Value Investing Congress "A Few Thoughts About Risk"

David Einhorn November 29, 2007

Disclaimer

VIAGRA is prescribed to treat erectile dysfunction (ED).

If you take any medicines that have nitrates in them (like nitroglycerin for chest pain)—every day or even once in a while—you should NOT take VIAGRA.

Discuss your general health status with your doctor to ensure that you are healthy enough to engage in sexual activity. If you experience chest pain, nausea, or any other discomforts during sex, seek immediate medical help.

Although erections lasting for more than 4 hours may occur rarely with all ED treatments in this drug class, to avoid long-term injuries, it is important to seek immediate medical help.

If you are older than age 65, or have serious liver or kidney problems, your doctor may start you at the lowest dose (25 mg) of VIAGRA. If you are taking protease inhibitors, such as for the treatment of HIV, your doctor may recommend a 25-mg dose and may limit you to a maximum single dose of 25 mg of VIAGRA in a 48-hour period.

In rare instances, men taking PDE5 inhibitors (oral erectile dysfunction medicines, including VIAGRA) reported a sudden decrease or loss of vision. It is not possible to determine whether these events are related directly to these medicines or to other factors. If you experience sudden decrease or loss of vision, stop taking PDE5 inhibitors, including VIAGRA, and call a doctor right away.

Sudden decrease or loss of hearing has been rarely reported in people taking PDE5 inhibitors, including VIAGRA. It is not possible to determine whether these events are related directly to the PDE5 inhibitors or to other factors. If you experience sudden decrease or loss of hearing, stop taking VIAGRA and contact a doctor right away.

If you have prostate problems or high blood pressure for which you take medicines called alpha blockers, your doctor may start you on a lower dose of VIAGRA.

Remember to protect yourself and your partner from sexually transmitted diseases.

The most common side effects of VIAGRA are headache, facial flushing, and upset stomach. Less commonly, bluish vision, blurred vision, or sensitivity to light may briefly occur.

Disclaimer

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Top of the Morning to You

Given some confidence level $\alpha \in (0,1)$ the VaR of the portfolio at the confidence level α is given by the smallest number I such that the probability that the loss L exceeds I is not larger than $(1 - \alpha)$

$$VaR_{\alpha} = \inf\{l \in \Re : P(L > l) \le 1 - \alpha\}$$
$$= \inf\{l \in \Re : F_{L}(l) \ge \alpha\}$$

Value-at-Risk

From Wikipedia:

"The maximum loss not exceeded with a given probability defined as the confidence level, over a period of time. It is commonly used by security houses or investment banks to measure the market risk of their asset portfolios."

Value-at-Risk

A simple definition:

95% of the time I don't expect to lose more than X

Value-at-Risk

- Should risk managers concentrate on VaR?
- Wikipedia says:

"VaR does not give any information about the severity of loss by which it is exceeded."

Broker-Dealer 2nd Quarter VaR

	<u>VaR (\$MM)</u>
Lehman Brothers	87
Bear Stearns	29
Merrill Lynch	71
Morgan Stanley	93

Broker-Dealer VaR

	2 nd Quarter	3 rd Quarter
	<u>VaR (\$MM)</u>	Net Writedowns
Lehman Brothers	87	700
Bear Stearns	29	475
Merrill Lynch	71	7,800
Morgan Stanley	93	800

Broker-Dealer VaR

	3 rd Quarter	4 th Quarter
	<u>VaR (\$MM)</u>	Net Writedowns
Lehman Brothers	100	??
Bear Stearns	35	1,200
Merrill Lynch	85	??
Morgan Stanley	84	3,700

Conclusions on VaR

- Not the appropriate way to measure risk
- Risk managers should focus on tails
- VaR in the tails does not solve Fat Tails
- Similar risk management failure in other financial institutions

FAS 159: Profiting From Your Own Demise

- FAS 159 is a new fair value accounting standard
- Allows companies to value individual Assets and Liabilities at fair value
- Fair valuing only the Asset side of the balance sheet creates a mismatch
- FAS 159 eliminates the mismatch

FAS 159: Profiting From Your Own Demise

- Fair valuing Liabilities works fine for market risk (rates up, value down)
- Problem: The issuer's idiosyncratic risk drives down the value of its own liabilities
- GAAP accounting does not equal good accounting

If your own credit spread widening counts as revenue...

... and you pay compensation as a percent of revenue ...

