# In the $\mathcal{S u p r e m e}$ Court of the Oinited States 

Goldman Sachs Group, Inc., ET AL., PETITIONERS

$v$.

Arkansas Teacher Retirement System, et al.
$\qquad$
ON WRIT OF CERTIORARI
TO THE UNITED STATES COURT OF APPEALS
FOR THE SECOND CIRCUIT

## SUPPLEMENTAL JOINT APPENDIX (VOLUME 3; PAGES 805-998)

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Appendix A: Court of appeals opinion, April 7, 2020

Appendix B: District court opinion, August 14, 2018

Appendix C: Court of appeals opinion, January 12, 2018
Appendix D: District court opinion, September 24, 2015

Appendix E: Court of appeals order denying rehearing, June 15, 2020

January 29, 2007
Stock Rating:
Sector Outperformer

Sector Weighting:
Overweight

| 12-18 mo. Price Target | $\$ 250.00$ |
| :--- | ---: |
| GS-NYSE (1/29/07) | $\$ 211.04$ |
| Key Indices: S\&P 500, BarraVal, NYSE, S\&P 100 |  |
| 3-5-Yr. EPS Gr. Rate (E) | $25.0 \%$ |
| 52-week Range | $\$ 136.90-\$ 220.51$ |
| Shares Outstanding | 471.0 M |
| Float | 379.6 M Shrs |
| Avg. Daily Trading Vol. | $5,144,350$ |
| Market Capitalization | $\$ 99,399.8 \mathrm{M}$ |
| Dividend/Div Yield | $\$ 1.40 / 0.7 \%$ |
| Fiscal Year Ends | November |
| Book Value | $\$ 72.62$ per Shr |
| 2007 ROE (E) | $27.2 \%$ |
| LT Debt | $\$ 129.3 \mathrm{~B}$ |
| Preferred | $\$ 3,100.00 \mathrm{M}$ |
| Common Equity | $\$ 35.8 \mathrm{~B}$ |
| Converible Available | No |


| Earnings per Share | Prev | Current |
| :--- | ---: | ---: |
| 2006 | $\$ 19.69 \mathrm{~A}$ |  |
| 2007 | $\$ 23.00 \mathrm{E}$ | $\$ 22.60 \mathrm{E}$ |
| 2008 |  | $\$ 26.25 \mathrm{E}$ |
| P/E |  |  |
| 2006 |  | 10.7 x |
| 2007 | 9.2 x | 9.3 x |
| 2008 |  | 8.0 x |



## Company Description

Goldman Sachs Group, Inc. and its subsidiaries provide investment banking, securities, and investment management services worldwide.
www.gs.com

## Goldman Sachs Group

## Highlights from Meeting with Goldman Sachs CFO David Viniar

- We met with David Viniar, CFO of Goldman Sachs, almost a year after he made the now famous pronouncement that he'd never seen a better operating environment in 25 years. Our takeaway from yesterday's meeting is that his sentiment now has extended into 26 years.
- Liquidity is rich and deals are increasingly more global in nature. China continues to be GS's key growth market, but alternative energy and infrastructure look robust. Asset and wealth management will also be prime areas of growth and focus.
- We are slightly trimming our well above consensus first-quarter estimates due to lower expected incentive fees in asset management ( $\$ 0.10-\$ 0.15$ per share by our estimates) and what now looks like our admittedly too high trading revenues (remember very tough 1Q06 comparison).
- Our outlook on GS is as bullish today as it was a year ago. GS is involved in 1 in 3 deals globally, a fact that few could boast of in any industry, let alone a fast-growing industry. Further, GS is simply the fastest growing in the fastest growth businesses within global capital markets.

Stock Price Performance


Source: Reuters
All figures in US dollars, unless otherwise stated.
07.71039 © 2007

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See "Price Target Calculation" and "Key Risks to Price Target" sections at the end of this report, where applicable.

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We met with Goldman Sachs CFO David Viniar, almost a year after he made the now famous pronouncement that he'd never seen a better operating environment in 25 years. Our takeaway from yesterday's meeting is that his sentiment now extends into 26 years. Overall, Viniar remained optimistic that the global environment today is good as econorric growth continues to be strong, capital is plentiful, and activity levels are high. Notably, he emphasized that Goldman's biggest growth opportunities are in China, in the infrastructure business, and in alternative energy investments.

Our outlook on Goldman Sachs is as bullish today as it was a year ago, even in the face of its impressive stock price rise over the same time period. Goldman is not only the dominant force in the global M\&A market, which grew to its highest level in history and 2007, is poised even higher; GS is literally in ONE OF EVERY THREE deals. There are few, if any, companies worldwide that can boast of similar market share dominance in any industry, let alone in a growing industry. Further, Goldman is growing the fastest in the fastest-growing markets. With roughly $50 \%$ of revenues coming from outside the US, Goldman is growing the most in China, Japan, and Europe.

We continue to rate GS Sector Outperformer with a $\$ 250$ price target, as we remain bullish on the continued robust growth of the capital markets and on GS's consistent ability to grow its EPS with a solid ROE. The firm generates the highest revenue growth vs. its peers, possesses dominant market share in the highest margin businesses, has an impressive presence in Japan/China, and in our opinion will continue to record earnings upside from its private investment gains.

## Several key takeaways from our meeting:

1: China represents Goldman's biggest growth opportunity. Goldman is singly the best-positioned foreign investment bank within China. Last year, the company got the highly coveted role of investor/advisor to ICBC as well as underwrote the Bank of China deal. Goldman has had a presence in China for a long time and seems to have a very good reputation, hence resulting in the firm doing most of the biggest China deals. Furthermore, Viniar emphasized that Goldman and UBS were the only two major brokers that had securities licenses in China and in this capacity China was the only region where Goldman did not have to compete with the rest of the world. In fact, China was no longer offering these licenses for the time being. With this license, Goldman is allowed to underwrite ' $A$ ' shares and participate in domestic $M \& A$, bond underwriting, and wealth management. We believe Goldman's competitive lead is vast in China as well as in greater Asia. In its "statesmanship commitment" to the development of capital markets, we beljeve GS employees go above and beyond the typical role of investment bank to provide guidance and counseling to soon to be public and public companies as to best practices in dealing with public investors. Goldman continues to advise ICBC on a myriad of on going capital markets issues.
( The infrastructure business will be a major area of investment and advisory focus. Viniar believes that the infrastructure business will become very large in the US as municipalities will see the clear benefit of leveraging currently unlevered assets, freeing up capital, and perhaps ultimately delivering best execution for its municipal services. He thinks that the volumes within the US will be in the multi-billions and will be a major source of deal flow over the coming years.

Commodities remain a solid growth revenue source. Active in commodities since 1981, commodities trading and operation have been a cornerstone to the GS trading platform long before the recent "multi-year bull
CIBC World Markets
market in commodities." When questioned whether GS had a more difficult time generating outsized profits in a declining oil and gas price trending market, Viniar cited its recent success in the rates and currency markets in the face of 17 rate hikes and reasonable volatility. Provided there is somewhat of a trend and client activity remains high, profits should remain solid.
i The trading business is a significant part of the GS franchise and will continue to grow. Viniar indicated that the firm had very stringent risk controls and noted that the biggest risk to trading was not necessarily the incurred trading losses but rather a general slowdown in business. Furthermore, while trading revenues are very volatile quarterly, on an annual basis it's a consistently growing business.

1. Viniar's top 3 fears of what will hinder economic growth are: 1. Creditcredit spreads may widen and lead to defaults. However, Viniar did note that GM was downgraded but only negatively impacted credit markets for one month. 2. Protectionism-anything that hinders the free flow of capital around the world and hence globalization. 3. Inflation.

## Other Odds and Ends From the Meeting

$\sqsubset$ The pool for buyers of everything, including risk, is so far broader today, which may mean the emergence of a different market than UScentric and demand-concentrated markets of the past. Specifically, according to Viniar, derivatives have been very good for the financial markets as they allow risk to be sliced and redistributed to those who want it.
$\sqsupset$ Overall, opportunities in the mortgage business are strong; the weak link is subprime. Viniar noted that the mortgage business should be viewed in two separate ways, commercial and residential. According to him, the commercial mortgage business is terrific (i.e. Equity Office Properties Trust), as there exists a lot of money for financing while the residential mortgage business is solid but less buoyant. Within residential mortgages, the weak link is subprime. Viniar believes that the subprime lending business witl worsen before it gets better as the market normalizes, forcing more subprime lenders to exit this business.

One of Goldman's main advantages is its ability to offer a comprehensive package of services and products, which allows it to consistently participate in the largest deals. According to Viniar, the firm is capable of participating in all facets of a deal including capital, advice, hedging, etc., which provides it with a significant advantage and breadth in securing the most notable and complex global deals.
-.- An extremely high percentage of deals for principal investing originate from internal referrals. Goldman's consistently ability to actively invest in and harvest its principal investments stems from the fact that many of the firm's other segments constantly refer deals to the principal investing segment. According to Viniar, Goldman is very careful about the conflicts or perceived conflicts that emerge, and actually has a full time partner monitoring these conflicts.

Goldman's global investments have begun to bear significant fruit and are one of its main near-term growth drivers. Viniar noted that while Japan is now an earnings contributor it used to be a breakeven business for 13 years. He stated that Goldman's leading global footprint vs. its peers will allow it to profit from the fastest growing economies, particularly in the BRIC (Brazil, Russia, India, and China) countries.

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## Exhibit 1. Goldman Sachs Revenues Per Employee Are Greater Than 2X

 Its Closest PeersRevenues'Employee (\$ in Thousands)

| Company Name | 2002 | 2003 | 2004 | 2005 | 2006 | $4 . Y e a r ~ C A G R ~$ |
| :--- | ---: | ---: | ---: | ---: | :---: | :---: |
| Bear Steams | $\$ 485$ | $\$ 569$ | $\$ 622$ | $\$ 626$ | $\$ 680$ | - |
| YoY \% Change | $3.3 \%$ | $17.4 \%$ | $9.2 \%$ | $0.7 \%$ | $8.7 \%$ | $8.8 \%$ |
| Goldman Sachs | $\$ 709$ | $\$ 823$ | $\$ 992$ | $\$ 1.050$ | $\$ 1.406$ | - |
| YoY \% Change | $1.6 \%$ | $16.1 \%$ | $20.5 \%$ | $5.9 \%$ | $33.9 \%$ | $18.7 \%$ |
|  |  |  |  |  |  |  |
| Lehman Brothers | $\$ 499$ | $\$ 534$ | $\$ 591$ | $\$ 638$ | $\$ 678$ | - |
| YoY \% Change | $-3.1 \%$ | $7.1 \%$ | $10.7 \%$ | $8.0 \%$ | $6.2 \%$ | $8.0 \%$ |
| Merrill Lynch | $\$ 360$ | $\$ 414$ | $\$ 435$ | $\$ 476$ | $\$ 617$ | - |
| YoY Change | $-5.2 \%$ | $15.0 \%$ | $5.2 \%$ | $9.4 \%$ | $29.5 \%$ | $14.4 \%$ |
| Morgan Stanley | $\$ 366$ | $\$ 426$ | $\$ 445$ | $\$ 503$ | $\$ 612$ | - |
| YoY\% Change | $-3.1 \%$ | $16.4 \%$ | $4.5 \%$ | $13.0 \%$ | $21.6 \%$ | $13.7 \%$ |
| Average | $-1.3 \%$ | $14.4 \%$ | $10.0 \%$ | $7.4 \%$ | $20.0 \%$ | $12.7 \%$ |

Source: Company repors and CIBC World Market Corp.

