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REPORT OF EXAMINATION

Lehman Brothers Holdings Inc.
New York, NY

Docket Number: H3463
Structure Number: S2511
Type of Examination: HC – Limited
Examination Start Date: May 19, 2008
Examiner-in-Charge: Ronald S. Marcus

OTS-CONFIDENTIAL

OBJECTIVE:

OTS reviewed the structure, reliability and counterparty credit framework related to the secured funding and lending activities of Lehman Brothers Inc. ("LBI") and Lehman Brothers International (Europe) ("LBIE"), the principal broker-dealer subsidiaries of Lehman Brothers Holdings Inc. (LBHI or firm)[a]. Organizational structure is summarized in Exhibit 1.

SUMMARY AND CONCLUSIONS:

LBHI, through its subsidiaries, acts as a borrower (repurchase agreements) and lender (reverse repurchase agreements) in the secured borrowing and lending markets, respectively. The heightened focus on counterparty credit due to the Bear Stearns crisis has been evident in the secured lending markets. As a borrower, the firm has encountered larger haircut requirements on its non-agency and agency secured financing. Since the demise of Bear Stearns, some counterparties have upgraded collateral requirements in terms of haircuts and types of acceptable collateral. Along with the entire broker/dealer industry, LBHI is significantly reliant upon short term, secured funding.

Nevertheless, secured borrowing and lending activities at LBHI and subsidiaries are being executed on an overall routine basis with no perceptible difficulties at this time (as of the conclusion of the on-site field visit May 30, 2008). As the daily liquidity reports illustrate, the repo book, excluding

[a] There are eleven exhibits referred to in this field visit. They are filed as part of the electronic workpapers.

treasuries, agency and agency mortgage backed securities ("MBSs"), has remained very stable over the past several months, and has recently been running in the range of $110-$115 billion (Exhibit 2). LBHI has exposure to counterparties as lender and over the past several months has increased margins in certain asset classes.

Based on discussions with Credit Risk Management and Quantitative Risk Management, both divisions in the Global Risk Management Division, the counterparty credit risk framework is rigorous in the measurement of credit risk, including analysis, limit setting, monitoring and the quantitative methodologies processes. Exposures have been properly managed and monitored.

RECENT MARKET DEVELOPMENTS

Since the Fed intervention in the run on Bear Stearns, the SEC has been encouraging the large broker-dealers to lengthen maturities of both secured and unsecured borrowings (including longer term repo maturities). The firm has been focusing on excess secured financing for less liquid and illiquid assets. In addition, the CSE group has been reviewing more extreme, short term stress scenarios in the secured funding markets to determine the extent of the need for maintaining larger liquidity pools. The SEC has been encouraging more counterparty diversification as well.

At the time of the acquisition of Bear Stearns by JP Morgan, the Federal Reserve Bank of New York inaugurated the Primary Dealer's Credit Facility ("PDCF"), a temporary program to allow overnight, open window access to the large primary dealers. This new facility, established on March 16, 2008 and remaining in place for a minimum of six months, provides important back-up liquidity to the investment banks. This program, which the market perceives as an assured source of funding from the Fed, acted to alleviate most concerns regarding the ability of the broker-dealers to fund daily operations in the secured funding market. Collateral for the facility includes collateral eligible for tri-party repurchase agreements with the Fed, investment-grade corporate securities, municipal securities, MBS and ABS, all for which a price must be available. Thus, the central bank has effectively become the lender of last resort to the primary dealers of the non-commercial banks for the first time. LBI has not borrowed from this open-window facility since the middle of April when it borrowed for several days to test the mechanics. Broker-dealers usage has been minimal with no borrowings outstanding at July 2, 2008 and only $1.7 billion average for the week ended July 2, 2008.

