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Liquidity Management In Times Of Stress: How The Major U.S. Broker-Dealers Fare

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Liquidity Management In Times Of Stress: How The Major U.S. Broker-Dealers Fare

(Editor's Note: Updated statistics have become available since the initial publication of this report. Those statistics are reflected in the tables and chart in the following corrected version.)

Not since 1998 have the major U.S. broker-dealers been as liquidity-challenged as they were in third-quarter 2007, when disruptions in the U.S. subprime space and the spillover into other markets contributed to a general and widespread market correction. The correction called into question the liquidity capacity of The Bear Stearns Cos. Inc. (A+/Negative/A-1), The Goldman Sachs Group Inc. (AA-/Stable/A-1+), Lehman Brothers Holdings Inc. (A+/Stable/A-1), Merrill Lynch & Co. Inc. (A+/Negative/A-1), and Morgan Stanley (AA-/Negative/A-1+). However, regulatory changes and other measures undertaken in the past decade have helped prevent a liquidity meltdown among the U.S. broker-dealers during recent market turbulence. Indeed, although earnings performance in the third quarter was disparate among the firms, liquidity performance was good, demonstrating the firms' ability to absorb major liquidity shocks.

We believe that our ratings on the major U.S. broker-dealers are currently appropriate in terms of liquidity. The recent downgrade of Merrill Lynch is the only U.S. broker-dealer downgrade in recent months. In August, we also revised the outlook on Bear Stearns to negative from stable. In both cases, the negative ratings actions were not due to liquidity pressures, but to concerns with respect to limitations in the firms' risk-management practices. Of the five companies, our current view is that these two would be most subject to downgrades in the future if, contrary to our current expectations, market conditions deteriorate further (see "U.S. Broker-Dealers' 2008 Prospects Fair, Despite Challenges," published Oct. 24, 2007, on RatingsDirect). However, based on our liquidity analysis, we expect all the firms to continue to demonstrate funding and liquidity resilience in the current market environment.

Ongoing And Enhanced Liquidity Analysis

We consider liquidity as a key indicator of broker-dealer health that is integrated into our ratings on the major U.S. firms. In addition to our ongoing dialogue with the firms regarding liquidity, we analyze its various facets, including the diversity of funding sources, access to capital market and central bank funding, funding gaps or mismatches, degree of asset liquidity, and contingent liquidity planning. During the recent market turbulence, we took our analysis a step further to take into account the firms' ability and capacity to not only continue to meet ongoing funding needs, but to meet "unlikely" funding needs as well.

Our ongoing analysis underpins our belief that the major U.S. broker-dealers are well positioned, in terms of liquidity, to carry them through a period of market turbulence that may extend over the next six to 12 months.

Managing funding liquidity risk in an environment rife with market liquidity risk

When analyzing liquidity for broker-dealers, we look at two types of risk: funding liquidity risk, which is the potential inability to liquidate assets or obtain adequate funding; and market liquidity risk, which is the potential inability to unwind or offset large exposures--without significantly lowering market prices--because of thinly traded securities markets or market disruptions. Recent disruptions in the subprime market and its contagion effects into the leveraged finance, asset-backed commercial paper (ABCP), and CDO spaces have substantially curtailed market liquidity. The sudden loss of appetite for subprime and other high-yield exposure has significantly narrowed these

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markets, while uncertainty regarding asset valuations left many institutions unable to unwind exposures at fair market prices. In turn, fire sales of securities drove prices down in asset classes where prices are being questioned (see "Marking to Market When There Is No Market," published Oct. 15, 2007, on RatingsDirect). As a result, the markets for these assets have considerably shrunk, while the spiral effects have led to concerns with respect to the broker-dealers' funding liquidity risk.