From a year ago, Goldman Sachs has grown its revenues per employee by $33.9 \%$, which was the highest YoY growth rate amongst its key US peers, to $\$ 1.4$ million, which is greater than $2 x$ its closest peers. Following was Merrill Lynch with $29.5 \%$ and Morgan Stanley with $21.6 \%$. Overall, Goldman Sachs' 4 year CAGR was $18.7 \%$, which was significantly above those of its key peers.

## Earnings Outlook

We are trimming our well above consensus 1Q07 estimate due to lower expected incentive fees in asset management ( $\$ 0.10-\$ 0.15$ per share by our estimates) and what now looks like our admittedly too high trading revenues (remember very tough 1Q06 comparisons). Our 1Q07 and 2007 estimates are now $\$ 5.60$ (from $\$ 6.00$ ) and $\$ 22.60$ (from $\$ 23.00$ ), respectively.

Exhibit 2. Our Estimates for 1 Q07 and 2007 Are On Average 19\% Above the Consensus Mean
EPS Estimates (CIBC vs. Consensus)

| Source | 1007 | 2007 |
| :--- | ---: | ---: |
| CIBC | $\$ 5.60$ | $\mathbf{\$ 2 2 . 6 0}$ |
| \% diff. from mean | $18.9 \%$ | $18.5 \%$ |
| \% diff. from how | $39.3 \%$ | $37.0 \%$ |
| \% diff. from high | $0 \%$ | $0 \%$ |
|  |  |  |
| Consensus |  |  |
| Mean | $\$ 4.71$ | $\$ 19.07$ |
| Low | $\$ 4.02$ | $\$ 16.50$ |
| High | $\$ 5.60$ | $\$ 22.60$ |

Source: Company reports and CIBC World Markets Carp.

Our 1Q07 estimate of $\$ 5.60$ is the highest estimate on the Street, $19 \%$ above the mean and $39 \%$ above the lowest estimate. Our 2007 estimate of $\$ 22.60$ is also the highest estimate on the Street, $19 \%$ above the mean and $37 \%$ above the lowest estimate.

## Price Target Calculation

Our price target on Goldman Sachs is $\$ 250$ based upon a 2.7X multiple of our projected 12-month forward book value estimate of about $\$ 94$ per share. Since going public in 1999, Goldman has traded in a range of 2.0 X to 3.6 X book value; therefore, we believe our 2.7X multiple is reasonable. Admittedly, since 2002 Goldman has traded more towards the low end of the range along with its brokerage group peers; however, if we are correct on our thesis that 2006 will be a barnburner year within global capital markets, we believe the group at large will experience multiple expansion. For the past three years, Goldman has grown earnings by over $25 \%$ per annum despite a flattening yield curve and unfavorable equity markets. We believe the wind is truly at Goldman's back this year and that 2006 will mark the company's fourth year of $25 \%$ plus earnings per share growth.

## Key Risks to Price Target

Market Risk: Brokerage earnings are highly correlated to strength/weakness in the overall capital markets.

Credit Risk: Brokerage earnings may be vulnerable to losses from their credit exposure related to trading, lending, and other business activities.

Liquidity Risk: An extended interruption in liquidity will have a materially adverse impact on earnings.

Litigation Risk: Legal proceedings could adversely affect brokerage earnings, capital levels, and potentially impact credit ratings.

Regulatory Risk: Most brokerage businesses are highly regulated and could be materially impacted by regulatory and/or legislative initiatives globally.
Exhibit 3. Income Statement


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Case 1:10-cv-03461-PAC

Highlights from Meeting with Goldman Sachs CFO David Viniar - January 29, 2007

## Our EPS estimates are shown below:

|  | 1 Qtr. | 2 Qtr. | 3 Qtr. | 4 Qtr. | Yearly |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 Current | \$5.08A | \$4.78A | \$3.26A | \$6.59A | \$19.69A |
| 2007 Prior | \$6.00E | \$5.91E | \$4.86E | \$6.23E | \$23.00E |
| 2007 Current | \$5.60E | \$5.76E | \$5.00E | \$6.25E | \$22.60E |
| 2008 Current | .- | .- | .- | - | \$26.25E |

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Highlights from Meeting with Goldman Sachs CFO David VIniar - January 29, 2007

# Important Disciosure Footnotes for Companies Mentioned in this Report that Are Covered by CIBC World Markets: 

Stock Prices as of 01/29/2007:
Bear Stearns Companies (3a, 3b) (BSC-NYSE, \$162.05, Sector Outperformer)
Lehman Brothers Holdings Inc. (3a, 3b, 5a) (LEH-NYSE, $\$ 80.68$, Sector Outperformer)
Merrill Lynch \& Co. (3a, 3b) (MER-NYSE, \$92.39, Sector Performer)
Morgan Stanley (3a, 3b) (MS-NYSE, \$81.12, Sector Outperformer)
UBS AG (3a, 3b) (UBS-NYSE, \$61.64, Sector Outperformer)

## Companies Mentioned in this Report that Are Not Covered by CIBC World Markets:

Stock Prices as of 01/29/2007:
Bank of China (3988-HK, [HKD]3.90, Not Rated)

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4c CIBC World Markets Inc. has received compensation for non-investment banking, non-securities-related services from this company in the past 12 months.
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The equity securities of this company are restricted voting shares.
The equity securities of this company are subordinate voting shares.
The equity securities of this company are non-voting shares.
The equity securities of this company are limited voting shares.

## CIBC World Markets Price Chart



HISTORICAL PERFORMANCE OF CIBC WORLD MARKETS' RECOMMENDATIONS FOR GOLDMAN SACHS GROUP, INC. (GS)

| Date | Change Type | Closing Price | Rating | Price Target | Coverage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 02/08/2005 | $\Delta \square \square$ | 111.55 | SO | 126.00 | Ken Worthington, CFA |
| 03/17/2005 | A | 110.04 | SO | 131.00 | Ken Worthington, CFA |
| 09/20/2005 | A | 118.05 | SO | 135.00 | Ken Worthington, CFA |
| 11/22/2005 | A | 132.60 | SO | 151.00 | Ken Worthington, CFA |
| 01/10/2006 | $\Delta \cdot \square$ | 132.03 | NR | None | CIBC World Markets Corp. |
| 03/01/2006 | $\Delta$ - $\square$ | 143.15 | SO | 190.00 | Meredith Whitney |
| 05/09/2006 | $\Delta$ | 165.75 | SO | 205.00 | Meredith Whitney |
| 11/20/2006 | A | 197.45 | SO | 250.00 | Meredith Whitney |

CIBC
World Markets

Highlights from Meeting with Goldman Sachs CFO David Viniar - January 29, 2007

## CIBC World Markets' Stock Rating System

| Abbreviation | Rating | Description |
| :--- | :--- | :--- |
| Stock Ratings |  |  |
| SO | Sector Outperformer | Stock is expected to outperform the sector during the next 12-18 months. |
| SP | Sector Performer | Stock is expected to perform in line with the sector during the next $12-18$ months. |
| SU | Sector Underperformer | Stock is expected to underperform the sector during the next $12-18$ months. |
| NR | Not Rated | CIBC World Markets does not maintain an investment recommendation on the stock. |
| R | Restricted | CIBC World Markets is restricted*** from rating the stock. |
| Sector Weightings** |  |  |
| O | Sector is expected to outperform the broader market averages. |  |
| M | Market Weight | Sector is expected to equal the performance of the broader market averages. |
| U | Snderweight | Sector is expected to underperform the broader market averages. |
| NA | Sector rating is not applicable. |  |

**Broader market averages refer to the S\&P 500 in the U.S. and the S\&P/TSX Composite in Canada.
"Speculative" indicates that an investment in this security involves a high amount of risk due to volatility and/or liquidity issues.
***Restricted due to a potential conflict of interest.

## Ratings Distribution*: CIBC World Markets' Coverage Universe

| (as of 29 Jan 2007) | Count | Percent | Inv. Banking Relationships | Count | Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sector Outperformer (Buy) | 328 | 38.8\% | Sector Outperformer (Buy) | 174 | 53.0\% |
| Sector Performer (Hold/Neutral) | 415 | 49.1\% | Sector Performer (Hold/Neutral) | 214 | 51.6\% |
| Sector Underperformer (Sell) | 72 | 8.5\% | Sector Underperformer (Sell) | 35 | 48.6\% |
| Restricted | 18 | 2.1\% | Restricted | 18 | 100.0\% |
| Ratings Distribution: Brokers Coverage Universe |  |  |  |  |  |
| (as of 29 Jan 2007) | Count | Percent | Inv. Banking Relationships | Count | Percent |
| Sector Outperformer (Buy) | 5 | 83.3\% | Sector Outperformer (Buy) | 1 | 20.0\% |
| Sector Performer (Hold/Neutral) | 1 | 16.7\% | Sector Performer (Hold/Neutral) | 0 | 0.0\% |
| Sector Underperformer (Sell) | 0 | 0.0\% | Sector Underperformer (Sell) | 0 | 0.0\% |
| Restricted | 0 | 0.0\% | Restricted | 0 | 0.0\% |

Brokers Sector includes the following tickers: BSC, GS, LEH, MER, MS, UBS.
*Although the investment recommendations within the three-tiered, relative stock rating system utilized by CIBC World Markets do not correlate to buy, hold and sell recommendations, for the purposes of complying with NYSE and NASD rules, CIBC World Markets has assigned buy ratings to securities rated Sector Outperformer, hold ratings to securities rated Sector Performer, and sell ratings to securities rated Sector Underperformer without taking into consideration the analyst's sector weighting.

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## 

GS comfortable with risk; sees less potential for relative revenue decline
The Co. has managed credit exposures carefully, so exposure is largely that of a credit trading revenue fall-off. GS' economically sensitive business mix has historically led to relatively steep declines in earnings from peak-to-trough, but managernent seems more confident than in the past that GS can out-earn peers throughout the cycle.

Focus is global, especially Emerging Markets
Unique positioning in China just beglnning to gain traction and expected to drive meaningful revenue near-term; Russia franchise build on-track; India, Brazil seen as longer-term opportunities. Other Int'l opportunities seen in Middle East (flush with liquidity, and GS has considerable brand power) and Japan (activity picking up).

