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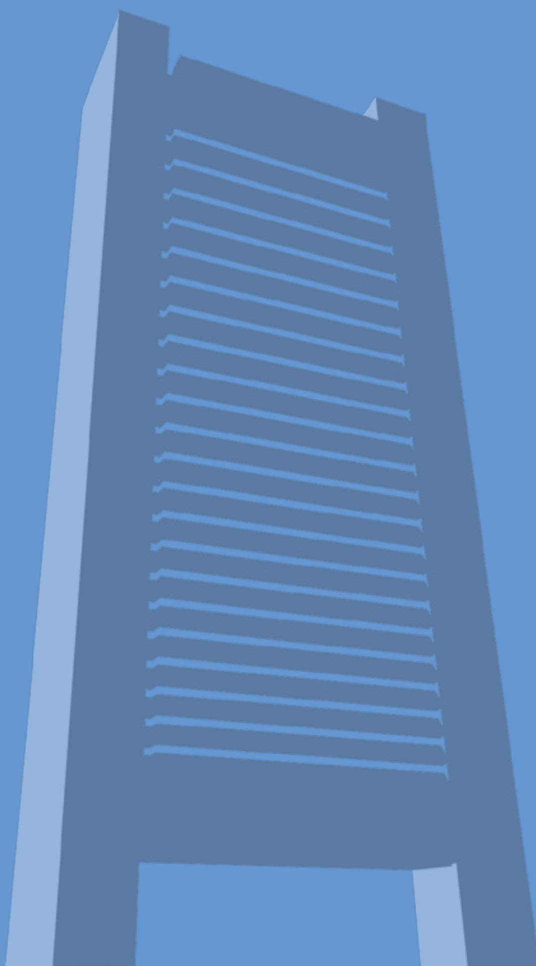
Short-Term Wholesale Funding Risks



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November 5, 2014

Global Banking Standards and Regulatory and Supervisory Priorities in the Americas
Lima, Peru

bostonfed.org

Recent Progress on Financial Stability Issues

- Significant actions taken, making traditional banking more stable
  - Higher capital ratios
  - More attention to liquidity
  - Credible stress tests
- Still work to be done on financial organizations with less traditional business models
  - Concern over short-term wholesale funding
  - Topic of Federal Reserve officials' speeches

Broker-Dealer Funding

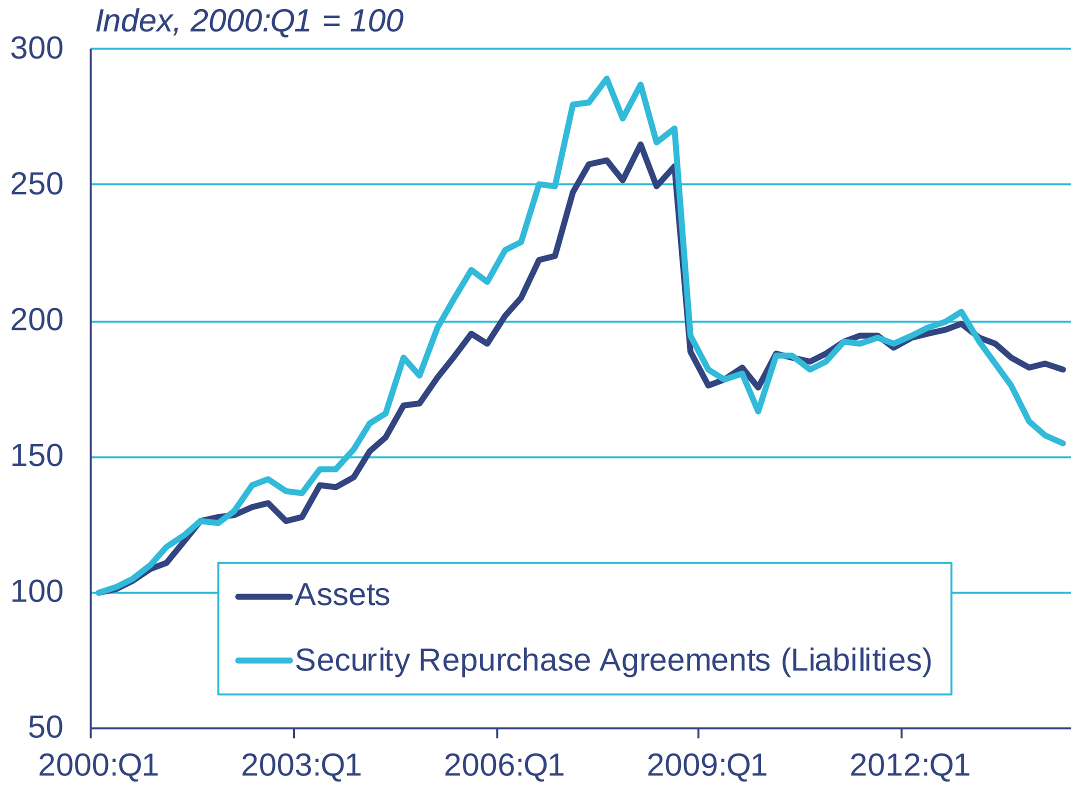
- Largest broker-dealers are now in bank holding companies in the U.S.
- Broker-dealer financing of securities has relied on short-term wholesale funding
- Repurchase agreements (repos) – collateralized borrowing with short maturities – have been important source of financing
- Funding through Tri-Party market (clearing banks), General Collateral Finance or GCF, and bilateral market