Given the nature of the U.S. broker-dealers' business models, the five firms are all, to varying degrees, exposed to activities that are in the eye of the current market storm, whether it be through mortgage origination and securitization, leveraged finance, or the firms' role as liquidity providers to ABCP conduits or other structured vehicles. Because the U.S. broker-dealers are heavily reliant on wholesale funding sources to finance their activities, current market liquidity risk has caused much concern with respect to the firms' funding liquidity risk. Such concern is valid when considering that, without the substantial retail deposit funding sources that banks possess, broker-dealers live and die by liquidity. For example, in February 1990, Drexel Burnham Lambert collapsed because of its funding liquidity risk. Eight years later, Lehman Brothers suffered a liquidity crisis that might have been terminal had it not been for measures undertaken by management to shrink its balance sheet and extend the duration of its funding sources. Since then, the broker-dealers have made much progress in minimizing liquidity crises. While certainly far from immune to market corrections, the broker-dealers have taken measures to substantially reduce their vulnerability to funding and liquidity crises. Liquidity and funding risk management has improved in the past decade; contingency plans have been formulated and tested; and regulations specific to liquidity preservation have been introduced. This has all helped to increase these firms' shock absorption capacity.

The expected versus the "unlikely"

The market turbulence in third-quarter 2007, which increased client drawdowns on credit facilities and the inability to syndicate underwriting commitments, left the U.S. broker-dealers (among other financial institutions) with the prospect of having to take unprecedented levels of exposure onto their balance sheets, not to mention the obligation to fund that exposure. This exposure, considered "unlikely," goes to the nature of the broker-dealers' business models. For example, when underwriting loan commitments, the general practice of firms involved in M&A and leveraged finance is to commit to underwrite 100% of a transaction during the bidding process. Normally, there are several firms bidding on the same transaction, and they will parcel out among themselves portions of the total loan commitment. Thus, on a $10 billion total loan commitment, the number of firms participating in the transaction will, normally, actually have an end underwriting tranche that is proportionately smaller than the total loan commitment. Subsequently, each firm will syndicate out to other investors a good proportion, if not all, of its committed tranche. In other words, although they initially commit to finance 100% of the transaction, the underwriting firms typically never intend to hold on their balance sheets 100% of either the total or their proportion of the loan.

Similarly, firms commit to provide liquidity backstop facilities to support their clients' funding needs, such as CP issuance. As the name implies, the purpose of the facilities is to provide a backstop, or "in case," line of credit on which CP issuers can draw if they are unable to roll over, or reissue, their CP. The size of these backstop facilities is a proportion of average CP outstanding; generally between 25% and 50%. A CP backstop facility can be as high as 100% for lower rated entities. Since market-wide disruptions in the CP market have been--until recently--a relatively rare occurrence, the backstop facilities, although committed, are rarely drawn upon.

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Liquidity begets liquidity... and vice-versa

These are but two examples of the type of financing commitments made by banks and broker-dealers that are unlikely to materialize, particularly in toto, as firm on-balance-sheet exposure. In a normal market and operating environment, the broker-dealers maintain funding plans to finance their lending and other obligations. These include contingency funding plans for the occasional obligation such as a client drawdown on backstop credit facilities, or a loan that is taking longer to syndicate than expected. With the prospect of having to add substantial additional "unlikely" exposure to their balance sheets, the general apprehension in the third quarter was that the broker-dealers would not have sufficient funding capacity to meet ongoing needs, which can be quite substantial in a normal environment. The potential addition of substantial "unlikely" funding needs can therefore create the premise for a self-fulfilling prophecy: A broker-dealer rumored to be on the verge of a liquidity crisis will find itself on the verge of a liquidity crisis; this was the case for Lehman Brothers in 1998. Indeed, liquidity begins to dry up as funding doors close, and market funding becomes prohibitively expensive (adding yet another squeeze on liquidity, if the firm is able to access the market at all). Eventually, the firm becomes unable to meet its funding obligations and folds, as was the case for Drexel.

