

## Brokerage Industry

### SECTOR REVIEW

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### Deja Vu and then Some

We've cut numbers (too many times to count), reduced ratings and reduced target prices. The brokerage stocks have been down as much as 66%, but are now fully 40% off their lows. Have they hit bottom? Every cycle is different. But there are also parallels to be considered. Take a look back at Citi's predecessor Citibank through the 1990 cycle. We see similar strategic actions and price performance today for those weighed down by excess credit exposures.

- **Citibank 1990—The Downside:** Citi's shares dropped 77% from a peak of \$35 (split adjusted) in October of 1989 to \$8 in December of 1991—a 26 month period. Valuation-wise, the shares bottomed out at 0.4x book and tangible book; book value had declined 16% over that period. From the bottom, the stock was volatile, but range bound, for two years.
- **What's Different This Time** for the brokers, is their credit exposures and with that, earnings losses—a first for several—that have compromised the heretofore integrity of book values, for Merrill, Lehman and Citi. All brokers are not equal. Goldman's book value is up 34% since year end 2006.
- **Broker Price Performance...** our brokerage index—GS, LEH, MER, MS—has been down as much as 66% since its peak in January 2007 (17 months through July 2008). The shares are now trading at 1.3x stated book and 1.6x tangible book value, on average. Lehman and Merrill shares have declined more materially, reflective of their mortgage/structured products inventories. All have seen new valuation lows.
- **What of Citi's Recovery...** Citi's shares hit their low point in December of 1991—the recession was three quarters past and earnings had bottomed in the previous quarter. Prior to hitting its low point and for a period of two years, the shares traded in a relatively tight range, between \$10 and \$17 per share (with four moves of 40%+), before recovering their lost value, and then some over the ensuing year and a half (in sync with a clear earnings recovery).
- **Our Stance on the Brokerage Stocks...** We advocate a cautious stance in the near term with macro economic weakness continuing to top the list of concerns and keeping the stocks in a trading range. Sustained positive earnings momentum supported Citibank's share price appreciation coming out of the early 1990 cycle. We expect the same to hold true this time around. In the meantime, stick with strength; Goldman is our favorite; Morgan Stanley follows.

**DISCLOSURE APPENDIX CONTAINS IMPORTANT DISCLOSURES, ANALYST CERTIFICATIONS, INFORMATION ON TRADE ALERTS, ANALYST MODEL PORTFOLIOS AND THE STATUS OF NON-U.S ANALYSTS. FOR OTHER IMPORTANT DISCLOSURES, visit [www.credit-suisse.com/researchdisclosures](http://www.credit-suisse.com/researchdisclosures) or call +1 (877) 291-2683. U.S. Disclosure:** Credit Suisse does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. Customers of Credit Suisse in the United States can receive independent, third party research on the company or companies covered in this report, at no cost to them, where such research is available. Customers can access this independent research at [www.credit-suisse.com/ir](http://www.credit-suisse.com/ir) or call 1 877 291 2683 or email [equity.research@credit-suisse.com](mailto:equity.research@credit-suisse.com) to request a copy of this research.