View of Repos Has Changed

- Prior to crisis assumed repo financing would be stable funding
- During crisis, proved not nearly as stable as expected (significant decline in repo financing)
- Bank holding companies that house broker-dealers cannot easily replace funding during a crisis – financial stability risk
- Risks from wholesale funding are a reason for better disclosures around this type of financing

Figure 1: Selected Balance-Sheet Items of Security Brokers and Dealers

2000:Q1 - 2014:Q2



Source: Federal Reserve Board, Financial Accounts of the United States, Haver Analytics

Figure 2: Lehman Brothers Funding Runoff

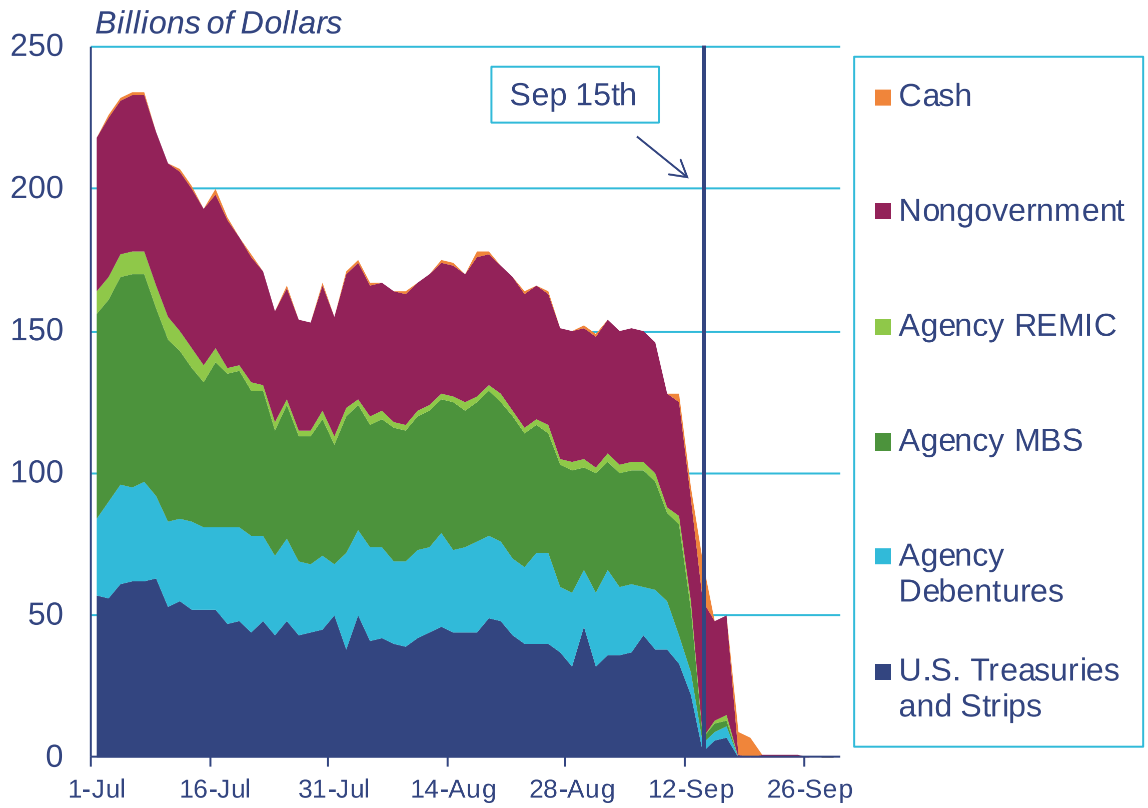
May 30, 2008 - August 29, 2008