Franchise solid across-the-board; expansion continues GS franctise remains the market leader with lop markel share in key businesses. Mgrnt. believes GS can still improve positioning in markets like equity derivatives, structured products via better "connectivity" with the IE. Management anticipates most future growth will come organically.

|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (US\$) | 2005A | 2006A | 2007E | 2008E | 2009E |
| EFS | 11.21 | 19.69 | -7.98 | 18.28 | 20.35 |
| GAAP EPS | 11.21 | 19.69 | -7.98 | 18.28 | 20.39 |
| EPS Change (YOY) | 25.7\% | 756\% | -6.7\% | 1.7\% | 11.5\% |
| Consensus ESS (First Call: 08-mar-2007) |  |  | ${ }^{\text {'9. }} 9.25$ | 20.52 | NA |
| Dividend Rata | 1,30 | 1.30 | 1.40 | 1.40 | 1,45 |
| Voluation (Nov) |  |  |  |  |  |
|  | 2005A | 2006A | 2007E | 2008E | 2009E |
| PIE | 18.9x | ${ }^{1} 0.3 \mathrm{x}$ | 11.3 x | 11.1x | 9.9x |
| GAPP PE | 18.1* | :0.3x | 11.3x | 11.1x | $9.9 x$ |
| Dividend Yield | 0.5\% | 0.6\% | 0.7\% | 0.7\% | 0. $7 \%$ |


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|  |  |
| :---: | :---: |
| Pace | US\$202.60 |
| Investment Coinign | B-2-7 |
| Votatility Risk | $\mathrm{M}=$ OUlU 4 |
| 52-Week Range | US\$136.79-222.75 |
| Mrht $\mathrm{Va}_{\text {a }} /$ Shares Oul (mn) | US\$69.103/439.8 |
| ML Symbal I Exchange | CS/NYS |
| Blocmberg! Reuters | GSUS/GSN |
| ROE (2007E) | 20.1\% |
| Leverage (2006A) | $85.8 \%$ |
| Est 5-V1 EPS / DPS Growh | 10.0\%/0\% |



Quarterly Earnings Estimates

|  | 2906 | 2007 |
| :--- | :--- | :--- |
| Q1 | 5.08 A | 5.07 E |
| O2 | 4.78 A | 4.39 E |
| Q3 | 3.26 A | 3.51 E |
| O4 | 6.59 A | 5.01 E |

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Goldman Sachs Group
13 March 2¢07

## iQprofile" Goldman Sachs Group

| Incorse Statement Data (Noy) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (US\$ Millions) | 2005A | 2006A | 20075 | 2008 E | 2009E |
| Nel Revenues | 2¢,238 | 37.681 | 37,2i2 | 37,815 | 40;597 |
| Compensation 2 Benefils | (11.758) | ( 5.5820 ) | :16.353) | [16,714; | (17.863); |
| \% or Net Revenue | 46.6 | 42.0 | 43.9 | 44.2 | 44.6 |
| Non-Compensation Expenses | [4,821) | $(6,879)$ | :7,405) | 17,722 | (8.054) |
| Net lncone to Ord nary Sharehoders | 5,995 | 9,820 | 8,736 | 8.701 | 9 9564 |
| Adjusted Neal Income (Operating) | 5,99] | 9.820 | 8.736 | 8,70 ? | 9,554 |
| Balance Sheet Data (Nov) |  |  |  |  |  |
| (US\$ Millions) | 2005A | 2006A | 2007E | 2008E | 2009 |
| Total Assels | 7CE,804 | 838.201 | 955,937 | 1,399,328 | 1:209.261 |
| Total Sharehodiders' Equiry | 88,002 | 35,786 | 51, ${ }^{\text {98 }}$ | 15,550 | 51,198 |
| Nel Assets | 59,4,447 | 631.872 | NA | NA | NA |
| Targible Shareholdeis' Equily | Na | NA | NA | NA | NA. |
| EVPS [Statec Equityi | 57.02 | 72.62 | 83.93 | 96.22 | 109.16 |
| \% growth | 12.3 | 27.4 | 15.6 | 14.6 | 13.5 |
| Trading (Nov) |  |  |  |  |  |
| (US\$ Millions) | 20,15A | 2006A | 2007 E | 2008 E | 2009E |
| Nel ${ }^{\text {-rading Rev (Princ Trans }+ \text { Net In:) }}$ | 12,935 | 19,830 | 21,362 | 21,580 | 23.548 |
| \% ${ }^{2}$ growth | 18.8 | 53.3 | 7.7 | 1.0 | Э. 1 |
| ROA (Net Trad Revtave Bat Sht Assis) | 2.07\% | 2.47\% | 2.55\% | 2.13\% | 2.04\% |
| Valus-al-Risk | 70 | 101 | NA. | NA | NA |
| YaR as a \% cf Total Equily | 0.25\% | 0.28\% | NA | NA | NA |
| Investinent Eanking (Now) |  |  |  |  |  |
| [US\$ Millions) | 2005A | 2006A | 2007E | 2008E | 2003E |
| Financial Advisory Revemues | 1,905 | 2.580 | 2,865 | 1,553 | 1,608 |
| Equity Undervriting Revenues | 704 | 1,365 | 1.320 | 1.826 | 1,517 |
| Debt Underwritrg Revenues | 1,062 | 1,684 | 1,825 | 2,050 | 2,193 |
| Total mivestmert Banking Revenue | 2,671 | 5,623 | 6,0¢0 | 5:288 | 5:718 |
| \% growh | ع. 0 | 53.3 | 6.8 | -9.7 | 5.3 |
| Performance Metrics (Nov) |  |  |  |  |  |
| (US\$ Millions) | 2005A | 2006A | 2007 E | 2008 E | 2009E |
| ROF (Siaies Fquity) | 22.6\% | 30.8\% | 20.1\% | 46.3\% | 19.7\% |
| Operating Margin | $34.3 \%$ | 39.8\% | 36.2\% | 35.4\% | 36.2\% |
| Pre-Tax Profr Margin | 34.3\% | 39.8\% | 36.2\%, | 35.4\% | 36.2\% |
| Nel Precil Margin | 23.8\% | 26.1\% | 23.5\% | 2.3.3\% | 23.5\% |
| Comp ExpensefRevense | 46.6\% | 42.0\% | 43.9\% | 44.2\% | 44.0\% |
| Non-Compe Expense / Revenue | 19.1\% | 18.3\% | 19.8\% | 20.4\% | 19.8\% |
| Net Revenue Grouth | 20.5\% | 49.3\% | -1.2\% | 1.5\% | 7.4\% |
| Operating Expense Growth | 19.2\% | 36.9\% | 4.7\% | 2.3\% | 6.1\% |
| Operaling Income / Average Assets | 4.0 \% | 4.7\% | 4.1\% | 3.7\% | 3.5\% |
| Trading-Relaled Revenue / Met Revenue | 51.3\% | 52.6\% | 57.4\% | 57.1\% | 59.0\% |
| Asset Management \& Fee Rep/Net Rev | 12.6\% | 11.4\% | 12.2\% | 14.2\% | 14.0\% |
| Total Employees ( Actival ; | 23,623 | 26,467 | NA | NA | va |



## 8 Herrill byate <br> 13 March 2C07

Sub-prime: gooc busissess over cycle though relatively small for GS
uiding small origination effort

Goldman Sachs Group

## New Management Team

## The new management team

It has now been about 9 months since the new senior management team coalesced around Chairman and CEO Lloyd Blankfein following the departure of Hank Paulson to become US Secretary of the Treasury. with Jon Winkelried and Gary Cohn, named as Presidents and COO's. Winkelried, who spent much of his career managing aspects of Goldman's FICC businesses before moving into the Investment Bank, spends most of his time now with the IB and the Private Equityf Merchank banking businesses, while Cohn oversees Sales \& Trading and Asset Management. While it is clear that all three of the seniormost members of the management team have their roots primarily in the markets businesses, Winkelried's "embeddedness" in the IB, along with Goldman's collaborative culture of low silo barriers, ensures that the units continue to work together as seamlessly as anywhere in the industry, and probably more so.

## Consistent record of innovation

The firm has been at the forefront of recognizing industry change and navigating through it. Examples include
${ }^{3 i}$ the successful restructuring of the Equities business in the race of declining commissions;
a the decision to maintain strength in Commodities over many years, and then to build on it in a timely way ahead of the recent boom; and
5. the anticipation of credit disintermediation, employing "disuptive technology" to create a large business in an area that had largely been the purview of the tanks.

Goldman was not alone in each of these moves, but we 1hink it's fair to say it was an early mover in each and the orly firm in our coverage to get all of them about right (among other things).

## Opportunity seen in sub-prime assets

Mortgages generally are a much smalier part of GS' business than at some other firms such as Lehman and Bear Stearns, but are nonetheless an important asset class in which the firm actively participates. Sub prime is a part of the mortgage business which, while experiencing a meaningful downtum in part because of a 2006 collapse in lending standards, is nonetheless quite attractive over the full cycle.

Interestingly. while GS has previously expressed concern over potential reputation issues in this arena, Viniar noted that the firm is cautiously building a smatl origination effort. While exposure is not at this point meaningful for GS , the fact that the firm is dipping a toe in sends a positive signal about recovery potential, in our view, though it is only a small effort and Viniar (like others) believes the mess could worsen near-term.

We would not rule out a small acquisition at a Ifro-sale price. GS' warehouse and other exposures in and Alt-A are very small and manageable, and while the firm is certainly observing distress in the sector, assets are still trading, and pre-06 vintages are in good shape. Warehouse exposures are being treated like securities lending: careful and timely risk management via mark-to-market. margin calls, position close-outs, etc. The firm also believes it will have distressed-mortgage opportunities ahead.

18 Merrill Lyach<br>13 March 2C07<br>Us keeas "dry powder"' to exploit Farket disiccation

Carefot on Gredit: exposure mainty to a fow onsiness "eventere der ite

Es expects to out-earn rivals across the r.ycle... and at the bothom

Goldman Sachs Grolp

Risk Management: comfortable with marker risk
Given the degree to which many markets have been priced fo: perfection, the question arose as to when, over the past few years, has the firm taken risk levels down materially. Viriar said that, in the post-2002 periud, it really undy liapper:ed in 3Q06, as the firm saw fewer opportunities in a period of heightened uncertainty. This was the collective resull of many individual dec:sions around the firin, rather than a top-down choice. The general philosophy is to increase 'dy powder" as markets becorne chuppier!less certain so as to have the ability to take advantage of vatuation opportunities, but again this is eulturai, rather than by edict. (Wic shosild note that this was shorly before the recent pickup in market volatility). The firm has proven isself, we think exceptionally nimble in navigatirg the financial cross-currents and being positicned not just to deal with risk but to proit trom managing its own, and its clients risks.

In order to mitigate "lorg-tail". multiple-standard-deviation risks, the firm spends a considerable amount of "insurance" money on protective positions such as deep-out-or-the-money purs. CDS indices, elc.. even though to date, these have moslly been useless. The firm also keeps enonmous amounts of liquid, unencumbered assets. to ease its passage through any periods of illiquidity that could arise.