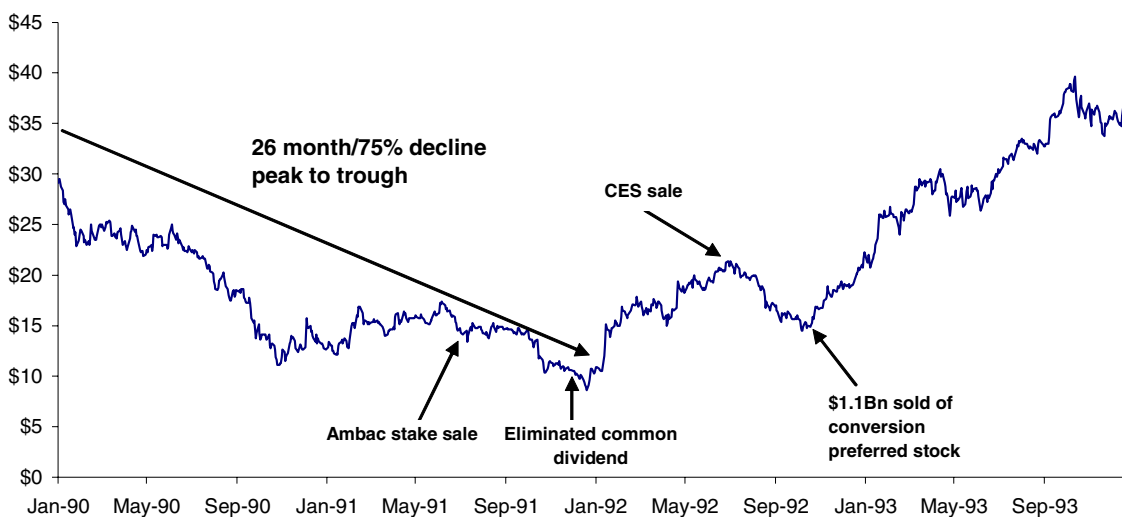
# Déjà vu and then Some

We've cut numbers (too many times to count), reduced ratings and reduced target prices. The brokerage stocks have been down as much as 66%, but are now fully 40% off their lows. Have they hit bottom? Every cycle is different. But there are also parallels to be considered. Take a look back at Citi's predecessor Citibank through the 1990 cycle. We see similar strategic actions and price performance today for those weighed down by excess credit exposures.

## The 1990 Cycle—Citi as a Proxy

Citi's shares dropped 77% from a peak of \$35 (split adjusted) in October of 1989 to \$8 in December of 1991--a 26 month period. Valuation-wise, the shares bottomed out at 0.4x book and tangible book; book value had declined 16% over that period. Working out of this, Citi rationalized its asset base--selling Card Establishment Services (CES) and its Ambac stake, eliminated its common dividend; and raised \$3.3 billion in capital (\$2.6Bn from securities sold to outside investors and \$0.7Bn in gains from sale of non-strategic assets, amounts considered to be quite substantial at the time). Exhibits 1-3 detail the price performance and valuation history of Citibank through the 1990 credit cycle.

**Exhibit 1: Heritage Citibank Stock Price History**



Source: Company data, FactSet

**Exhibit 2: Citibank P/BV History**



Source: FactSet

**Exhibit 3: Citibank P/TBV History**

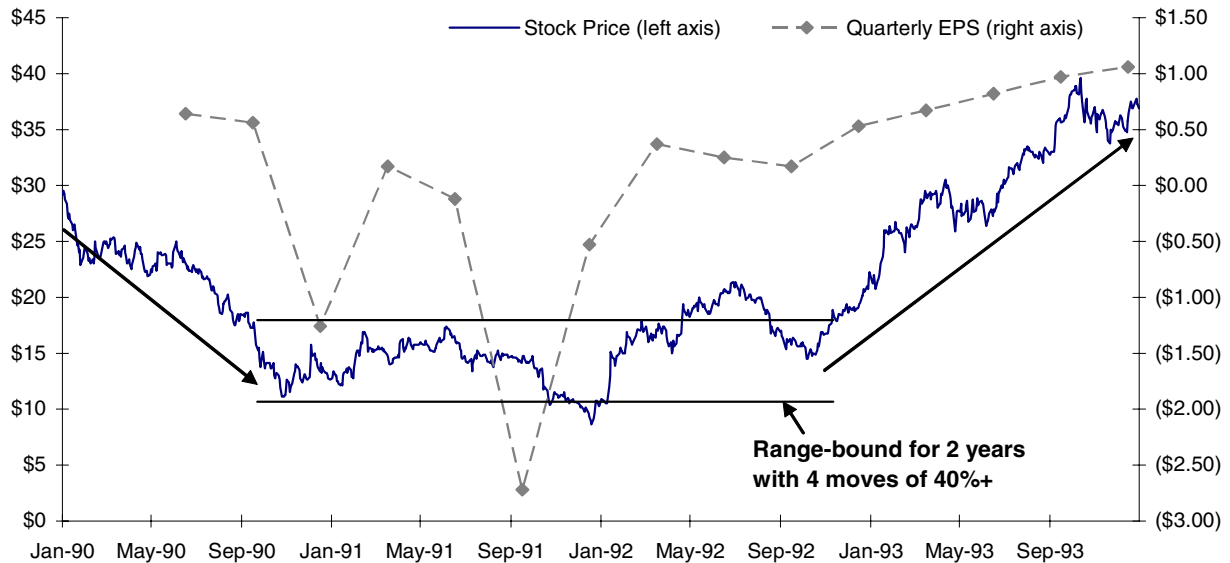


Source: FactSet

**What of Citi's Recovery...**

Citi's shares hit their low point in December of 1991—the recession was three quarters past and earnings had bottomed in the previous quarter. Prior to hitting its ultimate low point and for a period of two years around that, the shares traded in a relatively tight range, between \$10 and \$17 per share (with four moves of 40%+), before recovering all of their lost value, and then some over the ensuing year and a half. Importantly, that recovery came in lock step with positive earnings per share momentum. See Exhibit 4.