... the most profitable and lucrative day in the history of your firm will be ...



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Are FAS 159 Gains Real?

"I think the gains are real. It really reflects the change in fair value. There's somebody on the other side of that trade who lost money."

Bear Stearns CFO

FAS 159: Gains on Widening of Own Credit Spreads

(Third Quarter, \$ in millions)

	<u>Gains</u>	Pretax Income
Lehman Brothers	??	1,205
Bear Stearns	225	175
Merrill Lynch	600	(3,465)
Morgan Stanley	390	2,246

Lehman's FAS 159 Gain

"Within Fixed Income Capital Markets, the Firm recorded very substantial valuation reductions, most significantly on leveraged loan commitments and residential mortgage-related positions. These losses were partially offset by large valuation gains on economic hedges and other liabilities. The result of these valuation items was a net reduction in revenues of approximately \$700 million."

Lehman Press Release

Lehman's FAS 159 Gain from 10Q

Borrowings and Deposit Liabilities

(\$ in billions)	Aug 31,2007		Nov	30, 2006
Short Term Borrowings				
Amount carried at fair value (1)	\$	5.5	\$	3.8
Principal Amount	\$	5.5	\$	3.7
Deposit liabilities at banks				
Amount carried at fair value (1)	\$	13.7	\$	14.7
Principal Amount	\$	13.8	\$	14.7
Unsecured long-term borrowings				
Amount carried at fair value (1)	\$	23.0	\$	11.0
Principal Amount	\$	24.5	\$	11.1
Total Difference	\$	1.6	\$	

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Lehman's FAS 159 Gain From 10Q

(1) Substantially all of the borrowings recorded at fair value are structured notes and contain two parts: a note and an embedded forward or option component. The difference between the aggregate principal balance and the aggregate fair value represents cumulative changes in Holdings' credit spreads as well as changes to the embedded forward or option component. During the 2007 three and nine months, a substantial portion of the change in fair value is associated with the embedded forward or option component, which is risk managed and part of our capital markets activities.

Lehman 3rd Quarter Charge...

Loss on Levered Loans

"Well over \$1 billion"

Loss on Residential Mortgages

"Less than levered loans"

FAS 159 Gain on Liabilities

\$1.6 billion less the 'embedded option'

Total

\$700 million

Lehman Stock Price

Price since earnings release on September 17, 2007



Some Lehman History

- The 1998 credit meltdown created rumors
 Lehman reached the brink of insolvency
- While insolvency was overblown, the mortgage market stopped
- Lehman had large mortgage exposure, but took no writedowns (mark-to-model)
- The market rapidly recovered and Lehman pulled through

Why has Lehman held up?

- A "good quarter" reported earnings of \$1.54
- They say they hedged
- Originate to move, not own
- November estimates of \$1.75 have not come down
- 2008 estimates of \$7.75 a record year have not come down
- Sell-side consensus chance of write-down is "minimal"

Lehman's Balance Sheet

Assets (\$ in millions)		ug 31,2007	N	ov 30, 2006
Cash and cash equivalents	\$	7,048	\$	5,987
Segregated cash and securities		10,579		6,091
Financial instruments and other positions		302,297		226,596
Collateralized agreements		287,427		225,156
Receivables		38,391		27,971
Property, equipment and other assets		9,366		8,382
Identifiable intangibles and goodwill		4,108		3,362
Total Assets	\$	659,216	\$	503,545

Liabilities (\$ in millions)		ug 31,2007	Nov 30, 2006			
Short-term and long-term borrowings	\$	171,580	\$	123,228		
Short financial instruments		140,840		125,960		
Collaterized financings		256,077		176,557		
Payables and accrued liabilities		68,986		58,609		
Total Liabilities	\$	637,483	\$	484,354		
Stockholder's equity		21,733		19,191		
Total liabilities and stockholders' equity	\$	659,216	\$	503,545		

Financial instruments and other inventory positions owned and shorted

		Ow	ned		Short						
(\$ in millions)	Aug	g 31, 2007	No	v 30, 2006	Aug	g 31, 2007	No	ov 30, 2006			
Mortgages and mortgage-backed	\$	88,007	\$	57,726	\$	246	\$	80			
Government and agencies		37,108		47,293		63,776		70,453			
Corporate debt and other		52,151		43,764		8,620		8,836			
Corporate equities		64,283		43,087		40,393		28,464			
Derivatives and other contracts		35,711		22,696		27,725		18,017			
Real estate held for sale		20,044		9,408		-		-			
CP and other money market		4,993		2,622		80		110			
Total	\$	302,297	\$	226,596	\$	140,840	\$	125,960			