Following up on the launch of the PDCF, on March 27, 2006, the Term Securities Lending Facility ("TSLF"), a 28 day term facility, was created for primary dealers to increase liquidity through bi-weekly competitive auctions of general collateral for eligible tri-party repurchase agreements and Aaa/AAA private label RMBS, CMBS and agency collateralized mortgage obligations ("CMOs"). Collateralized Debt Obligations ("CDOs"), Collateralized Loan Obligations ("CLOs"), and Collateralized Bond Obligations ("CBOs") are not eligible collateral for this new securities lending program. At July 2, 2008, $104.1 billion was outstanding under this TSLF, indicating that the dealers regard the PDCF as more of a last resort line of credit than the repo facility, which provides them government and agency collateral in exchange for the less liquid types. At May 29, 2008, LBI had $11.2 billion in term repurchase agreements collateralized with asset-backed and mortgage-backed securities with the New York Federal Reserve Bank (Exhibit 3).

COMMENTARY

Due to the importance of repurchase agreements and securities lending to overall financing of the major broker-dealers, a review of secured funding at Lehman was chosen to be the subject of a targeted review. The Financing Desk's organization chart, known as the Capital Markets Prime Services, is shown in Exhibit 4.

Secured funding activities, most of which are conducted by two broker-dealers-LBI LBIE, totaled $276.4 billion, or 35.1 percent of total liabilities, at February 29, 2008. Based on industry data, the firm's reliance on repurchase agreements and security lending is less than the industry average which was 70 percent in 2007.

Prior to the March 2008 failure of Bear Stearns, secured financing was deemed to be a very reliable source of short-term secured funding, usually concentrated in overnight or less than one week in tenor. But the fear of another failure of a Wall Street firm caused nervousness by some investors to conduct even repurchase agreements secured by high grade collateral during the week that Bear was experiencing liquidity problems. With the PDCF and TSLF put in place in the aftermath of that week, concerns regarding another Bear situation were substantially ameliorated, but, nevertheless, secured borrowing capabilities are scrutinized much more than in the past. The firm is susceptible to this short term funding concentration to the extent that it represents more than one-third of current funding.

Secured Financing Balance Sheet Accounts

There are three balance sheet line items which represent secured financing for the firm: Repurchase Agreements, Securities Loaned, and Other Secured Borrowings. Collateral is marked to market daily with margin requirements depending on the type of security collateralizing the agreement. Since secured borrowing (and lending) activities are not classified as securities, but repurchase and resale agreements and securities loaned and borrowed, the accounts are not carried at fair value, a topic addressed in SFAS 159, a FASB statement that addresses the fair value option.

Repurchase Agreements

A repurchase agreement ("repo or RP") is the sale of a security with a commitment by the seller to buy the same security back from the purchaser at a specified price at a designated future date. The repurchase agreement is essentially a collateralized loan where the "seller" is borrowing cash and providing collateral for the loan and the "buyer" is lending money and accepting collateral. A reverse repurchase agreement, an asset, would be the mirror image of a repo agreement from the perspective of the lender or investor.

At February 29, 2008, the firm had borrowed $197.1 billion through repurchase agreements. In most RP transactions, the securities are transferred to a custodian bank in book entry form for safekeeping in what is known as a tri-party agreement. In a general collateral repo ("GC"), the lender accepts any of a variety of Treasury securities as collateral with trades cleared through the Government Securities Clearing Corporation, a faster, more flexible way to trade government securities.

There are three types of repo maturities: overnight, term, and open repo. Overnight refers to a one-day maturity transaction; term to a specified end date and open with no maturity date. Although repos are typically short-term, as mentioned earlier, the SEC is strongly encouraging longer term maturities which would reduce constant rollover pressure on the broker-dealers.

There are essentially three forms of delivery for underlying collateral. The first is for the RP seller, to actually deliver the collateral to the lender's custodian bank. This is called "delivered out" or "delivery versus payment". At the end of the term, collateral is returned in exchange for the repurchase price, i.e., the amount borrowed versus payment. Although the risk of delivery of the collateral to the counterparty is eliminated, the cost is high compared to other forms, a feature which is reflected in a lower repo rate to the investor.