**Exhibit 4: Heritage Citibank Stock Price and Quarterly EPS History**

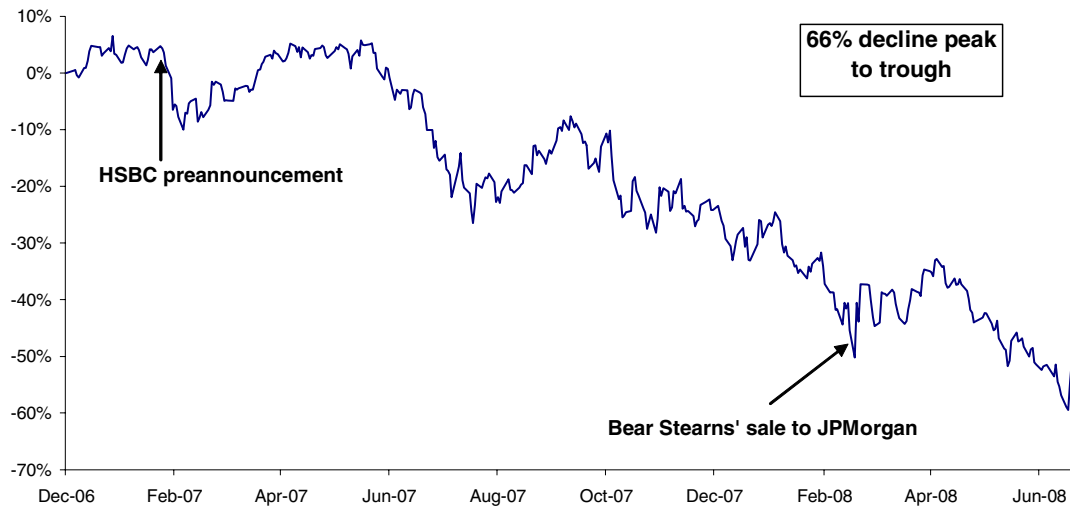


Source: Company data, FactSet

**This Time Around... Brokers in the Credit Hot Seat**

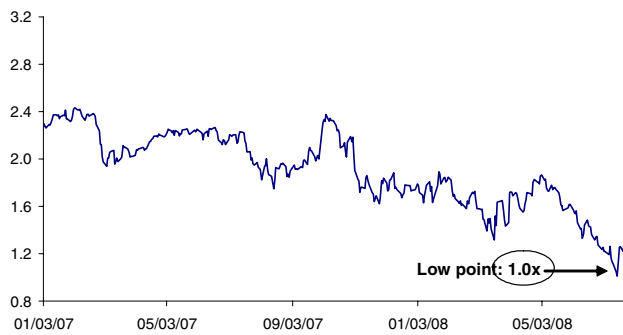
The brokerage group has been down as much as 66% from its January 2007 peak with the shares now trading at 1.3x stated and 1.6x tangible book value, on average—figures that are now overstated with the exclusion of Bear Stearns. Merrill Lynch, Lehman and Citi have followed the path of Citibank/1990 almost perfectly, reflective of their outsized mortgage/structured products inventories. Goldman, Morgan Stanley and JPMorgan, fundamentally stronger, have fared somewhat better.

**Exhibit 5: Brokerage Index Price Performance Chart**



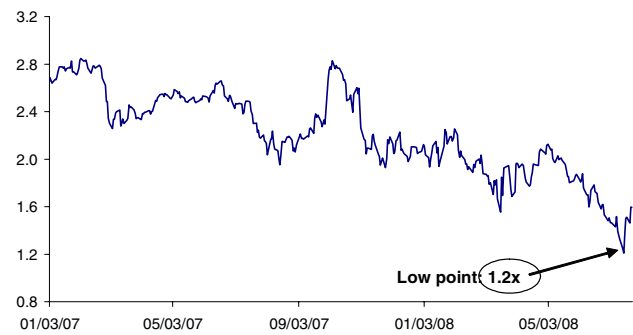
Brokerage index consists of GS, LEH, MER, and MS. As of July 23, 2008. Source: SNL

**Exhibit 6: CS Brokerage Index P/BV History**



Brokerage Index: GS, LEH, MER and MS. As of July 23, 2008. Sources: FactSet, Company data