Funding Source	May 30 - Aug 29, 2008 (Billions of Dollars)	as a Percent of 2008:Q2 Total Assets
Repo	11.8	1.8%
Prime Brokerage	9.2	1.4%
Counterparty/Derivatives Collateral Calls	12.3	1.9%
Commercial Paper	4.2	0.7%
Other Short-Term Debt	10.1	1.6%

Source: Lehman Brothers Holdings Inc. Chapter 11 Proceedings, Report of Anton R. Valukas, Examiner, and Exhibits, Jenner & Block LLP, Lehman Brothers Holdings Inc., 10-Q, May 31, 2008

Figure 3: Composition of Collateral Posted by Lehman Brothers in Tri-Party Repo

July 1, 2008 - September 30, 2008

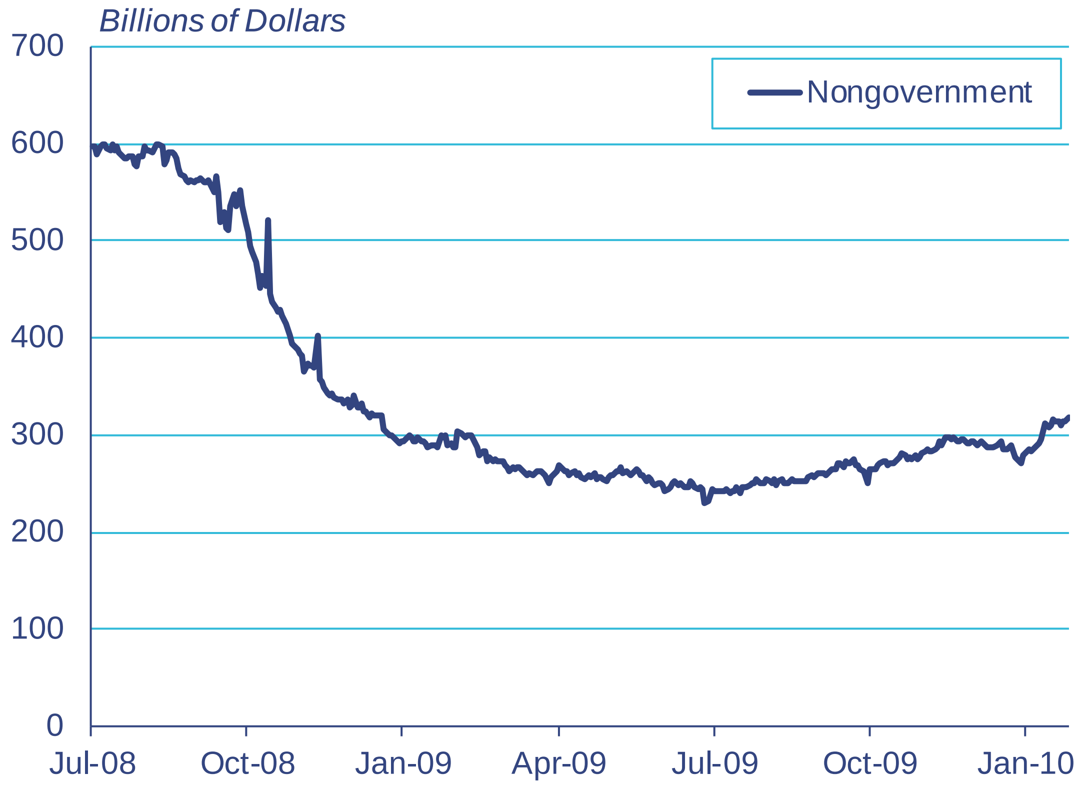


Note: Nongovernment securities are those not backed by the full faith and credit of the federal government.

