

# UBS Investment Research

## Lehman Brothers

### Crunch Time for Lehman

#### ■ LEH Reported a Larger Than Expected Loss of \$5.92 Per Share

The loss (driven by \$7.8 bn of gross write-downs) was bigger than expected and there are still plenty of unanswered questions, but Lehman definitely reduced risk in 3Q (total mortgage assets declined 23% q/q) and its capital ratios (11.0% Tier 1), liquidity profile (\$42 bn at the parent) and core revenues of \$3.5 bn were all some version of pretty good considering the backdrop.

#### ■ Plenty of Important Questions Remain

In our view, the 4 key elements of the Lehman story are; 1) are the rating agencies & regulators on board with the plan?, 2) will clients & counterparties stick around?, 3) can the commercial real estate spin (REI Global) happen according to plan (meaning pricing, structure, timing)?, and 4) does Lehman need to raise capital (publicly or privately)?

#### ■ Market Forces May Shrink Time Horizon

Given LEH's reduced risk profile, its healthy capital ratios, and conservative marks on its residential mortgage exposures, it certainly seems like there should be value here. However, given that the rating agencies may have a fairly short time horizon and Lehman's relatively weak bargaining position, we worry that market forces could lead to a reasonably dilutive capital raise / sale at some point.

#### ■ Valuation: Maintain Neutral Rating

While the valuation looks compelling (0.5x pro forma tangible book), given the execution risk and shortened time horizon we remain Neutral on the shares. Our price target is based on 0.5x our estimated pro forma tangible book value.

Highlights (US\$m)	11/06	11/07	11/08E	11/09E	11/10E
Revenues	17,583	19,257	1,123	14,156	15,884
Pre-tax profits	5,605	5,713	(11,248)	2,856	3,671
Net income	3,641	3,825	(8,117)	1,738	2,292
EPS (UBS, US\$)	6.81	7.25	(12.15)	1.85	2.35
Net DPS (UBS, US\$)	0.48	0.60	0.52	0.05	0.08
Profitability & Valuation	5-yr hist av.	11/07	11/08E	11/09E	11/10E
ROE %	-	20.1	-27.7	7.6	10.1
P/Op x	11.1	9.7	NM	3.9	3.1
P/BVPS x	1.7	1.8	0.2	0.4	0.3
PE (UBS) x	11.1	9.7	-0.6	3.9	3.1
Net dividend yield %	0.6	0.9	7.2	0.7	1.1

Source: Company accounts, Thomson Financial, UBS estimates. (UBS) valuations are stated before goodwill-related charges and other adjustments for abnormal and economic items at the analysts' judgement.

Valuations: based on an average share price that year, (E): based on a share price of US\$7.25 on 10 Sep 2008 18:57 EDT

**Glenn Schorr, CFA**

Analyst  
glenn.schorr@ubs.com  
+1-212-713 2325

**Mike Carrier, CFA**

Analyst  
michael.carrier@ubs.com  
+1-212-713 2068

**Keith Murray**

Associate Analyst  
keith-a.murray@ubs.com  
+1-212-713 9433

### Global Equity Research

Americas

Investment Services

12-month rating **Neutral**  
**Unchanged**

12m price target **US\$8.00**  
**Prior:US\$22.00**

Price **US\$7.25**

RIC: LEH.N BBG: LEH US

11 September 2008

#### Trading data

52-wk range	US\$66.00-7.25
Market cap.	US\$5.01bn
Shares o/s	691m (COM)
Free float	97%
Avg. daily volume ('000)	9,277
Avg. daily value (US\$m)	163.6

#### Balance sheet data 11/08E

Shareholders' equity	US\$30.6bn
P/BVPS x	0.2
Tier one capital ratio	-

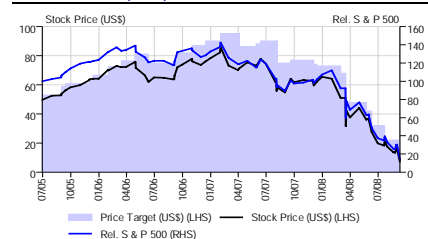
#### Forecast returns

Forecast price appreciation	+10.3%
Forecast dividend yield	0.7%
Forecast stock return	+11.0%
Market return assumption	7.2%
Forecast excess return	+3.8%