**Exhibit 7: CS Brokerage Index P/TBV History**

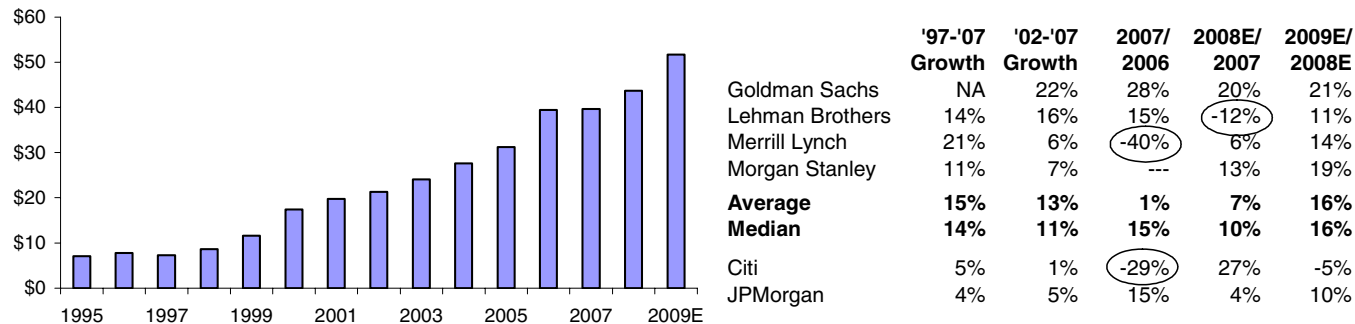


Brokerage Index: GS, LEH, MER and MS. As of July 23, 2008. Sources: FactSet, Company data.

## Book Values Not Always Safe

What's different this time around, for the brokers, is their credit exposures and with that, earnings losses—a first for several—that have compromised the heretofore integrity of book values, for Merrill, Lehman and Citi. Periods of book value decline are highlighted in Exhibits 8 and 9 below. Interestingly enough, the hits to book value are pretty much in synch with Citibank's 1989-1991 book value per share decline. Again, all brokers are not equal; Goldman's book value is up 34% since year end 2006.

**Exhibit 8: Tangible Book Value Growth and Destruction**



Graph based on average tangible book value per share of GS, LEH, MER and MS. Growth rates based on best-fit regression. Source: Company data

**Exhibit 9: Book Value Per Share Deterioration**

Down Cycle	Duration (years)	Peak/Trough Decline	Recovery	
			Year 1 Increase	Years 1-2 Increase
Citibank: 1989-1991	2	-16%	2%	23%
Citi: 2Q07-2Q08	1	-22%	---	---
LEH: 1Q08-2Q08	0	-13%	---	---
MER: 2Q07-2Q08	1	-43%	---	---
MS: 3Q07-4Q07	0	-11%	---	---

Sources: Company data, Credit Suisse estimates

**New Lows for Broker Valuations**

This time around, reflective of the earnings losses sustained/the vulnerability of book values, the brokerage stocks have seen new low points in price/book and price/tangible book based valuations. Exhibit 10 is a look at brokerage industry valuations, through the cycle. We've looked at cyclical trough points based on daily low points on a price to book and price to tangible book basis.

**Exhibit 10: Historical Trough Valuations**

	GS	LEH	MER	MS	Broker Median
<b>Price/Tangible Book Value Multiples</b>					
Current	2.2x	0.8x	1.7x	1.5x	1.6x
2008 trough point	1.8x	0.5x	1.2x	1.2x	1.2x
2006 trough point	2.6x	2.3x	1.7x	2.0x	2.1x
2005 trough point	2.6x	2.2x	2.1x	2.1x	2.2x
2004 trough point	2.3x	2.0x	1.9x	2.1x	2.0x
2002/prior cyclical trough	2.1x	1.3x	1.4x	1.6x	1.5x
1998 trough point	---	0.7x	1.4x	1.9x	1.4x
<b>Price/Stated Book Value Multiples</b>					
Current	1.9x	0.6x	1.4x	1.3x	1.3x
2008 trough point	1.5x	0.4x	1.0x	1.0x	1.0x
2006 trough point	2.1x	1.8x	1.6x	1.8x	1.8x
2005 trough point	1.8x	1.7x	1.6x	1.9x	1.8x
2004 trough point	1.8x	1.5x	1.5x	1.9x	1.7x
2002/prior cyclical trough	1.6x	1.3x	1.1x	1.5x	1.4x
1998 trough point	---	0.7x	1.4x	1.7x	1.4x
Historical average	2.5x	1.9x	2.2x	2.9x	2.4x

New lows established for each and every broker

Historical averages calculated from 1998. MER book value pro forma for capital raisings. Source: Company data, Credit Suisse estimates. Prices as of July 23, 2008.