Source: Federal Reserve Bank of New York Staff Report No. 506, "Repo Runs: Evidence from the Tri-Party Repo Market" by Adam Copeland, Antoine Martin and Michael Walker, July 2011, Revised August 2014

Figure 4: Tri-Party Repo Market: Collateral Not Guaranteed by the Federal Government

July 1, 2008 - January 29, 2010



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Source: Federal Reserve Bank of New York Staff Report No. 506, "Repo Runs: Evidence from the Tri-Party Repo Market" by Adam Copeland, Antoine Martin and Michael Walker, July 2011, Revised August 2014

Figure 5: Size of the Repo Market

January 2014

U.S. Repo Market Estimates Billions of Dollars	
Total[a]	3,107
Tri-Party[b]	1,407
General Collateral Finance (GCF)[b]	306
Bilateral[c]	1,394

[a]Estimates are based on Federal Reserve Reporting Form FR2004 (for primary dealers in U.S. government securities), data as of January 8, 2014.

[b]Federal Reserve Bank of New York, data as of January 10, 2014.

[c]Bilateral Repo estimates are a residual amount, equal to Total Repo minus Tri-Party Repo minus GCF Repo.

Source: Liberty Street Economics, "Lifting the Veil on the U.S. Bilateral Repo Market" by Adam Copeland, Isaac Davis, Eric LeSueur, and Antoine Martin, July 9, 2014

Concerns with Short-Term Wholesale Funding

- Crisis highlighted that funding was not stable
- Collateral problems created by fire sales of assets
- Problems occurred despite extensive emergency funding by the Federal Reserve
- While most large investment banks are now in bank holding companies, this alone does not obviate concerns

Broker-Dealers and Bank Holding Companies

- U.S. bank laws and regulations are designed to ensure bank liquidity – significantly restrict ability to fund liquidity problems at affiliates including holding company parent and its nonbank subsidiaries
  - Discount window loans to banks, not to holding company parent or nonbank subsidiaries
  - Discount window loans available only if the bank is solvent
  - 13-3 Facilities of Federal Reserve did provide broker-dealer financing during crisis but this has been restricted

Limitations on 13-3 Financing

- Lending must be broad based not just to one firm
- Firm must be solvent
- Requires Treasury approval
- Reduces likelihood that nonbanks could expect emergency financing from the Federal Reserve

Other Limitations on Bank Funding of Nonbank Affiliates

- 23A restrictions
  - Limit “covered transactions” with affiliate to 10 percent of the bank’s capital stock and surplus
  - Limit “covered transactions” with all affiliates to 20 percent of bank capital stock and surplus
- 23B restrictions – transactions with affiliates need to be done at market terms
- Protect bank from exposure to losses at or caused by nonbank affiliates, and protect the deposit insurance fund

Figure 6: Protecting the Bank

The U.S. regulatory framework limits bank funding of the activities of nonbank affiliates

Collateral Category(1), (2)	**Treatment of Repurchase Agreements with 2008 Exemptive Relief** (5)	**Treatment of Repurchase Agreements Post-DFA**
U.S. Treasuries and Agencies	Exempt from the collateral requirements, 10% and 20% quantitative limits, and prohibitions on purchases of low-quality assets.	Exempt from Section 23A requirements if 100% collateralized.(6), (7)
Assets Eligible for Pledging at the Discount Window (other than U.S. Treasuries and Agencies)(3)	Exempt from the collateral requirements, 10% and 20% quantitative limits, and prohibitions on purchases of low-quality assets.	Must be 100% collateralized. Also subject to the 10% and 20% quantitative limits.
Assets Not Eligible for Pledging at the Discount Window(4)	Exempt from the collateral requirements, 10% and 20% quantitative limits, and prohibitions on purchases of low-quality assets.	Generally must be collateralized at 120% (over-collateralized). Also subject to the 10% and 20% quantitative limits.
Equities	Exempt from the collateral requirements, 10% and 20% quantitative limits, and prohibitions on purchases of low-quality assets.	Must be collateralized at 130% (over-collateralized). Also subject to the 10% and 20% quantitative limits.

Note 1: Copeland et al., *"Repo Runs: Evidence from the Tri-Party Repo Market,"* Federal Reserve Bank of New York Staff Report, July 2011, Number 506, Revised August 2014 (providing categories of tri-party repurchase agreement collateral as of September 30, 2008).

Note 2: This analysis does not address the permissibility of a bank engaging in various types of repurchase agreements.