While credit $r$ sk as a percentage of the total badance sheet, or total VaR, has grova, the firm is still more confortable with market risk than credit risk, so the credit exposures are managed exceptionally carefully. Therefore, the company tecls that it is more exposed to the risk of a simple dechne in revenue from credit trading than to default risk. While it accep:s that bridge commilments are teday a key part of the "franchise" M\&A business, Goldrnan betieves that mitigation of these risks is best achieved through rapid sale of the exposure, and approaches every transaction in this way, even though credil derivatives may be used ta an extent. Since it views lenrling r.n a stanrfoalone basis as a relatively low-return business, the emphasis is definitely on quick turnover. However, knowing that some deals will get "hung" on the balance steet. Goldman is stringent on its crecit analysis and on its insistence on the qualily of the companies it lends to.

Given its business mix and willingness to be somewhat more aggressive in risklaking than its peers, we have generally thought of GS as likely to oul-earn its peer group in ROE terms at the top of the cycle and over the full cycle: but tris implies the possibility ot a greater peak-io-trough decline in ROE than the peri grocp. Winkelried believes "strongly" that this is not the case today (though we'd point out it has been in the past), and that the compary can out-eam peers at each point in the cycle. The implication is that between better risk managereent, the capital imanagement exercise of the past couple of years that has taken out excess caputal, and the richer business mix, Gs has achieved a consistently higher-earning franchise; Winkelried believes that the gap between Goldman and its competitors has widenod "dramatically" since the 2000-2002 slump. Other elements include the highly diversified ousiness mix, and the build-oul of what are expected to be counter-cyclical businesses such as distressed assets and restructuring. Clearly only time will tell, but tre fact that a lop-management executive would state this so confidently is at least worth noting. Alsn, the maleriaily higher Pi日 ratio that GS commands in the stock market would indic:ate at least in part that the market believes this is the case.

## 初 <br> fos Merill Lynth

13 March 2607

|  | 2004 | 2005 | 20.05 |
| :---: | :---: | :---: | :---: |
| Net Reverues |  |  |  |
| Ametits | 12.312 | 14,859 | 20.361 |
| EMEA | 5,107 | 3, 153 | 9,354 |
| А | 3,53; | 4.506 | 7.955 |
| Fotal Net |  |  |  |
| Revenuts | 20,561 | 25,258 | 37,665 |
| Pretax earmings |  |  |  |
| Americas | 3.575 | 4.87 | 7.515 |
| EMEA. | 1,212 | 1,45\% | 3.075 |
| Asia | 1,2772 | 1,876 | 4,015 |
| Corporiale | (184) | :37! | [45] |
| Total pre-tax eamings | 6.875 | 8,273 | 14.56 ${ }^{\text {J }}$ |

PE gair contrijution to global revenuc drives naticeably aigher maroin

Brazil, Russia, andia and Ch:rea will be focus of GS int't investment.

Goldman \$achs Group

## Capital management

Viniar expects capital management to proceed as it has over the past couple of years: striking a balance between producing ample book value growth, and keeping capitall levels at a tevel upon which an acceptable ROF coll be produced without taking excessive risk. This of coirse implies that fairly robust buynacxs can be expected if the environment remains anything like it has been, helping GS produce ROEs well in excess af $20 \%$.

## Intermational business increasingly important

©S continues to view growth as likely to be faster outside the Jis, and thus that its non-US business will contin ae to grow as a share of the total; tris remains a principal building block of the firm's srategy. In 2006, Americas pretax earnings were $52 \%$ of total. down from nearly $50 \%$ in 2004; ne1 revenues were $54 \%$ Americas, vs. $59 \% 2$ years eardier. Over this period, the most significant contributur to gruwth of revenues and eamimes, regionally, Iad been Asia, whose revenue contribution rose from $17 \%$ to $21 \%$ and whose pretax aarnings contribution rose from $25 \%$ to $28 \%$. This incicates that mot only is Asia's margin considerably higher than the others, but that it is improving

Chati 2: Prctax margin by region



This said, it's importanl to note that over the past scveral years, Private Equity gains (notably Sumitomo over the whole period, ICBC and Accordia last year) have contributed heavily to Asia earnings, and we believe the marg $n$ associated with these revenues is higher than the average. It the Pt contribution to Asian (and overall global) revenue declines mater:ally, it could have a noticeable margin itrpact, we belituve.

Emerging mkts, expansion continues: BRIC and Beyond Still, with the company just begirning to excloit its particularly adventageous China pesitioning (omly UBS inas been granted comparable licensing/control over its local-markets China business), prospects in thal country look exceptional. Geldman is working on its tirst domeslic deal, for Ping An insuronce (one of its own former Private Equity portiolia companies). Cansiderable privalization activity still lies almead, and Chinese companies are increasingly looking beyond their borders at mergers and other opoortunities. Meanwhile, the Chinese securities authority (CSRC) is ncw requiring that companies seeking a foreign listing (i.e. Hong Kong) alsu have a domestic listing. G ven the current state of licensing, only GS and UBS are posilioned to handle botn transactions for these Crinese ccrporates. The firm believes that China will be a meaningful revenue market in the very near future, across numerous key product lines - Equity underwiting, Private Equity. and others. Natw thstaridirg the recent bout of s:ock-market volatility, tre market has perfermed well, and with a significant buildup of liquid wealth in China, pecple are interested in becoming investors. Not too mamy

Midgle East and Jaman present significant opportunities, as weil

G5 generates attractive econdrfics by distributing $3^{-4}$ party furids.

Goldman Sachs Gro.p
years agn, most China lalk from fnancial companies was on the nrder of "big long-ierm payoff but many years away', so this is a decidedly different take. Indeed, though some opportunities may omerge faster than others, there are no important regions at this point that are not prefitable for Goldman, and the development of global capital rrarkets has laeen sin rapid in recent years that revenue opportunities are emerging sooner than might have been expacted. After the Europe buildout was begun in the 80's, took 15 years for London to become profitable: China reached profitability muth faster.

In Russia, the firm is cautious because of potential reptational issues and concerns over properly rights, so business selection issues are crucial; bul given the growing importarıce of the market and its companies, and with the expectation that some of the world's largest deals will be there in the near future, GS is proceeding with its franchise build. Laige Russian companies are increasingly outward-focused, trylng to establish global footholds in industries as diverse as mining, forest products, steel, and automotive. In additon to serving Russian clients, Goldman needs to understand the dymamics to the extent that they a.so will affect the firm's other clients globally. As with China, GS anticipales significanl revenue to emerge from this narkel in relatively shorl order.

India and Brazil opportutaity more long-term
India's fast-growing economy is also one where there is considerable IS and markets opportumity, although it is more rompetitive than China. and Goldmen in particular does not have the degree of early-mover advantage it has in China Nonetheless, GS contimues to grow rts investmert in the market and as has been previously reported, dissolved a longstanding joint venture in order to have full conirol of its india business. The view on this market is that it will take sommewhat longer to develop into a meaningful contributor.

Brazil is a market where Goldnan was unable to make an acquisition that it sought at what it felt was the righ1 price (the property. Banco Pactual, ultimately went to UBS), but GS has the ligenses it needs mow and will proceed on its nom. As vith India, this is seen as a relatively longer-term opportunity.

The Middle East is flush with liquidity that is seeking global opportunities, and the Goldman brand franchise is very strong there. Goldman's initial strategy in many regions has often been to joint-venture, and in February, it signed a Memo of Understanding to form a venture with National Commercial Bank of Saudi Arabia, in addition to having established new offices ir the Emirates last year.

Goldman is continuing to see considerable activity in Japan, across a number of procuct sets: equities, debt underwiting, and a relatively new phemomenon for the market, hastile takeovers.

Private Equity market strong
Overall conditions in the Private equity market remain very strong, Winkelried observed, with no recent changes in the pace of investment. He continues to see an upswing though in the number of opportunities, and the ability to execute on them, outside the US. Demand to invest in funds remains reasonably strong. One new dynamic is the degree to twhich Goldman is involved in raising funds for private pooks (in contrast to IPOs of Private Equity general partners or of specific funds, an activily in which GS has also participaled recenlly). Given the reach of its ultra-high-net-worth private client group. GS has been able to raise meaningful amounts of capilal for some of these firms with longer-than-normal lockups, which of course the sponsors find very appealing. What is particularly notable is that
... while raising its own new mega-fund

Fund focus has turned to big-tiokel transactions, allowing GS to make smaller on-batance-shect investments
the perceived value-added of GS' efforts, and of its imprimatur, is significant enough that Goldman appears to be able, in some cases, to share significantly in the GP's fee structure on the funds raised - i.e., it can receive what we believe is a substantial portion of both the management fee and the carried interest.

Meanutile, GS is in the process of raising its latest general fund, which according to press reports is in the range of $\$ 19 \mathrm{bn}$, nearly double its original targel (and a number which we believe is substantially correct). We estimate about $30 \%$ of this will be subscribed internally, by $G S$ for its own account and by employees; and that the remainder will be taken up by a combination of high-net-worth and institutional clients. Winkelried indicated, responding to a question about the degree to which opportunities still exist given how much private equity money is now out chasing deals, that there is already a backlog of ideas for the new fund that could use about $1 / 2$ of its capital.

With the firm's funds nosv very large, their focus is on very big-tirket transactions: transactions under $\$ 100 \mathrm{mn}$ are generally not on their radar screen. This creates an opportunity for the firm to invest its own assets in $\$ 25-100$ million transactions, and given the lB's expanded scope into more middle-market clientele, there may be considerable opportunity here as well. Current policy requires that any deal of $\$ 180$ million + be shown to the new fund, $\mathcal{G S} \mathrm{VI}$; the range of transaction targets for the firm's owm account may therefore be expanded to $\$ 25-180$ million.

Infrastruclure, as the firm has alluded to in every meeting with us over the past year, is quickly becoming a major private-equity focus for Goldman (and others) because of the scale of the opportunity, as public sector entities look to free up capital and long-term investors seek opportunities to match investments with their kong-tail liabilities like pensions.

The firm has had an important Real Estate private equity effort for many years, but Winkelried sees increasing convergence between this area and corporate Private Equily. The resources in place are being reassessed, and it appears that, In conjunction with the IB, a financing capability akin to corporate Leveraged Finance will be put in place.

Overall, GS has produced more PE-related revenue (fund management, carried interests, gains, and related IB revenues) than peers. We have attempted to quantify this by identifying revenue from all the above though admittedly we may have missed some elements. Even so, the analysis indicates significantly sironger PE-related revenues as a percentage of Net Revenues, when compared to the peer group (see Chart 3).

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Cinart 3: Percentage of Private Equity Revenue Contribution to Net Revenses



## Confict Aanagement skill maximizes franchise value

As always. discussion of Private Equity gives rise to concerns over conflicts, and there are always plenty of complaints that Goldman walks a very fine line between ts cliens' interests and its owr. Sut the consistency with which the frm has avo ded crossing the line and damacing its reputation is such that it must be doing something right. The conflict menagentent process is clearly taken exlitemely sericusly at the firm, smoe it is viewed as mot just a by-produr: bul a key pillar of the tirm's franchise business. Thought the process is highly structured and rigorous, $20 \%$ of the conflicts end up at the top of the "irm.

Soldmar manages contlicts, rather than simply avoiding them, in order to maximize the value of its frarchise, and as an institution, it sees far more principal investing opportunities as a resul? of that franchise than it would without it. The ICBC investment in China is a great example.