**What Drives Recovery?**

**Historical Capital Markets Cycles**

Typically, as detailed in Exhibits 11-12, brokerage industry down cycles have lasted for one year. That's not to say a cycle can't be longer. Revenues declined for three years in the wake of the tech bubble. This time around... summer of 2008 marks the one year point of decline with 1H07 having been the peak in revenues and earnings for the brokers.

**Exhibit 11: Revenue Downside and Recovery**

Down Cycle	Duration (years)	Peak/Trough Decline	Recovery	
			Year 1 Increase	Years 1-2 Increase
1989-1990	1.0	-9%	12%	16%
1993-1994	1.0	-2%	35%	69%
2000-2003	3.0	-41%	11%	59%
2006-2007 (1)	1.0	-10%	---	---
2006-2008E (1)	2.0	-23%	---	---
1H07-2H07 (1)	---	-55%	---	---
<b>Median</b>	<b>1.0</b>	<b>-9%</b>	<b>12%</b>	<b>59%</b>
<b>Average</b>	<b>1.7</b>	<b>-16%</b>	<b>19%</b>	<b>48%</b>

A revenue down cycle occurs every 4-5 years

**Exhibit 12: Pretax Income Downside and Recovery**

Down Cycle	Duration (years)	Peak/Trough Decline	Recovery	
			Year 1 Increase	Years 1-2 Increase
1980-1981	1.0	-5%	42%	78%
1983-1984	1.0	-58%	157%	243%
1986-1990	4.0	-103%	NM	NM
1993-1994	1.0	-87%	557%	899%
1997-1998	1.0	-20%	66%	114%
2001-2002	1.0	-34%	142%	98%
2006-2007 (1)	1.0	-65%	---	---
2006-2008E (1)	2.0	-79%	---	---
1H07-2H07 (1)	---	-143%	---	---
<b>Median</b>	<b>1.0</b>	<b>-58%</b>	<b>142%</b>	<b>114%</b>
<b>Average</b>	<b>1.5</b>	<b>-53%</b>	<b>193%</b>	<b>286%</b>

A pretax income down cycle occurs every 3-4 years

(1) Based on CS actual and forecast results for the 5 major U.S. headquartered investment banks. All other data is industry/SIA based. Source: Company data, SIA, Credit Suisse estimates.

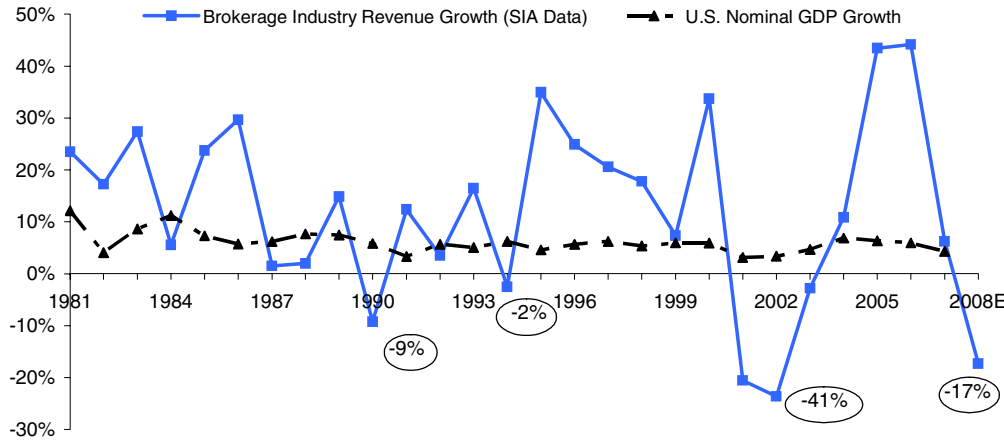
**Keys to a Sustained Recovery—Macroeconomic Growth and Inventory Reductions**

Given the strong historical correlations, it's clear that a healthier global macro-economic outlook is key to a sustained turn in brokerage industry revenue growth prospects. It's

equally as clear that excess inventory positions must be reduced and sooner rather than later, to free up capacity to transact and take risk and reduce exposure to incremental macroeconomic weakness. In the case of the brokers, we expect the earnings recovery to come more quickly (than for the banks), with mark to market accounting accelerating the brokers' recognition of losses. Strip out those write-downs and business is reasonably healthy.

We refer readers to our note, "If Not for the Write-Downs..." of July 23, 2008.