#### EPS (UBS, US\$)

	11/08E		11/07
	From	To	Cons. Actual
Q1	0.81	0.81	0.81 1.96
Q2	(5.14)	(5.14)	(5.14) 2.21
Q3	(2.75)	(5.92)	(3.35) 1.54
Q4E	(2.45)	(1.91)	(0.80) 1.54
11/08E	(9.53)	(12.15)	(8.24)
11/09E	2.00	1.85	3.06

#### Performance (US\$)



Source: UBS

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## Overview

While Lehman's loss in the quarter was larger than expected at \$5.92 and the company's fate might lie in the hands of the answers to a handful of very key questions, we do want to make sure we balance these important questions with the positive developments/initiatives in the quarter and walk through the pro forma math that can potentially take you to a \$16 pro forma tangible book value IF things are able to play out according to Lehman's plan (don't want to lose sight of Lehman's core revenues, capital, liquidity, and leverage positions). In a nutshell, while there are tons of things to talk about, most of the more important issues either fall under, or aren't as relevant as what we see to be the 4 most critical topics of conversation: 1) are the rating agencies & regulators on board with the plan?, 2) will clients & counterparties stick around?, 3) can the commercial real estate spin (REI Global) happen according to plan (meaning pricing, structure, timing...)?, and 4) does Lehman need to raise capital (publicly or privately)?

In our view, while there's likely been some client flight recently, we think the flood gates aren't open (LEH's \$3.5 billion of "core" revenues was only down 17% sequentially) and believe that Lehman's counterparties (especially the US ones) aren't going anywhere thanks to the Fed facility, Lehman's stable liquidity and their own vested interest (fear they might be next). In terms of the rating agencies, we have mixed feelings as they have likely been kept in the loop each step of the way as Lehman's options were unfolding, but unfortunately each made some strong comments after the close (Moody's said to expect a downgrade if there isn't a majority or full sale on the horizon). As for REI Global, we're in uncharted territory here, but certainly understand the merits of creating this vehicle (if possible) as opposed to a large fire sale and capital raise at distressed prices (granted, hindsight tells us they should have flushed the assets months ago). Finally, we do think Lehman will need to raise common equity, publicly or privately, as we can (and will) walk you to a pro forma tangible book value of \$16 and Tier 1 close to 10%, but Lehman's common-to-hybrid ratio is out of whack and probably forces some balancing down the road.

At the end of the day, while the valuation is intriguing even after yet another expected loss and capital raise in 4Q, it has been for a long time now and we worry that market forces are collapsing time horizons and will force a reasonably dilutive capital raise / sale at some point as Lehman tries to balance the preferences of its multiple constituents (unfortunately, they continue to lose more of their bargaining power as conditions worsen). As such, we're keeping our Neutral rating on the stock and cutting our price target to \$8, based on 0.5x our estimated pro forma tangible book value. In addition, we cut our 2009 EPS estimate to \$1.85 from \$2.00.

### Progress was Made in the Quarter

Lehman continued to make progress reducing risk exposures in 3Q, with residential mortgage exposure down 47% (including the pending sale of UK assets to BlackRock), commercial real estate assets down 18% (people wanted more here), and leveraged loans down 38%. In addition, the current carrying values for Lehman's residential mortgage and other ABS CDO exposures look pretty conservative, particularly on a relative basis (see Tables 1 below – and

yes, these valuations would produce some pretty big hits at some of the other brokers). On the flip side, we think the current carrying value of Lehman's commercial real estate exposure (\$0.85) is being viewed with a healthy amount of skepticism as investors try to reconcile back and forth between a fair intrinsic value and where the bid likely shook out in this illiquid environment. Still, to be fair, Lehman appears to have taken considerably larger marks than its peers on its commercial exposure, in 3Q and in previous quarters (though we admit we have less than perfect information). At the same time, no doubt many were probably hoping for an outright sale of a significant chunk of the commercial book, which may be one of the reasons the spin off plan is getting a lukewarm reception.