## Market's risk appenite remains healthy

We have recently been concerred aluout a global 'attitude adjusthertt' that way be developing with respect to risk tolerance ard risk pricing. Our meeting was held just prior to the recent market turmoil, but at that time. al least, $0 S$ was not seeing any meaningful shift, with the fnarcing markete robust and liquid; and indeed, recerlly. Texas Pacific and TXU were able, for example, to line up considerable financing for their deal, inclucing substantial equity bridges" from Wall St. Still, Winkelried is clearly aware that one of the most significant potertial negative changes would be if this liquidity dried up. Ard of course, to the exient that Wall Street firms are increasingly providing bridges, the risk of being caught with "hung deals". if liquidity conlracts, is rising.

Where does the firm see issucs that could result in a cyclical break? Winkeleiced expressed some concern that the housing finance woes could bleed into other areas of the rnarkets. such as Alt-A (indeed there is evidence that this is happering): pritio mortgages, otver consumer finance, andior commerc al real estate. He noted, although the rousing-finance issues seem quite contained now, and investor liquidity is massive, that events and perceptions cal :um quickly. If a higily visible bruyout were to fall apart due to an inability to atiange firmancing, Wirikelried observed this might trigger a re-evaluation of credit spreads and deal act vity in the M\&A and equity markets. Finally, the markets have put geopol tical risk concerns on the back burner for the past few years, but they are clearly still there.

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## Franchise competitive position solid

As afways, Goldman belleves strongly that. hotwithstanding opinions to the contrary, its "franchise" customer businesses, such as Investment Bankirg!' Advisory, are highly intercorınected with its arincipal investing activities, such as Private Equity. As has long been the case, the company remained \#1 in M\&A globaliy lest ycar, and management believes this is important on many levels. This saic, it's clear that numerous other players covel this stending, and Gnoman is nothing if not rational. The implication is that if one or anather firm seels i $\ddagger$ is worth "buying" league table position via uneconomic devices such as writing free fairress opinions, so be it, ard ad́visory fess are generally under some pressure. as has been the case for some time. In any one quarter, a combination of events, such as $G S$ finding itself "confl cted out" of large deals, plus unusual competit veness va ancillary assignments such as fairness opirions and financing, could certainly take GS out of the top position. Also. the gecgraphital mix of artiv ly can affect the firm's relative position in any one period, netwitnstanding that $G S$ seems to lead in all major reg̣ions during most periocs. Still, based on first quarter IB results, Winkelried seemed very pleased with the firm's position, and unmembernerd that GS wruld fall beelcw its tratiticonal leading position in gererating actual M\&A fee dollars. And he did not seem to feel that any one fir'ワ posed an immediate threst to ES' $\ddagger 1$ status in M\&A.

Beyond M\&A the firm is working on continuing to b uild better product capability in markets areas like derivatives, believing for example that Equity derivatives should be twice the size for GS that in aclually is; ard Straclured Products. I: is also continuing to improve "connectivity" between these product areas ard the IB, even though 35 is arguably better at this alrcady thar most of its competitors.

GSAM momentum continues
GSAM has posted industry-leacing total and arganic growth vales of total Assets under Management for several ycars (oryanic growth is definod as that corring from net new inflows of customer assets, ret cf anly growlh via market returns).

Char 4: Growth of Asscts under Management..


Chart 5: Organc Growth Rate of Equity Mutual Fund Assets.... .... .......


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Focus arr alternatwe products has helped GSAM creata in moderr asse: managenent brand

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iv effective distribution and global product and market reach.
In terms of alternatives, $G 5$ is very large where others aren"t; an example is quant products, rather than lorigishort or creditorienied funds (where his cornment: seemed to imply Goldman sees overcapacity and commoditizatıon in the market) He also noted the firm's large presence in the Fund-of-Funds marketplace, stelatring from the achuisition in ihe 908 of Commedity Curb., and now encompassing externally-managed Hedge, Private Equity, and more fraditional tong-only products.

He also attritutes the rapid growh in recent years to the fact that, in mumerous key product areas, the firm has put together good, saleable track records. yet is still quile small relative to key cornpetitors: in Fixed lticome. for example, GSAM is $1 / 3$ the size of Blackrock, and just $1 / 4$ the size of Pimco. In Quantitative Ecu.ty, GSAM is considerably smałler than BGI (Barclays), and most of its active-equity prociucts are still smaller than ma or competiogs. This said, it should be borne $n$ mird that GSAM, in aggregate is now of world-class size, with nearly $\$ 700$ billion in AUM as of $11 / 06$, so it's not quite the fast-growing upstart it once was.

GSAM has also done portolic-team lift-outs to bring in fund-mianagement talent and customer assets.

Distribution strengti across key glabal markets is also one of the hallmarks Kraus mentimed as key. The firm has invested heavily over the past decade to build distribution in Europe, Asia, and Latin, America in addition to North Amerios, acruss customer typos: institutional, high-reti-werth, and third-party. The altraHNW channel in particular is one in which Goldman has a differentiated franchise and which has been particularly active in distribulion of high-margin alternative, fund-of-tunds, and structured products. Soldman is also generally recognized as working the linkages ameng its various businesses more seamlessly to "blanket" clients then ariy other frrm on Wall Street, and wee think this very much applies with respect to GSAM Private Client and its co-operation with lnvestment Banking. When IB is present a: a wealth-creating event for a corporate management team, the bankers have done, in our view, a gond job making sure that GSAM is there to pitch its wealth management capabilities.

Inlernationaliy: GSAM has a significan: position across a number of segmerts in Japan, and has started a business in China, where it is licensed as a Qualified Foreign Investor ( QFII ) and benefits strongly, we believe, from Goldman's highly acivantaged position in lems of its brokerage and banking licenses. G5AM began to focus on developing a presence in China around 3-4 years ago. after many yoars of fi-m franchise-building efforts and as t became clear the opportunity was beginning to ripen. The QFII license meant that a research capability could be

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Oostive overating leverage emerging, but agyressive investment continues to hald sack margins, we think.

Relative performance of tos:itut'onal uruducts is haid to Fratk
developed on the ground in Shanghai, that investors condd be solicited outside China for a C-ina product, and that a track record in Crina equities could begin to be developed. In the intervening perind. that track record has, fortunately: cevcloped well. with a sol:d mid-cap core equity product with 10 percentage points of alphe (vs an index that is admittedly not very efficient). Eventually, it may become possible to sell the China products within the market, to domestic buyers.

GSAM has also assembled a portfolio management tean in Irdia, and expects bo:h China and India to become very meariinglul over time. As with other country-focused leams, they also support the broader Global and Ernergirg Markets businesses.

From an overall profitability point of view, Kraus noted that, ater 12 years of stearly tedinvestrmen, GSAM is now starting ti: seen sume of the benefits of its scale in positive operating leverage. This said, it's clear thal a great deal of investment in growh is still taking place in Eiriercing Markets. and that these markets are thus unlikely to hecome "cash cows" for a long time to come. The overall margin level for the combined "Asset Management and Securities Services' busir ess segment has been $35 \%$-plus in recent years ( $38 \%$ in 2006) but the segment definition is too broad to de really useful in assessing GSAM: Securities Services (fundamentally, prime brokerage \& clearing) is quite a large business for GS and very different from GSAM. We believe ©SAN at this point preduces an industry-like margin (around $30 \%$ ), or perhaps still slightly below due tos signficant reinvestment. Because he exnects rontinued rapid growth of the firm's other businesses, Kraus does not anticipate that Asset Management revenues will grow quickly as a percent of GS' total soing forward. Businesses such as FICC risk meaningful amounts of the firm's capital, do well over time and thus generate more capital. winch they wi!! Iargely re-invest if opportunities permıt, perpetuating t'peir growth in a way that's different from less capitalintensive ous ricsses such as GSAM.

Rapid growth as we have seen at GSAM is generally also at least in good measure a response to strumy $\quad$ erformance. This said, $G S$ is primarily an institutional and high-ret-worth player, with only $20 \%$ of AUM in US mutual furids: whase performance can be easily tracked ( $10 \%$ of GS fixer-income AUM, and $15 \%$ of its equity AUM are in US mutuals). Thus it is hard to gauge how performance is trackirg ald wherl à sigrificant reversal in relative performance may have occurred. So, though the long-form growth record should make one cautious about betting against GSAM's ability to continue growing quickly, :he risk of a slowdown can t be ruled out, and if it happens, it will be hard to see coming from the outside. Kraus did allow that GSAM's Active Equity products were scmewhat challenged in 2006, with most products "average" pertormers, in line with what we saw happening in the industry general - it became much harder than it has boen for most active managers to ceat the index.

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Private ctient expanding into stightly lower ${ }^{\text {i hish-net-worth }}$ " tiers, and i!lternatiasforiy

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Chart E: \% of Equity Hutual Fund Managers Outpedoming the S\&F


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Actlally. though. despite the apparent difficulty in deating US benchmarks, Kraus indicated that the most difficult area has been non-US develcped-markets cauity: where he is clearly dissatisfied with performance and thus with the size of the business. and where new leadership has th ds recently been brought in. This procuct area will now, it appears, become more research! analytically driven. In conlrast. Emerging Markets equity products have done well, with "billions of dollars of ret asset inflows.

Considerable publicity has surrounded the apparent underperformance last year of the mult-billion-dollar "Global Alpha" hedge fund, and the consequent derline in performance fees to be expected in 1007 vs. year-ago. Kraus conceded that HF product's performance inss been less strong than thesired but hefieves there are no fundamental issues with product design or investment strategy; no significant changes in management are beirg made. In ternาs of the decfine in fees, we'd note that GSAM asset growth overall has been so strong that the rise in staridard $r$ ariagement fees vs . year-ango should gio a lority wey lowerd offsetting what we estimate as ajout a $\$ 400+$ million decline in incentive fees. Goldman views performance fees as an option and is lrying to develop a broad portfolio of them, which should stabilize revenue - not all that different, in a sense, from the approach (and reality) of the firm's trading businesses, e.g. FICC.

As to the etemal question of whether too many funds are chasing the available opportunities in both Hedge Funds and Privaie Equity, Kraus's view is that this depends on the specific asset class, but overall he believes that, even if returns are less than they have been in previous years, they will still be adequate and that the diversifying effect on overall portfolios will keep investors involved. In general it is dear that he is very happy with GSAM's position in Alternatives ; the Private Equity funds as well as the Hedge Fund products are carried within GSAM) and that he far prefers GS' history of largely organic growh to the risks of cobbling tagether a business by buying stakes in the general parthers managing the funds

While GS has historically been associated, on the private-client side, with the "Ultra-HNW" segment, The firm is developing a suite of services for the next tier down, to include a number of quantilasive strategies, third-parly-distributed products, anc more of an outreach to emerging-wealth markets such as India China, and Korea. Both proprietary fund management products and funds of funds/manager of managers products are featured in the Emerging Markets.