**Exhibit 13: Broker Industry Revenue versus U.S. Nominal GDP Growth**



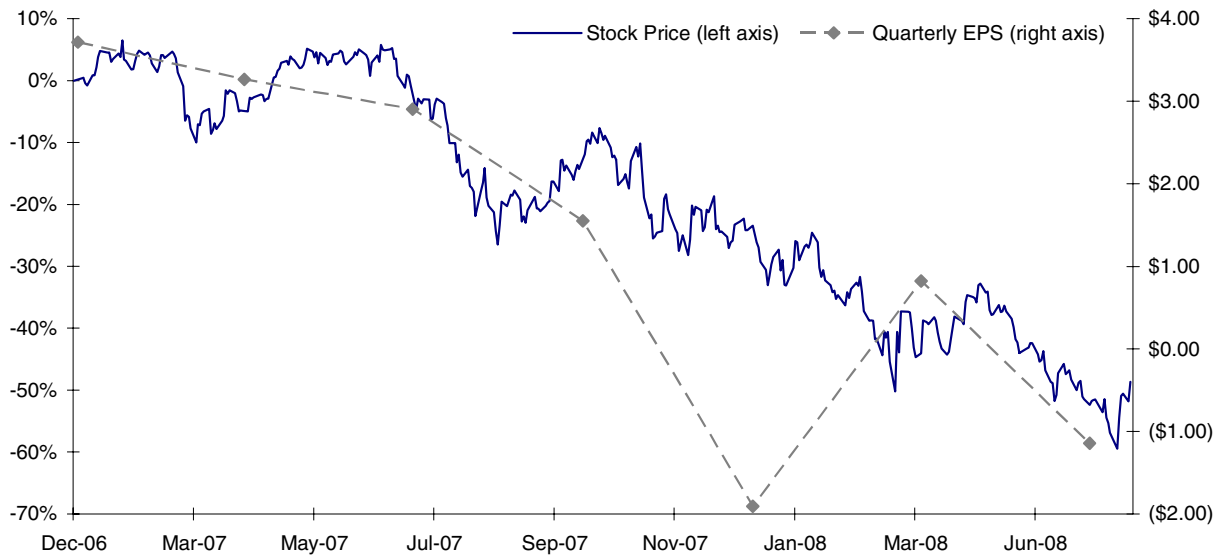
2007 and 2008 broker revenue growth is the average of GS, LEH, MER, and MS.. Sources: SIA, IMF, BEA, Credit Suisse estimates

## Our Stance on the Stocks

We advocate a cautious stance in the near term with macro economic weakness continuing to top the list of concerns and keeping these stocks in a trading range (not terribly dissimilar though likely shorter in duration than Citibank through the 1990 cycle). Intermediate to longer term, with valuations discounting much of the risk inherent in the current environment, there's money to be made. Stick with strength; Goldman is our favorite; Morgan Stanley follows.

Exhibit 14 details our brokers price performance relative to quarterly EPS momentum. Sustained positive earnings momentum supported Citibank's share price appreciation coming out of the early 1990 cycle. We expect the same to hold true this time around.

**Exhibit 14: Brokerage Index Price Performance Chart and Quarterly EPS History**

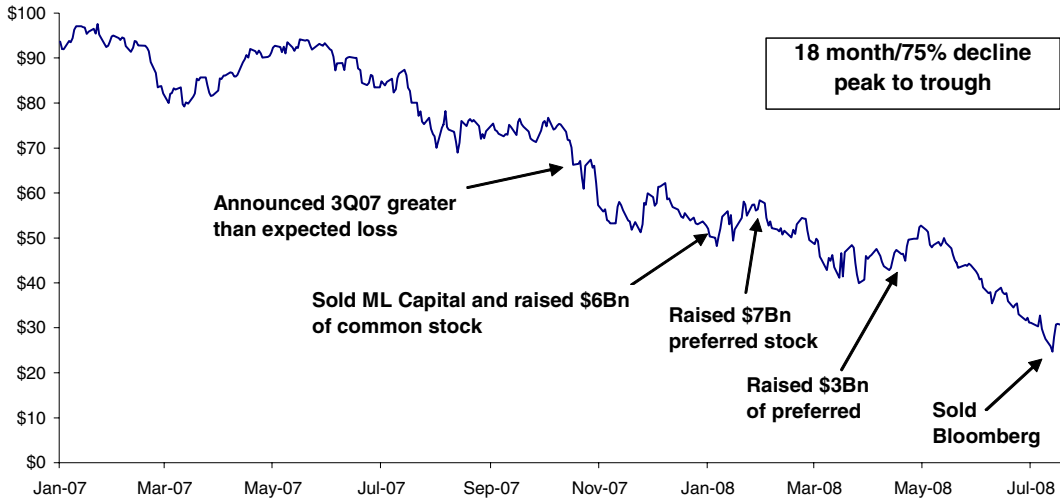


As of July 23, 2008. Brokerage index consists of GS, LEH, MER, and MS. Quarterly EPS is GS, LEH, MER, and MS average. Source: SNL

