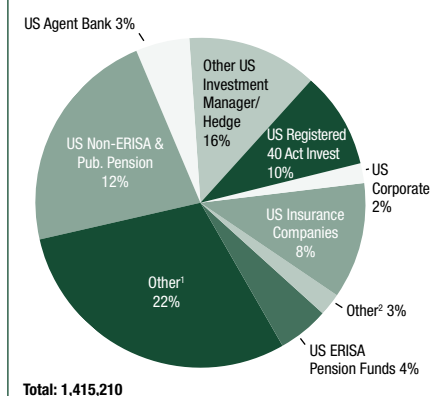
Product	\$ Volume (Millions)	% Non-US DVP Totals
Total	1,119,218	100
Supranationals	12,970	1.2
Sovereign Govt/ Central Banks	158,820	14.2
Non-US Sub-Sovereign Govt Entities	14,033	1.3
Off Shore Hedge	318,920	28.5
Other*	614,475	54.9

*Other includes foreign affiliates, foreign dealers, and corporate, insurance companies and managed funds.

Securities Lending

The total securities lending volume with all U.S. counterparties is estimated to be approximately \$1.94 trillion as shown in Table 3a. Of that total, dealer-to-dealer transactions (\$527 billion) account for 27.1 percent of the total, followed by private fund managers, including hedge funds (\$220 billion), non-ERISA and public pension plans (\$176 billion), registered investment companies (\$138 billion), and insurance companies (\$108 billion). The unspecified “other” counterparty category (\$309 billion) accounted for more than 15.9 percent of the total. Table 3b presents U.S. transactions excluding dealers and provides market share data. The outstanding volume with non-dealer counterparties is estimated to be \$1.42 trillion. Excluding dealers as counterparties and the did not specify category, private fund managers, including hedge funds, make up the largest share at 15.5 percent of the non-dealer total, followed by non-ERISA and public pension plans with 12.4 percent, and registered investment companies with 9.7 percent. The “did not specify” category was 21.9 percent of the total. Table 3c presents the outstanding volume with non-U.S. counterparties. The estimated total is about \$688 billion with the largest share captured by the sovereign governments/central banks. The miscellaneous “other,” that is did not specify, category accounted for more than \$530 billion and was the only other substantial volume total.

**CHART 2: SECURITIES LENDING
US COUNTERPARTIES, EXCLUDING DEALERS**



Total: 1,415,210

¹Foreign affiliates, foreign dealers, and corporate, insurance and managed funds

²Federal Reserve Bank, US Gov't Agency, US ERISA Pension Funds, US Non-ERISA & Pub Pension, US Foundation & Endowments

**TABLE 3a: SECURITIES LENDING
WITH US COUNTERPARTIES, INCLUDING
DEALERS**

Counterparties	\$ Volume (Millions)	% Securities Lending Totals
Total	1,942,249	100
US Dealers	527,039	27.1
Federal Reserve Bank	12,250	0.6
US Agent Bank	47,575	2.4
US Government Agency	949	0.0
US Municipal	40,796	2.1
US Corporate	20,977	1.1
US ERISA Pension Funds	52,052	2.7
US Non-ERISA & Pub. Pension	175,997	9.1
US Insurance Companies	108,288	5.6
US Registered 40 Act Invest	137,897	7.1
Other US Investment Manager/Hedge	219,874	11.3
US Foundations and Endowments	13,967	0.7
NASD/NYSE	275,148	14.2
Other*	309,441	15.9

*Other indicates respondents that did not specify counterparty.

**TABLE 3b: SECURITIES LENDING
WITH US COUNTERPARTIES, EXCLUDING
DEALERS**

Counterparties	\$ Volume (Millions)	% Securities Lending Totals
Total	1,415,210	100
Federal Reserve Bank	12,250	0.9
US Agent Bank	47,575	3.4
US Government Agency	949	0.1
US Municipal	40,796	2.9
US Corporate	20,977	1.5
US ERISA Pension Funds	52,052	3.7
US Non-ERISA & Pub. Pension	175,997	12.4
US Insurance Companies	108,288	7.7
US Registered 40 Act Invest	137,897	9.7
Other US Investment Manager/Hedge	219,874	15.5
US Foundations and Endowments	13,967	1.0
NASD/NYSE	275,148	19.4
Other*	309,441	21.9

*Other denotes responses that did not indicate a specific counterparty

**TABLE 3c: SECURITIES LENDING
WITH NON-US COUNTERPARTIES**

Counterparties	\$ Volume (Millions)	% Non-US Securities Lending Totals
Total	688,312	100
Supranational	--	--
Sovereign Govt/ Central Banks	144,605	21.0
Non-US Sub-Sovereign Govt Entities	1,680	0.2
Off Shore Hedge	11,350	1.6
Other*	530,677	77.1

*Other indicates foreign affiliates, foreign dealers, and corporate, insurance and managed funds.

No Material Financial Losses From Netting and Collateral Impairment Reported

In addition to the outstanding volumes, the survey asked the firms about loss experience in the funding markets from 1990 to the present. Specifically, the firms were asked to indicate whether they had experienced material financial losses resulting from the substantial impairment of netting or collateral rights in bankruptcy including losses due to an inability to enforce relevant legal documentation because of a counterparty's bankruptcy. Excluded from the question were losses for other reasons, that is, losses due to a lack of security or failure to mark-to-market. The clear conclusion from responses to the survey was that there had been no material loss experience reported.

Appendix

Survey Methodology

The survey was conducted in two parts. First, a questionnaire was distributed by The Bond Market Association to primary dealers, asking them to estimate the outstanding volume by counterparty as of June 30 for DVP repo and direct institutional securities lending. Fifteen primary dealers responded, and the data and analysis in this report represents an estimate of the market size by counterparty based on those responses. In addition, and as part of the survey, the leading tri-party repo dealers provided aggregate outstanding volume, and those responses are the basis for the estimate for tri-party repo activity. The tri-party data are presented in the aggregate but not broken down by counterparty.

The second part of the survey was conducted through the Risk Management Association's member banks. The banks were asked to provide the outstanding volume as of June 30, and 19 banks responded¹. The agent lending reported in the survey represented the sum of their actual responses.

Based on this methodology, the study reported DVP repo in the aggregate and by counterparty; securities lending defined as the sum of direct and agency lending in the aggregate and by counterparty; and total tri-party repo outstanding.

The survey focused on activity in the U.S. market, distinguishing between U.S. and non-U.S. counterparty types. As the survey is U.S.-focused, the survey asked for finer distinctions and thus more counterparty categories for U.S. than was requested for non-US counterparties. The level of detail also reflects efforts to minimize the reporting burden on participating institutions.

The US counterparty types identified in the survey were dealers, agent banks, the Federal Reserve Bank, US government agencies, state and local governments, corporations, ERISA pension funds, non-ERISA public pension funds, registered 40 Act companies (i.e. "mutual funds"), other investment funds, hedge funds, insurance companies, foundations and endowments, and a miscellaneous "other category". Non-US counterparties included supranational, sovereign governments and central banks, sub sovereign government entities, off shore hedge funds and the miscellaneous categories.

¹ Please note, that as a reference point, the RMA portion of the survey resulted in a total of about \$588 billion on loan (through agent lending and broken out by counterparty) outstanding which compares to \$786 billion as reported in its June quarterly survey, which had 21 respondents, and \$1,370 billion based on 25 responses in the January of 2004 semi-annual survey.