Securitization Activity

	Aug 31, 2007						Nov 30, 2006					
		Resid	ent	ial		Other	er Reside			ial	(Other
(\$ in billions)		IG ⁽¹⁾		HY				IG ⁽¹⁾		HY		
Interests in securitizations	\$	9.2	\$	1.7	\$	3.4	\$	5.3	\$	2.0	\$	0.6
Weighted-average life (years)		7		6		5		5		6		5
Average constant prepayment rate Weighted-average credit loss	1	5.4%	2	26.4%		-	2	27.2%	2	29.1%		-
assumption		0.2%		2.3%		0.5%		0.6%		1.3%		

⁽¹⁾ The amount of investment-grade interests in securitizations related to agency CMOs was approximately \$4.5 billion and \$1.9 billion at Aug 31, 2007 and Nov 30, 2006

Lending-Related Commitments

	Total Contractural Amount							
(\$ in millions)	Au	g 31,2007	No	Nov 30, 2006				
Lending Commitments								
High grade ⁽¹⁾	\$	26,977	\$	17,945				
High yield ⁽²⁾	\$	11,497	\$	7,558				
Contingent acquisition facilities								
Investment grade	\$	4,104	\$	1,918				
Non-investment grade	\$	27,039	\$	12,766				
Mortgage commitments	\$	12,432	\$	12,246				
Secured lending transactions	\$	93,155	\$	82,987				
Total	\$	175,204	\$	135,420				

⁽¹⁾ Net credit exposure, after consideration of hedges, of \$14.4 billion and \$4.9 billion at Aug 31 2007 and Nov 30 2006.

⁽²⁾ Net credit exposure, after consideration of hedges, of \$10.4 billion and \$5.9 billion at Aug 31 2007 and Nov 30 2006.

Other Contingent Exposures

	Total Contractural Amount							
(\$ in millions)	Aug 31,2007		Nov 30, 2006					
Derivative Contracts (1)	\$ 767,563	\$	534,585					
Municipal securities commitments	\$ 7,313	\$	1,599					
Other commitments with VIEs	\$ 8,334	\$	4,902					
Standby letters of credit	\$ 1,792	\$	2,380					
Private equity commitments	\$ 5,016	\$	1,088					
Total	\$ 790,018	\$	544,554					

⁽¹⁾ We believe the fair value of the derivative contracts is a more relevant measure of the obligations because we believe the notional value amount overstates the expected payout. The fair value of these derivative contracts approximated \$11.1 billion and \$9.3 billion as of Aug 31 2007 and Nov 30 2006

No Loss on Level III Instruments

(\$ in millions)	Balance May 31	chases, es, Net	Transfers In/(Out)		ains/ osses)	Balance Aug 31
Mortgages and mortgage-backed	\$11,920	\$ 1,854	\$	9,588	\$ (616)	\$22,746
Corporate debt and other	3,592	(690)		96	36	3,034
Corporate equities	4,048	658		261	88	5,055
Derivative assets, net	1,280	(59)		(160)	541	1,602
Total	\$20,840	\$ 1,763	\$	9,785	\$ 49	\$ 32,437

What Will Happen

- Either they will recognize losses or they won't
- If they do, everyone will be surprised
- If they don't, they will underearn prospectively those banks that did

2006 Revenue Mix

- Fixed Income ≈ 48%
- Securitization ≈ 15%
- Underwriting and advisory ≈ 18%

Criteria Caixa Net Asset Value

(all numbers in € millions; prices as of Nov 28, 2007)

Public Investments

Gas Natural	6,738
Telefonica	5,946
Repsol YPF	3,799
Abertis	2,844
Banco BPI	1,047
Other public	1,585
	€ 21,959

Private Investments € 4,766

Taxes on embedded gains
$$(1,843)$$
NAV After-Tax€ 23,745NAV per share€ 7.04

Current price € 5.21
Discount to NAV 26.0%

Criteria Caixa

- IPO'd as an investment company
- Parent La Caixa is the largest Spanish retail savings bank
- Formation of portfolio
- Near-term strategy
- Long-term transformation from investment company to operating company
- Discount to NAV should become a premium to book