**Table 1: Lehman's Risk Exposures Continued to Decline in 3Q08**

<b>Category</b>	<b>Gross Marks 1Q07- 3Q08</b>	<b>Gross Exposure 4Q07</b>	<b>Gross Exposure 1Q08</b>	<b>Gross Exposure 2Q08</b>	<b>Gross Exposure 3Q08</b>	<b>Pro Forma Exposure</b>
Residential mortgage-related positions	\$15.4	\$32.1	\$31.8	\$24.9	\$17.2	\$13.0
Commercial mortgage & real estate held for sale	\$5.4	\$51.7	\$49.0	\$39.8	\$32.6	\$5.0
Other asset-backed (non-residential)-related positions	\$1.8	\$6.2	\$6.5	\$6.5	\$4.6	\$4.0
High-yield contingent acquisition loans and facilities	\$2.2	\$23.9	\$17.8	\$11.5	\$7.1	\$5.0
<b>Total</b>	<b>\$24.8</b>	<b>\$113.9</b>	<b>\$105.1</b>	<b>\$82.7</b>	<b>\$61.5</b>	<b>\$27.0</b>

Source: Company financials and UBS

**Table 2: Lehman's Average Carrying Value by Asset Class**

<b>3Q08 Average Carrying Value</b>	
Commercial Real Estate	\$0.85
Alt-A	\$0.39
Subprime / Second Lien	\$0.34
UK Residential Mortgages	\$0.69
Other ABS CDOs	\$0.29
Other US Residential Mortgage	\$0.45

Source: Lehman Brothers and UBS

## Are the Rating Agencies & Regulators on Board?

Given the sensitivity around Lehman's credit rating and its beleaguered stock price, it's likely that both regulators and rating agencies were kept in the loop about each step of Lehman's strategic plan as things unfolded. Given that the plan involved reducing risk exposures and increasing capital, we think the regulators were on board and we were under the impression that the rating agencies were also OK with the steps, though they might have liked an equity raise to happen in concert as well (probably expected a deal with KDB to work out). As it turns out, the rating agencies, and Moody's in particular, do not seem to be fully enamored with the steps Lehman is taking. On a conference call yesterday, Moody's made it very clear that a meaningful capital infusion through a majority stake or an outright sale of the entire firm might be needed for Lehman to avoid being downgraded. Moody's also went on to note that a large global depository institution would be much better received than an injection from the private equity or sovereign wealth world as this is more an

issue about confidence than capital. In our view, this outlook, along with Lehman's elevated CDS spreads may force the firm's hand in trying to find a strategic partner, hopefully with deep pockets. The bottom line is, while we think the spinoff of Lehman's commercial real estate assets was in part designed to buy the firm time to raise equity (hopefully at a higher price), a lack of patience from the rating agencies and investors may shorten the window of opportunity.

### Will Counterparties and Clients Stick Around?

One of the most important components for a stable Lehman is that counterparties continue to transact with the firm and its client franchise remains mostly intact. On the counterparty side, we are confident that U.S. counterparties will continue to do business with Lehman (several firms issued statements to this effect on Monday), though some of the smaller European players may be a bit more cautious and the longer Lehman's CDS spreads remain near their highs, the more likely it is that some counterparties might get nervous. For the U.S. players, we think they have a vested interest in seeing Lehman survive given that another Bear Stearns scenario would lead to heightened scrutiny for the industry and increase market distress. In addition, it's likely that the Federal Reserve and Treasury have been in contact with market participants, urging them to maintain business as usual with Lehman. At the same time, we think the existence of the Fed backstop and Lehman's still healthy liquidity profile (\$42 billion at the parent) should help give some comfort to counterparties.

In regard to the client franchise, we think that Lehman's core franchises have held up reasonably well over the past six months despite all of the turmoil, and core revenues were \$3.5 billion in 3Q (though this does exclude \$760 million of principal losses), down a reasonable 17% from 2Q given the difficult macro environment. That being said, we think Lehman's prime brokerage and long-dated derivatives/swaps businesses have likely seen real client erosion, and given the sharp sell-off in the stock and gapping out of its CDS spreads in the past few days, we think there is likely some real client loss there. At the end of the day, while we think that Lehman's revenues may see some decline given the weak macro backdrop and some client slippage, we are not forecasting a dramatic fall off and given that the firm's funding remains in place (they don't need to tap the debt markets until March), and we do not expect a run on the client franchise in the coming months.