Focus on fundamentals

In our analysis of liquidity, we review the most significant aspects of the broker-dealers' management of liquidity sources, including contingent planning, with focus on the following:

- Diversity of liquidity and funding sources, including concentrations and access to credit markets;
- Unencumbered versus pledged and/or segregated assets;
- Asset-based liquidity, with focus on composition, size, and availability of liquid assets on the balance sheet (cash and money market funds, unpledged marketable securities, securitization, asset sales);
- Secondary liquidity in the securities portfolio;
- Timeline for liquidation of various asset classes in a stressed scenario;
- Funding liabilities, including their nature, volatility, and maturity structure (repo funding, bank credit facilities, deposits, short- and long-term debt);
- Funded and unfunded commitments;
- Funding gaps;
- Off-balance sheet commitments, including size, nature, and composition;
- Cash flow, including ability to service debt and other fixed charges;
- Net cash capital, which measures a firm's ability to fund itself in the longer term on a fully secured basis if it loses all funding capacity;
- Dividend capacity of unregulated subsidiaries; and
- The capacity of bank affiliates/subsidiaries to absorb balance-sheet exposure.

Outside of net cash capital, we do not take into account a firm's capital adequacy directly in our liquidity and funding analysis (instead, we include this in our capital analysis). This is primarily because capital is meant to finance ongoing operations and to absorb losses. In this respect, capital and liquidity are not synonymous: A firm may hold sufficient capital to meet regulatory requirements, but if that capital is invested in or otherwise backing illiquid assets, this severely restricts the firm's ability to meet expected or unexpected cash obligations as they come due. That said, the extent to which a firm is perceived as well-capitalized may prove beneficial in attracting funding during times of stress.

We also consider various regulatory and reporting issues that may have an impact on the broker-dealers' liquidity

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profiles. For example, under the Consolidated Supervised Entity regime that came into effect in August 2004, the SEC requires U.S. broker-dealer holding companies to maintain sufficient stand-alone liquidity outside of regulated subsidiaries and in all market environments to meet expected cash outflows. Although this requirement does not cover all commitments (for example, those that are "unlikely"), it provides a substantial cushion for expected funding needs, while ensuring the preservation of the regulated entities' liquidity profile.

On the financial reporting side, since Dec. 1, 2006, assets and liabilities recorded at fair value by the U.S. broker-dealers are categorized according to the level of judgment associated with the inputs used to measure their fair value. The three levels, defined by U.S. accounting standards (SFAS 157), allow a good degree of subjectivity with respect to the inputs used to determine fair valuation. Such was the recent case with Merrill Lynch, which, based on a reassessment of prior assumptions, changed its marks by several billion dollars in a matter of days. In any case, it is difficult to value assets in an environment like the current one where certain markets are still suffering varying degrees of illiquidity. Moreover, in an environment that lacks observable or historic data, some assets are being marked to an individual model, which can lead to disparate and incomparable inputs among the broker-dealers. Despite this subjectivity, we have not, thus far, adjusted the reported balance-sheet items in our spreadsheets, and we believe that, based on current information provided to us, the asset marks (net of hedges) the broker-dealers have recently applied are appropriate. Nevertheless, we are monitoring movements among the three asset levels to determine changes in the firms' asset liquidity and funding profile, which we expect will permit us to identify longer term trends.

Table 1

SFAS 157 Fair Value Assets

(Mil. $)	BSC	GS	LEH*	ML	MS
Quarter ended	8/31/07	8/31/07	8/31/07	6/29/07	8/31/07
Level 1 assets	29,796	145,175	79,154	99,695	163,679
Level 2 assets	188,011	494,635	168,417	552,946	595,802
Level 3 assets	20,254	72,048	34,682	27,146	89,850
Impact of netting	(90,862)	(42,374)	(25,900)	(231,251)	(410,175)
Total fair value assets	147,199	669,484	282,253	448.536	439,156
Total trading book	141,874	428,156	302,297	259,113	416,085
Total assets	397,091	1,045,778	659,216	1,097,188	1,185,131
As % of total assets					
Level 1 assets	7.5	13.9	12.0	9.1	13.8
Level 2 assets	47.3	47.3	25.5	50.4	50.3
Level 3 assets	5.1	6.9	5.3	2.5	7.6
Impact of netting	(22.9)	(4.1)	(3.9)	(21.1)	(34.6)
Total fair value assets	37.1	64.0	42.8	40.9	37.1

*Derivative assets are presented on a net basis by level. Sources: Company filings, Standard & Poor's analysis.