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Beyond Errerging Markets，GSAM is also exparding its nigh net woith／Privare banking footprint in developed markets of Europe，seeing opportunty in France， Soandinavia，Germany，and Italy；and is building a Middte－East focused offshore private banking business，encompassing 20 or rore professionais in Lolndon and GS＇Swiss private hank．

This initiative will propably drive contimued grow hin the mumber uf privale bankers at GSAM，now arcund 50¢－600 glabally，we helleve；though clearly finding，recruiting， and retaining quality personnel is challenging（an！issue across many businesses within the errerging markers）．Qverall，ihough，t＇e frm expects to accelerate its private－client sales－force growfh from high－sirgle－digls to $10-12 \%$ ；the expense impac＇will continue to hold back margins for some tine from what they could be but the investment is slearfy viewed as worth being patient abcut．While acquisitions can be atractive，a＇d $G S$ is clearly very pleased with its Ayco acquisition a few years ago， there is very li：de available．so most growth will be creanic．

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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E42 | 936 | 844 | 896 | 41 | 2，975 | 3.518 | 3， $2 \cdot 6.1$ | 4，078 |
| $72 \%$ | 778 | 953 | 1.030 | 1，50 | 3，025 | 3.496 | 4，500 | 4，500 |
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| ES |  | 430 | 1.599 | 295 | 2，229 | 2；917 | 1， C 45 | 1，000 |
| こ，もくら | 5，985 | 3，524 | 5：755 | 5,440 | 12，477 | 20；539 | 17，戚7 | 18,1080 |
| 75 | 晾免 | 609 | ถ17？ | 775 | 1，905 | 2.590 | 7．8．65 | 1；553 |
| 785 | 918 | 679 | 717 | 805 | 1，768 | 3：049 | 3.145 | 3，875 |
| 1，47＂ | 1，526 | 1.288 | 1，3． 4.1 | 1，580 | 3，671 | 5，629 | E，C10 | 5，428 |
| 1，489 | 952 | 918 | 933 | 1，265 | 3，178 | 4：294 | 4,551 | 5，368 |
| 6．5 | F 2 | 57 | 4. | Q | （88； | 233 | 360 | 360 |
| 10，433 | 10，241 | 7.584 | 9，407 | 10，366 | 25，23日 | 37，665 | 37，212 | 37.815 |
| 5.874 | ¢ $\overline{\mathrm{D}} \mathrm{C} \overline{\mathrm{b}}$ | 4.047 | 4.285 | 5.535 | 12，95t | ： $2,8,80$ | 21，362 | 21， 250 |
| 487\％ | 48．5\％ | 44．3\％ | 25．3\％ | 47．5\％ | 46．67／ | 42．6\％ | 43．9\％ | 44．2\％ |
| 5.577 | 4.970 | 3，397 | 2.376 | 5，114 | 11，750 | 15．820 | 16， 3 \％ 3 | 16． 111 |
| 237 | 198 | － 33 | 129 | N | NA | 637 | NA | NA |
| 124 | $13^{*}$ | $-11$ | 148 | 150 | $49^{\circ}$ | 544 | 6.15 | 633 |
| 518 | 326 | 347 | 380 | 375 | $1.22 \varepsilon$ | 1.37 ？ | 1， 515 | 1.576 |
| 418 | 48.2 | 113 | 521 | 500 | 1．40： | 1.814 | 1.590 | 2.090 |
| 100 | $1{ }^{12}$ | －17 | 154 | 170 | 378 | 432 | 675 | 689 |
| 351 | 4 C 3 | 523 | 571 | 600 | 1，20： | 1，843 | 2.430 | 2． 559 |
| 85 | 122 | － 01 | 98 | $100^{\circ}$ | NA | 436 | 4． 0 | 400 |
| 34 | 44 | 50 | 15 | 45 | 124 | 173 | 180 | ： 84 |
| 1，4ลก！ | 1509 | 7.697 | 1.917 | 1，344 | 5，707 | 6， 648 | 7.605 | 8.197 |
| 6，744 | 6，717 | 5，222 | 4，422 | 7，054 | 16，965 | 2ง．105 | 24，158 | 24，837 |
| 3，589 | $3.523 ;$ | 2.362 | 4，985 | 3.712 | 8,272 | 14，560 | 13，055 | 12，979 |
| 1，210 | 1.212 | 76 R | 1.8833 | 1，70．5 | 2,647 | $5.10 \% 3$ | 4，519 | 4.478 |
| ． $22.3 \%$ | ． $3.4 \%$ | $32.5 \%$ | $36.8 \%$ | 34 y | $320 \%$ | $34.5 \%$ | $34.5 \%$ | 34．5\％ |
| 2，479 | 2，312 | 1．584 | 3.152 | 2，$\div 10$ | 5，68 | 5.537 | 8，526 | 8，501 |
| 2，453 | 2.26 B | 1：555 | 3，104 | 2，366 | 5，6c： | 9.393 | 8,326 | 8.301 |
| 457.3 | 4497 | 449.4 | 439.8 | 445.0 | 478.1 | －51．7 | 487.8 | 42 R .3 |
| 483．3 | 1783 | 177．4 | 470.7 | 166.5 | 500.2 | C．7．4．4 | 463.5 | 454．0 |
| S5．36 | \＄5．18 | 53．46 | \＄7．06． | \＄5．32 | 511.73 | \＄20．81 | S． 0.4 | \＄4．93 |
| S5．05 | \＄4．78 | 53.26 | \＄6．59 | \＄5．07 | 511.23 | \＄19．67 | き＇7．98 | \＄ 8.28 |

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## Analyst Certification

I. Guy Moszkowski, CFA hereby certify that the views expressed in this research report accuralely reflect ny personal views aboul the subjecl securities and issuers. I also certify that no bart of my comperisation was, is, or will be, directly or indirectly, related to the specitic recommendations or view expressed in this research report.
i().m:rtar Measures Definitions

| Eusiness Performance | Numerator | Derominator |
| :---: | :---: | :---: |
| Return On Capital Employed | NOPAT = (ESIT - Interest Income) ` (1-Tax Rate $\}+$ Gootvil Amonizalion | Total Asses - Curren1 Liablit es + ST Dett + Acc.Jmula:eo Gcodwil Amertizaticn |
| Retum On Esuty | Neilncerme | Shateheliters' Equily |
| Operating M/argin | Operatiry Praft | Sales |
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| Free Sosh Flas | Cash Flow From Ocerations - Tollal Supex | $\mathrm{N}_{1} \mathrm{~A}$ |
| Quality of Eamings |  |  |
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| Valuation Toolkit |  |  |
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| Dividend Yeld | Antualistrd Deciared Câsh Dividend | Sumpers. Shate Pritre |
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| Ente-pitse Value 'Sales | EV - Cument Shere Prce ${ }^{\circ}$ Cu'ent Shates + Mincrity Equity + Net Deb: + Ther _ ${ }^{*}$ Lizoitities | Sales |
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Goldma" Sachs Gro:p
13 March 2007

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| Coverage Universe | Count | Percent | Inv. Banking Relationsrips* | Count | Percen: |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Buy | 36 | 38.11\% | 3 y | 47 | 5c.54\%; |
| Neutral | $\cdots$ | 6/.38\% | Neutral | 69 | 49.23\% |
| Sell | 11 | 4.51\% | Selll | 4 | $36.35 \%$ |
| Investment Rating Distribution: Global Group fas of 3t Dec 2006) |  |  |  |  |  |
| Coverage Liniverse | Count | Pepeent | Inv. Banking Relationst ios* | Count | Percert |
| Bu' | 1306 | 42.74\% | 3 3y | 406 | 3:.03\%, |
| Neutral | 1509 | 49.38\% | Neutral | 4.16 | 25.50\%, |
| Sell | 261 | 7.89\% | Sell | 5.3 | $21.93 \%$, |


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13 March 2007

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## GOLDMAN SACHS (GS)

STRONG BUY
June 17, 2008

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- GS reported 2Q08 EPS of \$4.58, well ahead of consensus of \$3.42 and our estimate of \$3.43. Book value grew more than 5\% sequentially and the company's ROE was $20.4 \%$. These results also include $\$ 750 \mathrm{~m}$ ( $\$ 0.54$ per share) in write-downs/hedging losses related to leveraged loans, as well as a lower than expected tax rate (adding $\$ 0.35$ per share vs. our forecast).
- The majority of the upside was driven by better than expected revenues in investment banking, private equity, and prime brokerage (trading revenues were basically in line). In fact, total revenues were $10 \%$ above our forecast. Also contributing to the upside was solid expense discipline, with non-comp expenses falling $6 \%$ sequentially vs. our expectation of flat expenses.
- Raising 2008 EPS to $\$ 16.20$ from $\$ 16.00$ to partially reflect the sizable "beat" this quarter. We believe the estimate is conservative given the continued evidence of stabilizing credit markets over the past three months and the potential for market share gains as many peers "retrench."
- In terms of the stock, while GS trades at a substantial premium to its peers, we believe it is warranted given its diversified franchise, strong brand, higher ROE profile, and peerless risk management. And at $1.9 x$ current book value and $1.7 x$ ' $08 E$ book value, the stock trades well below fair value when considering a 20\% ROE profile. Consequently, we reaffirm our Strong Buy rating, although we continue to see more upside in the likes of MS at 1.3x book.

| Target | $\$ 250.00$ |
| :--- | ---: |
| Price (06/17/2008) | $\$ 179.44$ |
| 52-Week Price Range | $\$ 251-\$ 140$ |
| Shares Out. (mil.) | 427.9 |
| Market Capitalization (mil.) | $\$ 76,782.4$ |
| Float | 349.5 |
| Avg. Daily Vol. (mil.) | 12.0 |
|  |  |
| Dividend/Yield | $\$ 1.40 / 0.7 \%$ |
| Book Value (05/31/2008) | $\$ 97.49$ |
| Debt/Capital (05/31/2008) | $78.6 \%$ |
| 2 Yr. Growth Rate | NM |
| ROE (2008E) | $17.9 \%$ |



|  | EARNINGS PER SHARE ESTIMATES |  |  |  |  |  |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- |
| FYE Nov | Q1 | Q2 | Q3 | Q4 | Fiscal Yr | FY P/E |
| $\mathbf{2 0 0 7 E}$ | $\$ 6.67 \mathrm{~A}$ | $\$ 4.93 \mathrm{~A}$ | $\$ 6.13 \mathrm{~A}$ | $\$ 7.01 \mathrm{~A}$ | $\$ 24.73 \mathrm{~A}$ | 7.3 x |
| $\mathbf{2 0 0 8 E}$ | $\$ 3.23 \mathrm{~A}$ | $\$ 4.58 \mathrm{~A}$ | $\$ 3.60 \mathrm{E}$ | $\$ 4.79 \mathrm{E}$ | $\$ 16.20 \mathrm{E}$ | 11.1 x |
| prior | -- | -- | $\$ 3.76 \mathrm{E}$ | $\$ 5.58 \mathrm{E}$ | $\$ 16.00 \mathrm{E}$ |  |
| $\mathbf{2 0 0 9 E}$ | -- | -- | -- | -- | $\$ 21.00 \mathrm{E}$ | 8.5 x |

Company Description - Growth Drivers - Risks: Goldman Sachs is a leading global investment bank engaged in three principal segments: Investment Banking (16\% of revenue in 2007); Trading \& Principal Investments ( $68 \%$ of revenue) and Asset Management \& Securities Services ( $16 \%$ of revenue). Growth drivers: increased client activity associated with stronger economic and market performance; broadening client relationships; and international expansion. Risk factors: Market, economic, and competitive risks.