### Will the Commercial Real Estate Spinoff Happen as Planned?

Lehman's proposed spin off of the bulk of its commercial real estate assets into a separately traded public company which would not be subject to mark-to-market accounting is expected to close in 1Q09. Under the plan, the new company would be funded with equity capital and debt financing from Lehman, at least at the outset (Lehman is hoping for third party participation). The estimated equity capital (all common) needed to fund the new entity would be 25-30% of the total asset value, so something in the neighborhood of \$6-9 billion (depending on the size of the portfolio that is ultimately spun). This significant amount of equity would take a pretty good chunk of capital out of the

“good” Lehman and potentially cause it to raise common equity (more on this below). We think the spin off structure is interesting and it buys Lehman some time to plan its next move and preserves any potential future upside for shareholders, but given that the \$33 billion of commercial real estate will remain on Lehman’s books in 4Q, we think there could be some additional negative valuation adjustments (we currently estimate a 5% hit in 4Q) which could lead to another operating loss. Bottom line, while the spin off avoids a distressed asset sale in the short-term, it is not a perfect solution given the amount of equity that will need to go with the assets and also the considerable time it will take to be completed.

### Does Lehman Need to Raise Common Equity?

The most likely answer is yes, despite seemingly reasonable pro forma ratios. Still, deciphering whether or not Lehman needs to raise additional common equity is a bit tricky given all of the moving parts, but given the market perception (gapping CDS spreads), rating agencies’ concerns, and lopsided common-to-hybrid equity mix, we think Lehman will seek an infusion, likely from a strategic partner that would take a significant equity stake in the firm. Interestingly, we think that if Lehman were able to complete the steps of its plan today (meaning the IMD sale and spin off closed immediately), the firm might be able to avoid raising equity as its capital ratios would be pretty healthy (the firm currently has a Tier 1 ratio of 11.0%, in line with Merrill and Goldman). Unfortunately, given the expected mark-to-market hits in commercial real estate in 4Q and what we think will be another operating loss, coupled with the significant drain of common equity from “good” Lehman post the spin off which will tilt the common/hybrid equity mix too much in the hybrid direction, we think the firm will need an equity infusion in the coming months which will likely lead to meaningful dilution for current shareholders (unfortunately, they just don’t have too much bargaining power). For what it’s worth, we took a stab at coming up with a pro forma book value if Lehman follows through with its strategic plan (see Table 3 below). While the tangible book value for “good” Lehman makes the current stock price look very cheap, given the high execution risk and the fact that market forces may be collapsing time horizons which could lead to reasonably dilutive capital raise or sale, we remain Neutral on the stock.

Table 3: Pro Forma Tangible Book Value for “Good” Lehman

<b>Beginning Tangible Common Equity</b>	<b>\$15,365</b>
Benefit to Tangible Equity from IMD Sale	\$3,000
Equity Allocated to REI Global	(\$8,000)
Equity Impact from Estimated 4Q Loss	(\$1,300)
<b>Adjusted Tangible Common Equity</b>	<b>\$9,065</b>
Preferreds	\$9,000
Estimated Equity Capital Raise @ \$7.00	\$5,000
<b>Pro Forma Tangible Common Equity</b>	<b>\$23,065</b>
Pro Forma Sharecount	1,400
<b>Tangible Book Value Per Share</b>	<b>\$16</b>

Source: Company financials and UBS estimates

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## ■ **Lehman Brothers**

Lehman Brothers is an international investment bank based in New York that offers services to institutions and high net worth individuals in the United States and worldwide. Lehman was spun off from American Express in 1994 as an independently owned company listed on the NYSE. The Company has three primary business segments: investment banking, capital markets and client services.

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Risks at Lehman Brothers include a weighted business mix toward fixed income and trading and the company's above-average use of equity-based compensation incentives. Additionally, economic and geopolitical factors, regulatory and litigation issues, interest rates and Fed policy, as well as market fluctuations and activity levels in the capital markets may materially affect operating results.

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### UBS Investment Research: Global Equity Rating Allocations

UBS 12-Month Rating	Rating Category	Coverage <sup>1</sup>	IB Services <sup>2</sup>
Buy	Buy	57%	38%
Neutral	Hold/Neutral	36%	35%
Sell	Sell	8%	29%
UBS Short-Term Rating	Rating Category	Coverage <sup>3</sup>	IB Services <sup>4</sup>
Buy	Buy	less than 1%	31%
Sell	Sell	less than 1%	38%

1:Percentage of companies under coverage globally within the 12-month rating category.

2:Percentage of companies within the 12-month rating category for which investment banking (IB) services were provided within the past 12 months.

3:Percentage of companies under coverage globally within the Short-Term rating category.

4:Percentage of companies within the Short-Term rating category for which investment banking (IB) services were provided within the past 12 months.