The second type of custody is for the collateral to be held by the seller in a segregated customer account or a "held-in custody" ("HIC") repo. This type of delivery is sometimes used when the collateral is difficult to deliver (e.g. whole loans) or the transaction is relatively small. The fraud risks associated with this type of delivery are the same as the "deliver versus payment" form.

The last, and by far the most frequently used, is tri-party custody delivery, where the collateral is delivered to an independent clearing and custodian institution, which places the collateral in a segregated tri-party account. The custodian confirms each day to the investor that their loans are fully collateralized with acceptable securities. Investors using this form of delivery benefit from a near elimination of fraud or bankruptcy risks and, therefore, accept a slightly lower return on investment.

The following table shows a breakdown of the non-government, agency and agency MBS repurchase position at April 30, 2008 (Exhibit 5).

($ in billions)

Collateral Type[bc]	Overnight	2 Days	3-7 Days	8-84 Days	Over 84 Days	Total
ABS-IG	$4.9			$1.5		$6.4
ABS-NIG	1.1		$0.3	0.8		2.2
Convertibles-IG	0.7					0.7
Convertibles-NIG	0.3			0.4		0.7
Corporates-IG	6.6				$0.7	7.3
Corporates-NIG	3.3			1.2	0.5	5.0
Equities	4.7			1.1	3.1	8.9
Money Markets	9.3					9.3
Muni	3.9					3.9
Private Label-High Yield	1.4	$0.2		0.7		2.2
Private Label-IG	4.4	0.4		6.6		11.4
Whole Loan Residential	0.5			0.1	0.5	1.1
U.S. Total	**$41.3**	**$0.6**	**$0.3**	**$12.2**	**$4.7**	**$59.1**
Global Total	**$52.6**	**$5.9**	**$7.6**	**$36.4**	**$8.6**	**$111.1**

The $111.1 billion total shown above corresponds to the amount reported on the daily liquidity reports provided to the OTS. The total repo book, including governments, agencies and agency MBS, was $232.4 billion at May 28, 2008 (Exhibit 6). The repo book has been very stable over the past three months as counterparties continue to trade with the firm despite continuing rumors and often negative press coverage.

A presentation made to the SEC on March 15, 2008, showed that 70 counterparties provided $116 billion of tri-party repo (Exhibit 7). As expected, the largest counterparties are the big custodian banks-State Street, BONY/Mellon, JP Morgan Chase, Fidelity Investments and Citibank which collectively provided $43.7 billion, or 37.6 percent, of tri-party repo funding. Although there is a provider concentration, these security lenders are dominant providers of short term, collateralized financing to the primary dealers.

Securities Loaned

The second type of collateralized borrowings is securities loaned. From the point of view of the securities borrower, the purpose is to obtain securities on a temporary basis to primarily cover short positions or for hedging purposes. The borrower of securities provides cash or other collateral to the lender which, in turn, represents another source of short term secured funding. At February 29, 2008, $54.9 billion of collateralized financing was categorized as securities loaned, a relatively small position compared to $158 billion of securities borrowed by LBI on the asset side of the balance sheet due to the sizeable amount of securities required by the broker-dealer to cover short, hedging and arbitrage positions. It is important to note that repurchase agreements are a much more prominent source of firm financing than security lending, whose collateral could be other securities, other assets or letters of credit.

[b] IG-Investment Grade
[c] NIG-Non-Investment Grade

Other Secured Borrowings

These secured borrowings, which totaled $24.5 billion at February 29, 2008, include proceeds received from transferring loans to securitization vehicles. These liabilities are accounted for as secured financings rather than sales under SFAS 140 (Exhibit 8). Only securities retained from securitizations are considered to impact economic exposure to the firm, and are therefore consolidated in the financial statements. Also included in this line item are non-recourse financings of entities consolidated because Lehman is the primary beneficiary. At February 29, 2008, management elected to fair value $8.6 billion of Other Secured Borrowings.