## INVESTMENT SUMMARY

Goldman Sachs reported 2Q08 EPS of \$4.58, well ahead of consensus of \$3.42 and our estimate of \$3.43. Book value grew $5 \%$ sequentially and the company's ROE was $20.4 \%$. These results also include $\$ 750 \mathrm{~m}$ ( $\$ 0.54$ per share) in write-downs/hedging losses related to leveraged loans. While a lower than expected tax rate contributed to the upside (adding $\$ 0.35$ per share vs. our forecast), the majority of the upside was driven by better than expected revenues in investment banking, private equity, and prime brokerage (trading revenues were basically in line). In fact, total revenues were $10 \%$ above our forecast. Also contributing to the upside was solid expense discipline, with non-comp expenses falling $6 \%$ sequentially vs. our expectation of flat expenses.

In terms our EPS estimates, given the sizable "beat" this quarter, we are increasing our FY08 EPS estimate to $\mathbf{\$ 1 6 . 2 0}$ from $\mathbf{\$ 1 6 . 0 0}$. While this increase is meaningfully less than the 2Q08 upside (implying a reduction in 2 H 08 EPS estimates), this simply reflects a more conservative forecast for both private equity and fixed income trading given the still uncertain macro environment. That said, we are certainly biased to the upside on our estimates given the continued evidence of stabilizing credit markets over the past three months. Moreover, the potential for market share gains across many of its businesses (which was particularly evident in prime brokerage this quarter) as many of its competitors "retrench" also gives us a positive bias to our EPS estimates going forward.

In terms of the stock, while GS trades at a substantial premium to its peers, we believe it is warranted given its diversified franchise, its strong brand (which enables market share gains during challenging market environments), higher ROE profile, and peerless risk management. More specifically, GS trades at 1.87 x 2 Q 08 book value, a $34 \%$ premium to the 1.4 x average for MS and MER. However, considering GS's faster book value growth from its higher ROE, that premium falls to $30 \%$ based on end of year book value and falls to $25 \%$ when looking at 2009 book value estimates. But that said, given this premium, we do see more upside in names like MS and LEH. However, on an absolute basis, its current book value multiple seems low given a $20 \%+$ ROE profile, which historically has translated into a P/B multiple well north of 2.0 x . Consequently, we reaffirm our Strong Buy rating and $\$ 250$ price target.

## 2Q08 Highlights:

- Investment banking revenues exceeded our forecast by $\mathbf{2 3 \%}$. While debt underwriting revenues were below our forecast, we saw upside in both advisory revenues and equity underwriting. In advisory fees, revenues rose $21 \%$ sequentially and $13 \%$ YOY, helped by non M\&A related advisory assignments (i.e. advising on capital structure issues). Equity underwriting revenue was the biggest surprise, up more than threefold sequentially and the highest quarter in 8 years, reflecting market share gains, its top role in the Visa IPO, and a large number of recapitalizations of financial institutions. Looking ahead, management noted that the pipeline was down somewhat sequentially, with an increased pipeline in equity underwriting partially offsetting a decline in the M\&A pipeline.
- FICC revenues were slightly below our forecast, down $\mathbf{2 5 \%}$ sequentially. Included in FICC this quarter was $\$ 750$ million in losses related to leveraged loans -- $\$ 500$ million of which were losses on hedges. FICC also included approximately $\$ 200$ million in negative marks related to its liabilities. Normalizing for these items, we calculate that FICC revenues were basically flat YOY - not a bad result considering the weak trading environment in March. That said, run rate revenues were down meaningfully on a sequential basis, reflecting again the weak results in March and fewer higher margin structured derivatives trades given the more volatile market environment. Looking ahead, we expect write-downs to continue to diminish given sizable reductions in risky assets. For instance,
"legacy" leveraged loan positions are down to $\$ 11$ bn (combined with $\$ 8 \mathrm{bn}$ of "new" leveraged loans, brings GS's total leveraged loan exposure to $\$ 19 \mathrm{bn}$ ). On the mortgage side, residential mortgage exposure fell to $\$ 15 \mathrm{bn}$ from $\$ 19 \mathrm{bn}$, while commercial real estate exposure fell to $\$ 17 \mathrm{bn}$ from $\$ 19 \mathrm{bn}$. GS had immaterial losses on these positions in the quarter, and we would expect limited write-downs in future quarters. Consequently, with exposures down and credit markets improving, we could see FICC revenues start to show some improvement in coming quarters.
- Equities trading was modestly above our forecast and essentially flat YOY. Commissions were flat sequentially and up $14 \%$ YOY, reflecting solid YOY volume growth globally. On the principal side, strong results in cash equities and derivatives were offset by very weak results in GS's proprietary trading business. Looking ahead, we don't expect to see a material ramp up in its proprietary business given the volatile and uncertain environment - which will keep GS from putting large amounts of capital to work. However, the cash and derivatives business should continue to grow solidly given global growth and market share gains.
- Private equity also was well ahead of our forecast, with revenues of $\$ 725 \mathrm{~m}$ vs. our forecast of $\$ 200 \mathrm{~m}$. While gains on ICBC shares were essentially in line with our forecast of $\$ 200 \mathrm{~m}$, GS was able to generate additional investment gains outside of this holding, reflecting the positive move in global equity markets during the quarter (with most of the gains unrealized and related to market appreciation). This revenue line is certainly volatile and the gains here need to be discounted to some extent, but longer term, this business should drive solid returns. However, given the still volatile equity markets, we did reduce our forecast for private equity gains for the remainder of this year.
- Prime brokerage revenues rose $\mathbf{3 0 \%}$ YOY and were $10 \%$ above our forecast. The upside was driven by market share gains and improved pricing power in the industry. Given the strength this quarter and expectations of further pricing power and market share gains, we did increase our forecast for revenues in 2 H 08 and into 2009.
- In terms of expenses, the compensation ratio was in line with expectations at $48 \%$. However, noncomp expenses fell nearly $6 \%$ sequentially given lower volume related expenses and a continued focus on reigning in expenses given the environment. In fact, GS is still less than halfway through its target of generating $\$ 500 \mathrm{~m}$ of annualized cost savings in non comp expenses. Consequently, we would expect non comp expenses to be flat to down from 2 Q 08 levels (excluding the impact from volume related expenses such as clearing).
- Book value grew to $\mathbf{\$ 9 7 . 4 9}$ per share, up $\mathbf{5 \%}$ sequentially and ahead of our forecast of $\mathbf{\$ 9 5 . 3 4}$. The stronger than expected earnings drove the upside, with book value rising $20 \%$ YOY.
- Management noted that GS's Tier 1 ratio is $\mathbf{1 0 . 8 \%}$ in $\mathbf{2 Q} 08$, well above minimum requirements of $6.0 \%$ and most commercial banks that are at $8 \%$. In terms of leverage, management noted that its balance sheet declined from $\$ 1.2$ trillion in 1 Q 08 to closer to $\$ 1.1$ trillion in 2Q08. Along with strong growth in common equity via retained earnings (common equity grew $5.5 \%$ sequentially and book value per share rose $20 \% \mathrm{YOY}$ ), this pushed gross leverage down to 24.3 x from 27.9 x in 1Q08 and net leverage down to 14.7 x from 18.6 x in 1 Q 08 . Given GS's high ROE profile, we expect to see continued strong growth in equity (given limited buybacks in this environment). Combined with more limited balance sheet growth, we would expect leverage to continue to fall.