How the major U.S. broker-dealers fare

Despite certain differences in the five firms' business profiles, including range of activities and geographic diversity, our ongoing analysis reflects their ability to meet both short- and long-term funding and liquidity needs adequately. Moreover, despite size and diversity characteristics, there is a good degree of similarity in the firms' liquidity and funding capacity (see tables 1 and 2). This suggests that the U.S. broker-dealers are managing their liquidity and

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funding resources appropriately to minimize funding gaps between short- and long-term needs. Hence, using a sources-to-uses ratio, liquid assets are readily available and amply sufficient to cover short-term obligations, such as the portion of long-term debt that must be reimbursed in the next 12 months (see table 3). Longer term obligations are appropriately backed by less liquid assets that may take longer to liquidate.

Table 2

Balance Sheet Liquidity And Funding

(Mil. $)	BSC	GS	LEH	ML	MS
Quarter ended	8/31/07	8/31/07	8/31/07	6/29/07	8/31/07
Cash & equivalents	18,143	12,655	7,048	46,850	36,588
Unencumbered liquid securities	81,309	339,187	144,775	287,605	297,299
Less liquid unencumbered assets	234,369	559,118	479,456	587,003	793,087
Illiquid assets	49,811	116,043	17,358	160,308	14,928
Current portion of long-term debt (CPLTD)	7,888	19,740	13,997	56,613	22,984
Deposits at banks	N.A.	N.A.	24,935	94,977	N.A.
Other short-term liabilities	263,111	754,037	434,779	632,521	908,861
Long-term debt	68,758	183,980	142,325	208,267	184,695
Other long-term liabilities	44,070	34,996	17,157	15,674	28,466
Total equity, net of intangibles	13,172	48,481	21,915	38,460	37,031
Total long-term capital	70,172	194,553	137,956	246,727	184,386
Net cash capital	20,361	78,510	120,598	86,419	169,458
Liquidity pool	20,700	64,483	36,000	73,000	75,000
EBITDA*	12,111	64,524	48,692	42,700	65,072
Interest expense*	12,092	46,012	41,856	53,912	53,288

*Annualized. N.A.-Not available. Sources: Company filings, Standard & Poor's analysis.

Table 3

Sources And Uses Of Liquidity

	BSC	GS	LEH	ML	MS
Quarter ended	8/31/07	8/31/07	8/31/07	6/29/07	8/31/07
Liquid sources/CPLTD (x)	12.61	17.82	10.85	6.91	14.53
LLA/long-term debt (x)	3.41	3.04	3.37	3.70	4.29
LLA/total long-term liabilities (x)	2.08	2.55	3.01	3.13	3.72
Net cash capital/total long-term capital (%)	29.02	40.35	87.42	36.70	91.90
EBITDA interest cover (x)	1.00	1.40	1.16	1.26	1.22
Long-term debt/EBITDA (x)	5.68	2.85	2.92	2.34	2.84

Sources: Company filings, Standard & Poor's analysis.