Evaluation of Counterparty Credit Risk

Although this target review focuses on secured lending arrangements, a review of credit methodologies used in connection with the extension of credit through reverse repurchase agreements and securities borrowings (both categorized under "Collateralized Agreements" on the balance sheet) provided an understanding of how counterparties evaluate and measure credit risk. From the lender's perspective, an evaluation must include a judgment on the creditworthiness of the counterparty (Exhibit 9 and Exhibit 10) as well as the exposure related to possible diminution of collateral values during the contract. Conversely, borrowers in the secured funding market are concerned with additional collateral that may be required to be posted as a consequence of market value changes on collateral held by lenders.

The Credit Risk Management ("CRM") Division of Global Risk Management is responsible for analyzing counterparty credit and assigning and monitoring internal ratings and credit limits. Stress testing of exposures is conducted by the Quantitative Risk Management Division in coordination with CRM which may propose changes in limits or collateral.

Proper documentation is important to ensure that trading is conducted within the terms of Master Repurchase Agreements. The Transaction Management Group is responsible for preparing and negotiating documents for approval. Depending on the nature and complexity of contemplated trading, some agreements may have more negotiated provisions than those contemplating more routine type transactions. The group coordinates with the business units in obtaining the documentation from customers and opening accounts, with CRM responsible for ensuring that credit terms are appropriate. The Margin Department is consulted on the setting of margin requirements.

A Potential Exposure ("PE") framework is used to quantify individual counterparty and corporate group total exposure, incorporating the effect of contractual netting arrangements and collateral held (Exhibit 11). The current PE is an estimate of the present value of credit exposure of the counterparty under an assumed market scenario. Many scenarios are modeled using statistical techniques to generate a distribution of PE values. The Maximum Potential Exposure ("MPE") is defined as the highest level that PE could reach during a particular period of time or time bucket calculated at a 95 percent confidence level. Potential exposure limits are expressed in terms of a single amount of credit exposure for a specific tenor or as a series of different limits for the six time buckets.

Calculations for Current Credit Exposure ("CCE") and MPE and are performed daily on each portfolio with a counterparty with netting, collateral and aggregation criteria reflected in the calculation. The calculations are repeated at future time points over the expected life of the portfolio, thus creating a time profile of MPE. The measure of PE for market, trade and counterparty specific factors includes the following factors: volatilities and correlations of underlying market variables; aging of trades; path dependency and optionality; revaluation of trades under future market scenarios; legal netting; margin provisions; and aggregation across products, legal entities and counterparty hierarchies.

There are two modeling techniques used by QRM for estimating PE-Monte Carlo simulations and Historical Simulation. Monte Carlo is a modeling technique using a large number of trial runs, or simulations, to estimate a probability distribution of possible outcomes. This highly computational method, typically involving thousands of simulations, is particularly suited to measuring risk in long dated derivative portfolios.

The Historical Simulation methodology applies a time series of historical returns to the current portfolio to estimate future scenarios of PE. This VaR technique, with a five day close out period, is best utilized to estimate PE over shorter intervals applied to repurchase agreements characterized by margined portfolios. The data base for these models has more than 25,000 individual securities.

At April 30, 2008, the CCE for all counterparties totaled $55.4 billion. Included in the total exposures was CCE of $15.1 billion for securities borrowing/lending and $3.6 billion for reverse repo/repo agreements, both aggregating 33.8 percent of total counterparty exposure. At 58 percent of total counterparty exposure, fixed income trading, including interest rate and credit derivatives, accounted for the majority of exposure.

The MPE aggregated $145.6 billion, a risk metric which reflected the worst possible impact on the value of collateral taken through the historical simulation methodology. Securities borrowing/lending accounted for $24.9 billion of MPE and reverse/repurchase arrangements constituted $6.8 billion of the total, or 21.8 percent, of the total MPE. The total limit for firm financing which includes these exposures was $100 billion, thus counterparty credit exposures were comfortably within limits.

Banks and other financial institutions comprised 61 percent of MPE at April 30, 2008. Eighty five percent of total MPE was with counterparties with internal ratings of A or above, indicating the very high credit quality of the firm's counterparties.