Note 3: Assets eligible for pledging at the discount window include asset-backed securities, corporate bonds, private label collateralized mortgage obligations, whole loans, and municipal bonds, all meeting certain ratings requirements.

Note 4: This category of assets consists of the classes of assets eligible for pledging at the discount window but that do not meet the discount window's credit quality standards.

Note 5: 12 C.F.R. § 223.42(n) (implementing the Board's 2008 exemptive relief). *See also* 73 *Fed. Reg.* 54307 (September 19, 2008).

Note 6: The Board's Regulation W, implementing FRA Sections 23A and 23B, has not been amended since DFA was enacted. For the purpose of this analysis, we have assumed that repurchase agreements would be treated as "credit transactions" as they are treated under current Regulation W. We have not addressed the prohibitions on purchases of low-quality assets or the exemptions for purchases of certain assets granted under 12 C.F.R. § § 223.42(e) or (f). *See also* 12 C.F.R. § 223.42(c) (exempting "credit transactions" secured by U.S. government securities). The requirements of Section 23B still apply.

Note 7: 12 C.F.R. § 223.14(b)(1) (identifying "credit transaction" collateral requirements).

Impact of Dodd-Frank Act

- Significant impediment to bank funding of broker-dealers experiencing a run
- Broker-dealers' financing mechanisms need to be robust enough to endure potential financial stress
- Should not expect that runs on nonbank subsidiaries could be addressed through the bank holding company structure

Additional Actions on Short-term Funding

- Governor Daniel Tarullo and Chair Janet Yellen have suggested regulatory measures such as additional capital charges for banks that house significant short-term wholesale funding operations
- I see a role for public and more timely disclosure of broker-dealers' financing activities
- The lack of comprehensive disclosure requirements during the crisis meant:
  - The significant ramp-up in the use of repurchase agreements was not obvious to investors
  - The movement to repos that were backed by less secure collateral was not obvious to investors
  - Of course, disclosure is not a standalone "cure all"

Figure 7: Example of SEC FOCUS Report Part III Filed Annually and Publicly Available

CONSOLIDATED STATEMENT OF FINANCIAL CONDITION
ASSETS

Cash and cash equivalents	$
Cash deposited with clearing organizations or segregated under federal and other regulations or requirements	
Financial instruments owned, at fair value (approximately $ were pledged to various parties)	
Securities received as collateral, at fair value	
Securities purchased under agreements to resell (includes $ at fair value)	
Securities borrowed	
Receivables:	
Customers	
Brokers, dealers and clearing organizations	
Interest and dividends	
Fees and other	
Affiliates	
Premises, equipment and software (net of accumulated depreciation and amortization of $)	
Goodwill	
Other assets	
Total assets	$

LIABILITIES AND MEMBER'S EQUITY

Short-term borrowings:	
Affiliates	$
Other (includes $ at fair value)	
Financial instruments sold, not yet purchased, at fair value	
Obligation to return securities received as collateral, at fair value	
Securities sold under agreements to repurchase (includes $ at fair value)	
Securities loaned	
Other secured financings (includes $ at fair value)	
Payables:	
Customers	
Brokers, dealers and clearing organizations	
Interest and dividends	
Other liabilities and accrued expenses (includes $ at fair value)	
Total liabilities	
Subordinated liabilities	
Member's equity:	
Morgan Stanley & Co. LLC member's equity	
Accumulated other comprehensive loss	
Total Morgan Stanley & Co. LLC member's equity	
Noncontrolling interest	
Total member's equity	
Total liabilities and member's equity	$

See Notes to Consolidated Statement of Financial Condition

Source: SEC FOCUS Report Part III, Consolidated Statement of Financial Condition

Public Disclosures

- Broker-dealer legal entity level
  - Should apply to all large broker-dealers including those not in a bank holding company
  - Information like maturity structure, collateral composition, other short-term wholesale funding
- Work has begun to look for opportunities to provide more detail on wholesale funding in bank holding company reports

Concluding Observations

- Over-reliance on short-term wholesale funding remains a problem
- Broker-dealer financing for those in bank holding companies has significant limitations – highlights need to limit the likelihood of future problems or crises
- Need better disclosures so investors and analysts can provide market discipline
- However, disclosure alone will not be sufficient to address the problem
- Capital charge for short-term wholesale funding would help