We furthered our analysis by considering the U.S. broker-dealers' ability to take "unlikely" levels of commitments and contingent obligations--both funded and unfunded--onto their balance sheets to determine the firms' maximum potential exposure (MPE). Moreover, we stressed the firms' liquidity risk measure (market funds minus liquid assets in proportion to total assets) by assuming an unusually high funding liquidity risk. In other words, we assumed that the broker-dealers would not be able to access markets for their funding needs, nor would they be able to liquidate

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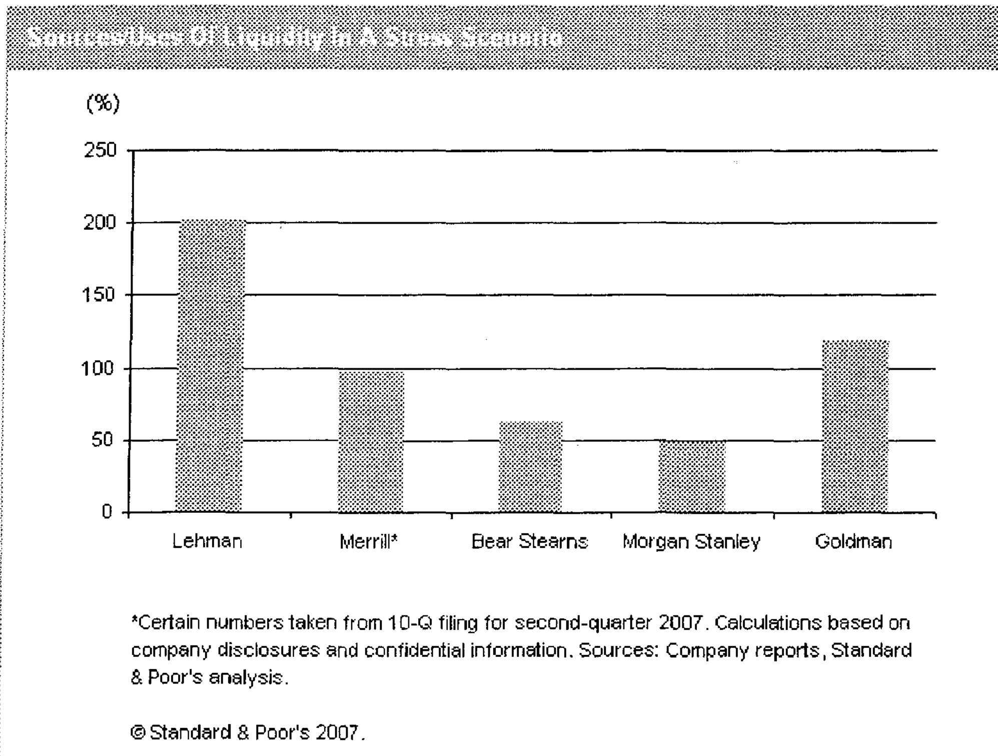
assets. Against the MPE, we stacked current available liquidity sources, including the banks' access to central bank funding, committed credit facilities, and the borrowing value of collateral. With the exception of maturing debt, we did not take existing balance sheet exposures into account in MPE because we assume these are financed by existing funding sources, such as deposits, term debt, capital, and net cash capital.



*Certain numbers taken from 10-Q filing for second-quarter 2007. Calculations based on company disclosures and confidential information. Sources: Company reports, Standard & Poor's analysis.

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The results of our analysis vary among the different firms, mainly due to their size and diversity characteristics. Nevertheless, our results reflect the resiliency and ability of the major U.S. broker-dealers--despite some substantial exposures, particularly in leveraged loans--to continue to meet even "unlikely" funding obligations during the next six to 12 months.

U.S. broker-dealer liquidity outlook

Based on our analysis, we believe that our ratings on the major U.S. broker-dealers are currently appropriate in terms of liquidity. We expect the firms' liquidity and funding profiles to continue to reflect resilience in the current market environment. There are signs that certain market segments, such as high-yield corporate debt, are beginning to improve slowly, thus permitting the broker-dealers to reduce their exposure. Moreover, the recent market correction will bring a return to tighter underwriting standards and reductions in risk appetite that we expect to contribute to the maintenance of satisfactory liquidity among the U.S. broker-dealers.

Stephen Pagano contributed research to this report.

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