Source: UBS. Rating allocations are as of 30 June 2008.

### UBS Investment Research: Global Equity Rating Definitions

UBS 12-Month Rating	Definition
Buy	FSR is > 6% above the MRA.
Neutral	FSR is between -6% and 6% of the MRA.
Sell	FSR is > 6% below the MRA.
UBS Short-Term Rating	Definition
Buy	Buy: Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event.
Sell	Sell: Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event.



**KEY DEFINITIONS**

**Forecast Stock Return (FSR)** is defined as expected percentage price appreciation plus gross dividend yield over the next 12 months.

**Market Return Assumption (MRA)** is defined as the one-year local market interest rate plus 5% (a proxy for, and not a forecast of, the equity risk premium).

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**Company Disclosures**

Company Name	Reuters	12-mo rating	Short-term rating	Price	Price date
Lehman Brothers <sup>2, 4, 6a, 6b, 7, 16, 22</sup>	LEH.N	Neutral	N/A	US\$7.25	10 Sep 2008

Source: UBS. All prices as of local market close.

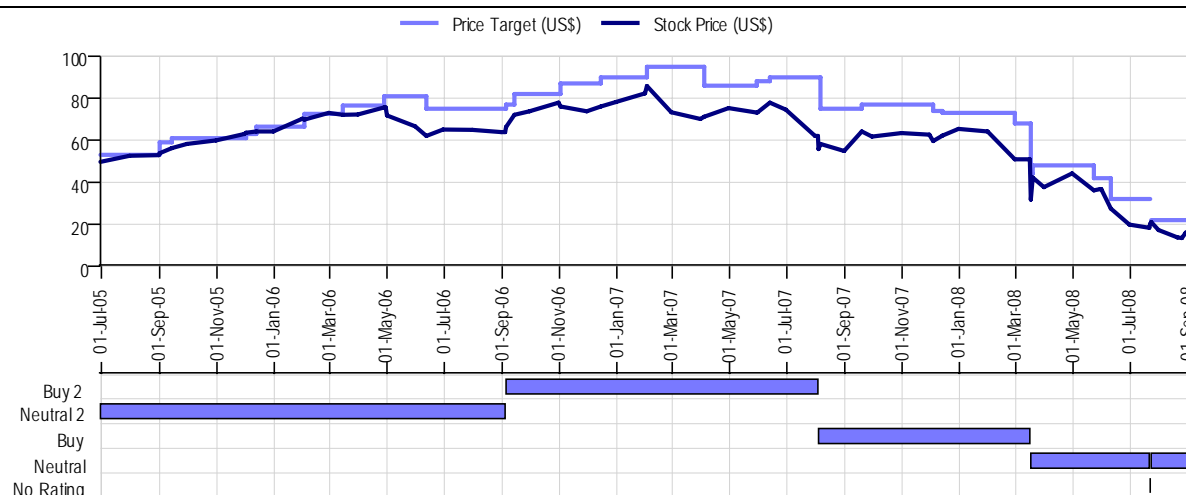
Ratings in this table are the most current published ratings prior to this report. They may be more recent than the stock pricing date

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Unless otherwise indicated, please refer to the Valuation and Risk sections within the body of this report.



## Lehman Brothers (US\$)



Source: UBS; as of 10 Sep 2008

Note: On August 4, 2007 UBS revised its rating system. (See 'UBS Investment Research: Global Equity Rating Definitions' table for details). From September 9, 2006 through August 3, 2007 the UBS ratings and their definitions were: Buy 1 = FSR is > 6% above the MRA, higher degree of predictability; Buy 2 = FSR is > 6% above the MRA, lower degree of predictability; Neutral 1 = FSR is between -6% and 6% of the MRA, higher degree of predictability; Neutral 2 = FSR is between -6% and 6% of the MRA, lower degree of predictability; Reduce 1 = FSR is > 6% below the MRA, higher degree of predictability; Reduce 2 = FSR is > 6% below the MRA, lower degree of predictability. The predictability level indicates an analyst's conviction in the FSR. A predictability level of '1' means that the analyst's estimate of FSR is in the middle of a narrower, or smaller, range of possibilities. A predictability level of '2' means that the analyst's estimate of FSR is in the middle of a broader, or larger, range of possibilities. From October 13, 2003 through September 8, 2006 the percentage band criteria used in the rating system was 10%.

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