# Appendix: Performance Parallels to Citibank 1990

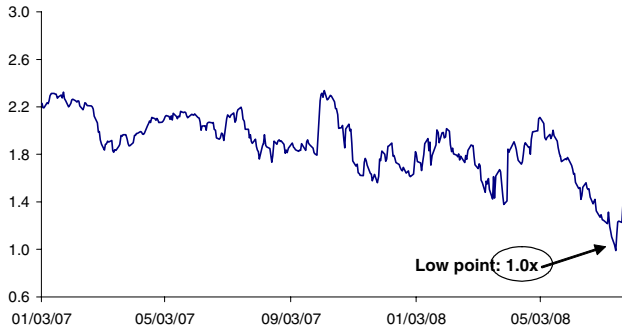
## Merrill Lynch

**Exhibit 15: Merrill Lynch Stock Price History**



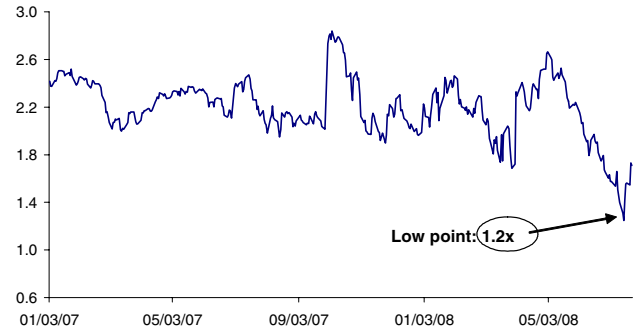
As of July 23, 2008. Source: FactSet, Company data

**Exhibit 16: Merrill Lynch P/BV History**



As of July 23, 2008. Sources: FactSet, Company data

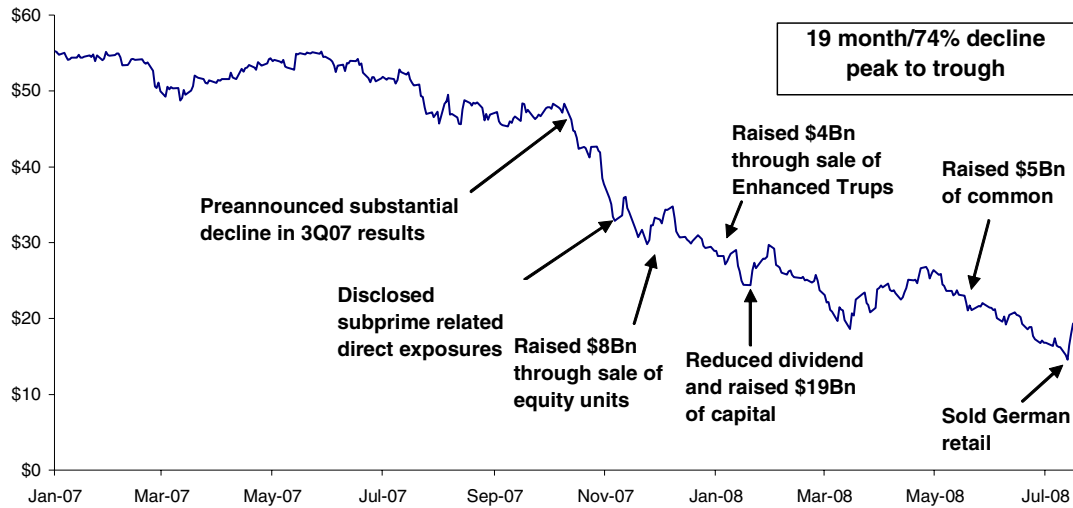
**Exhibit 17: Merrill Lynch P/TBV History**



As of July 23, 2008. Sources: FactSet, Company data

**Citi**

**Exhibit 18: Citi Stock Price History**



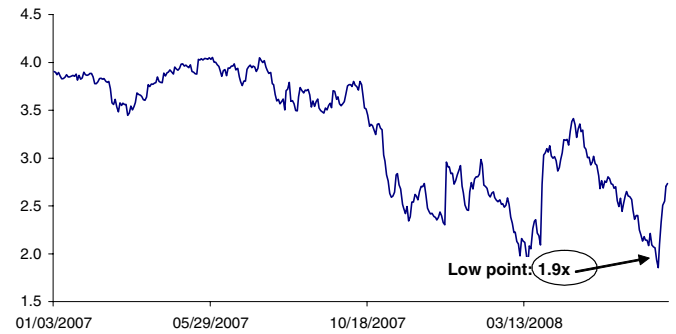
As of July 23, 2008. Source: FactSet, Company data

**Exhibit 19: Citi P/BV History**



As of July 23, 2008. Sources: FactSet, Company data

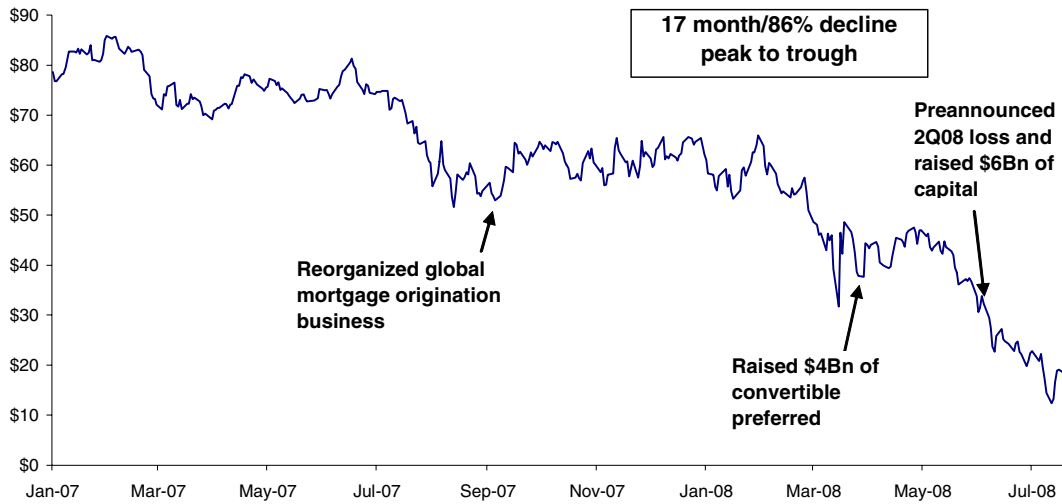
**Exhibit 20: Citi P/TBV History**



As of July 23, 2008. Sources: FactSet, Company data

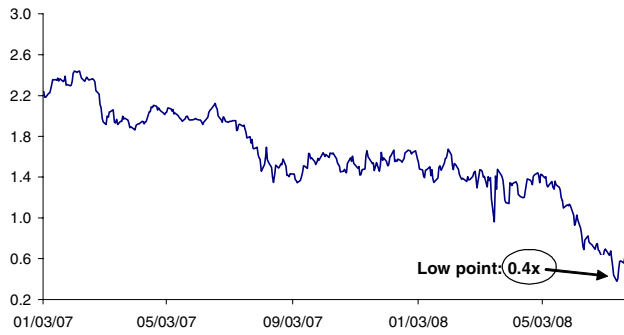
# Lehman Brothers

**Exhibit 21: Lehman Brothers Stock Price History**



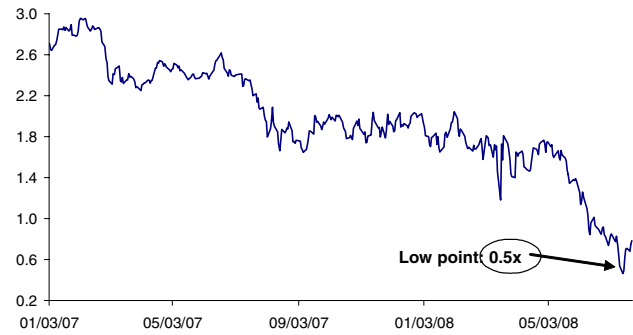
As of July 23, 2008. Source: FactSet, Company data

**Exhibit 22: Lehman Brothers P/BV History**



As of July 23, 2008. Sources: FactSet, Company data

**Exhibit 23: Lehman Brothers P/TBV History**



As of July 23, 2008. Sources: FactSet, Company data

**Companies Mentioned** (Price as of 22 Jul 08)

Citi (C, \$20.89, NEUTRAL, TP \$22.00)  
 Goldman Sachs Group, Inc. (GS, \$188.04, OUTPERFORM, TP \$275.00)  
 JPMorgan Chase & Co. (JPM, \$40.86, OUTPERFORM, TP \$55.00)  
 Lehman Brothers (LEH, \$20.20, NEUTRAL [V], TP \$35.00)  
 Merrill Lynch (MER, \$34.18, OUTPERFORM, TP \$50.00)  
 Morgan Stanley (MS, \$38.67, OUTPERFORM, TP \$60.00)

## Disclosure Appendix

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<b>Restricted</b>	2%	

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