Goldman Sachs -- Earnings Results and Forecasts FYE-November

| (\$ in millions, except share and per share amount |  | Y 2007 | \% Chg |  | 1008 | \% Chg |  | 2 Q08 | \% Chg |  | 3Q08E | \% Chg |  | 4Q08E | \% Chg |  | Y 2008E | \% Chg |  | 2009E | \% Chg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenues |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Investment banking | \$ | 7,555 | 34.6\% | \$ | 1,166 | -32.1\% | \$ | 1,685 | -2.0\% | \$ | 1,124 | -47.6\% | \$ | 1,325 | -32.9\% | \$ | 5,301 | -29.8\% | \$ | 5,380 | 1.5\% |
| Trading and principal investments |  | 29,714 | 23.7\% |  | 4,877 | -46.2\% |  | 5,239 | -16.1\% |  | 4,965 | -34.5\% |  | 5,439 | -20.3\% |  | 20,520 | -30.9\% |  | 25,720 | 25.3\% |
| Asset management and securities services |  | 4,731 | 4.5\% |  | 1,341 | 18.4\% |  | 1,221 | 10.3\% |  | 1,371 | 7.8\% |  | 1,355 | 11.2\% |  | 5,288 | 11.8\% |  | 6,325 | 19.6\% |
| Net interest income |  | 3,987 | 14.0\% |  | 951 | 17.7\% |  | 1,277 | 14.7\% |  | 1,052 | -21.6\% |  | 1,053 | 45.2\% |  | 4,333 | 8.7\% |  | 4,400 | 1.5\% |
| Net revenues |  | 45,987 | 22.1\% |  | 8,335 | -34.5\% |  | 9,422 | -7.5\% |  | 8,512 | -31.0\% |  | 9,173 | -14.6\% |  | 35,442 | -22.9\% |  | 41,825 | 18.0\% |
| Cash expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Comp and benefits, excluding employee ipo awi |  | 20,190 | 22.7\% |  | 4,001 | -34.5\% |  | 4,522 | -7.5\% |  | 4,085 | -31.0\% |  | 3,853 | 17.7\% |  | 16,461 | -18.5\% |  | 19,030 | 15.6\% |
| Brokerage, clearing and exch fees |  | 2,758 | 38.9\% |  | 790 | 43.4\% |  | 741 | 16.1\% |  | 755 | -5.0\% |  | 785 | 1.4\% |  | 3,071 | 11.3\% |  | 3,390 | 10.4\% |
| Marketing development |  | 601 | 22.2\% |  | 144 | 9.1\% |  | 126 | -12.5\% |  | 140 | -5.4\% |  | 175 | -1.1\% |  | 585 | -2.7\% |  | 635 | 8.5\% |
| Communications and technology |  | 665 | 22.2\% |  | 187 | 23.8\% |  | 192 | 19.3\% |  | 195 | 15.4\% |  | 205 | 11.4\% |  | 779 | 17.1\% |  | 825 | 5.9\% |
| Occupancy and equipment |  | 975 | 14.7\% |  | 236 | 15.7\% |  | 234 | 11.4\% |  | 237 | 8.7\% |  | 245 | -28.6\% |  | 952 | -2.4\% |  | 990 | 4.0\% |
| Professional fees |  | 714 | 31.0\% |  | 178 | 10.6\% |  | 185 | 14.9\% |  | 190 | 1.1\% |  | 202 | -1.0\% |  | 755 | 5.7\% |  | 800 | 6.0\% |
| Other |  | 1,326 | 17.1\% |  | 402 | 36.7\% |  | 370 | 32.6\% |  | 395 | 12.5\% |  | 460 | 14.4\% |  | 1,627 | 22.7\% |  | 1,715 | 5.4\% |
| Total non-compensation expenses |  | 7,374 | 23.8\% |  | 1,937 | 22.8\% |  | 1,848 | 10.4\% |  | 1,912 | -2.3\% |  | 2,072 | -4.3\% |  | 7,769 | 5.4\% |  | 8,355 | 7.5\% |
| Total cash expenses |  | 27,564 | 23.0\% |  | 5,938 | -22.8\% |  | 6,370 | -2.9\% |  | 5,997 | -23.9\% |  | 5,925 | 8.9\% |  | 24,230 | -12.1\% |  | 27,385 | 13.0\% |
| Non-cash expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Depreciation and amortization |  | 624 | 19.9\% |  | 170 | 28.8\% |  | 183 | 30.7\% |  | 190 | 31.0\% |  | 195 | -5.8\% |  | 738 | 18.3\% |  | 738 | 0.0\% |
| Amortization of intangibles |  | 195 | 13.0\% |  | 84 | 64.7\% |  | 37 | -26.0\% |  | 40 | -24.5\% |  | 40 | -2.4\% |  | 201 | 3.1\% |  | 201 | 0.0\% |
| Total expenses |  | 28,383 | 22.8\% |  | 6,192 | -21.3\% |  | 6,590 | -2.4\% |  | 6,227 | -22.9\% |  | 6,160 | 8.3\% |  | 25,169 | -11.3\% |  | 28,324 | 12.5\% |
| Net income before taxes |  | 17,604 | 20.9\% |  | 2,143 | -55.9\% |  | 2,832 | -17.5\% |  | 2,285 | -46.4\% |  | 3,013 | -40.4\% |  | 10,273 | -41.6\% |  | 13,501 | 31.4\% |
| Effective tax rate |  | 34\% |  |  | 29\% |  |  | 26\% |  |  | 28\% |  |  | 28\% |  |  | 28\% |  |  | 31\% |  |
| Provision/(benefit) for taxes |  | 6,005 | 19.6\% |  | 632 | -62.0\% |  | 745 | -32.1\% |  | 640 | -54.5\% |  | 847 | -54.0\% |  | 2,863 | -52.3\% |  | 4,118 | 43.8\% |
| Net income | \$ | 11,599 | 21.6\% | \$ | 1,511 | -52.7\% | \$ | 2,087 | -10.5\% | \$ | 1,645 | -42.4\% | \$ | 2,167 | -32.6\% | \$ | 7,410 | -36.1\% | \$ | 9,383 | 26.6\% |
| Preferred dividends |  | 192 | 38.1\% |  | 44 | -10.2\% |  | 36 | -21.7\% |  | 36 | -25.0\% |  | 36 | -26.5\% |  | 152 | -20.8\% |  | 144 | -5.3\% |
| Net income avail to common | \$ | 11,407 | 21.4\% | \$ | 1,467 | -53.4\% | \$ | 2,051 | -10.3\% | \$ | 1,609 | -42.7\% | \$ | 2,131 | -32.7\% | \$ | 7,258 | -36.4\% | \$ | 9,239 | 27.3\% |
| Per-Share Amounts |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net income, diluted | \$ | 24.71 | 25.5\% | \$ | 3.23 | -51.5\% | \$ | 4.58 | -7.0\% | \$ | 3.60 | -41.2\% | \$ | 4.79 | -31.7\% | \$ | 16.20 | -34.4\% | \$ | 21.00 | 29.7\% |
| Operating earnings, diluted |  | 24.73 | 25.6\% |  | 3.23 | -51.5\% |  | 4.58 | -7.0\% |  | 3.60 | -41.2\% |  | 4.79 | -31.7\% |  | 16.20 | -34.5\% |  | 21.00 | 29.7\% |
| Common dividend |  | 1.40 | 7.7\% |  | 0.35 | 0.0\% |  | 0.35 | 0.0\% |  | 0.35 | 0.0\% |  | 0.35 | 0.0\% |  | 1.40 | 0.0\% |  | 1.52 | 8.6\% |
| Book value |  | 90.43 | 24.5\% |  | 92.44 | 19.9\% |  | 97.49 | 19.9\% |  | 100.43 | 18.6\% |  | 107.84 | 19.2\% |  | 107.84 | 19.2\% |  | 124.58 | 15.5\% |
| Tangible book value |  | 78.88 | 28.3\% |  | 80.28 | 22.1\% |  | 85.16 | 21.7\% |  | 88.10 | 20.5\% |  | 95.61 | 21.2\% |  | 95.61 | 21.2\% |  | 112.53 | 17.7\% |
| Avg. shares outstanding (diluted) |  | 461.3 | -3.4\% |  | 453.5 | -3.9\% |  | 447.4 | -3.6\% |  | 446.4 | -2.4\% |  | 444.9 | -1.5\% |  | 448.1 | -2.9\% |  | 439.9 | -1.8\% |
| Avg. shares outstanding (basic) |  | 433.1 | -3.6\% |  | 432.8 | -2.6\% |  | 427.5 | -1.9\% |  | 426.4 | -0.6\% |  | 424.9 | 0.5\% |  | 427.9 | -1.2\% |  | 409.9 | -4.2\% |
| Period end shares outstanding |  | 439.0 | -2.5\% |  | 427.6 | -2.4\% |  | 427.9 | -1.6\% |  | 424.9 | -0.1\% |  | 424.9 | -3.2\% |  | 424.9 | -3.2\% |  | 414.9 | -2.4\% |
| Return Statistics (Operating) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Return on average assets |  | 1.26\% |  |  | 0.58\% |  |  | 0.80\% |  |  | 0.60\% |  |  | 0.76\% |  |  | 0.64\% |  |  | 0.79\% |  |
| Return on common equity |  | 33.7\% |  |  | 15.7\% |  |  | 20.9\% |  |  | 15.8\% |  |  | 19.9\% |  |  | 17.9\% |  |  | 19.4\% |  |
| Return on tangible equity |  | 38.5\% |  |  | 18.6\% |  |  | 24.9\% |  |  | 19.0\% |  |  | 23.0\% |  |  | 19.3\% |  |  | 21.2\% |  |
| Productivity Statistics |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Expenses to net revenues |  | 61\% |  |  | 73\% |  |  | 70\% |  |  | 73\% |  |  | 67\% |  |  | 70\% |  |  | 67\% |  |
| Compensation and benefits to net revenues |  | 43.9\% |  |  | 48.0\% |  |  | 48.0\% |  |  | 48.0\% |  |  | 42.0\% |  |  | 46.4\% |  |  | 45.5\% |  |
| Non-int expense ex comp \& bnfts to net revs |  | 17\% |  |  | 25\% |  |  | 22\% |  |  | 25\% |  |  | 25\% |  |  | 24\% |  |  | 22\% |  |
| Pre-tax operating margin |  | 38\% |  |  | 26\% |  |  | 30\% |  |  | 27\% |  |  | 33\% |  |  | 29\% |  |  | 32\% |  |
| Employees |  | 30,522 | 15.3\% |  | 31,874 | 18.2\% |  | 31,495 | 12.4\% |  | 31,750 | 6.2\% |  | 31,750 | 4.0\% |  | 31,750 | 4.0\% |  | 33,000 | 3.9\% |
| Net revenues per employee | \$ | 1.51 | 5.9\% | \$ | 1.05 | -44.6\% | \$ | 1.20 | -17.7\% | \$ | 1.07 | -35.0\% | \$ | 1.16 | -17.9\% | \$ | 1.12 | -25.9\% | , | 1.27 | 13.5\% |
| Cash expenses per employee | \$ | 0.90 | 6.7\% | \$ | 0.75 | -34.7\% | \$ | 0.81 | -13.6\% | \$ | 0.76 | -28.3\% | \$ | 0.75 | 4.7\% | \$ | 0.76 | -15.5\% | \$ | 0.83 | 8.7\% |
| Contribution as \% of net revenues |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Financial advisory |  | 9.2\% |  |  | 8.0\% |  |  | 8.5\% |  |  | 7.1\% |  |  | 7.1\% |  |  | 7.7\% |  |  | 5.9\% |  |
| Equity underwiting |  | 3.0\% |  |  | 2.1\% |  |  | 6.5\% |  |  | 3.2\% |  |  | 3.8\% |  |  | 4.0\% |  |  | 3.6\% |  |
| Debt underwiting |  | 4.2\% |  |  | 4.0\% |  |  | 2.9\% |  |  | 3.5\% |  |  | 4.1\% |  |  | 3.6\% |  |  | 3.9\% |  |
| Investment banking |  | 16.4\% |  |  | 14.1\% |  |  | 17.9\% |  |  | 13.8\% |  |  | 15.0\% |  |  | 15.3\% |  |  | 13.4\% |  |
| FICC |  | 35.2\% |  |  | 37.7\% |  |  | 25.2\% |  |  | 31.7\% |  |  | 30.5\% |  |  | 31.1\% |  |  | 33.5\% |  |
| Equities |  | 24.6\% |  |  | 30.2\% |  |  | 26.4\% |  |  | 26.7\% |  |  | 28.6\% |  |  | 27.9\% |  |  | 27.3\% |  |
| Principal investments |  | 8.2\% |  |  | -6.4\% |  |  | 7.7\% |  |  | 2.3\% |  |  | 2.5\% |  |  | 1.7\% |  |  | 2.9\% |  |
| Trading and principal investments |  | 67.9\% |  |  | 61.5\% |  |  | 59.3\% |  |  | 60.8\% |  |  | 61.6\% |  |  | 60.8\% |  |  | 63.6\% |  |
| Wealth management |  | 9.8\% |  |  | 15.8\% |  |  | 12.3\% |  |  | 14.6\% |  |  | 14.4\% |  |  | 14.2\% |  |  | 13.7\% |  |
| Securites services |  | 5.9\% |  |  | 8.7\% |  |  | 10.5\% |  |  | 10.8\% |  |  | 8.9\% |  |  | 9.7\% |  |  | 9.3\% |  |
| Asset mgmt. and securities services |  | 15.7\% |  |  | 24.5\% |  |  | 22.8\% |  |  | 25.4\% |  |  | 23.4\% |  |  | 24.0\% |  |  | 23.0\% |  |

Source: Company reports and Buckingham Research estimates.

## IMPORTANT DISCLOSURES

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The above-named analyst hereby certifies that the views expressed in this research report accurately reflect his/her personal views about the subject company and its securities. The analyst also certifies that he/she has not been, does not, and will not be receiving direct or indirect compensation in exchange for expressing the specific recommendation in this report.

| Company | Disclosure |
| :--- | :--- |
| Goldman Sachs |  |

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ACCUMULATE -- We expect $15 \%$ or more appreciation over the next $6-12$ months and the stock is attractively valued; however, near-term catalysts are lacking.
NEUTRAL -- The stock's current price reflects our intermediate-term price objectives, and positions may be reduced. UNDERPERFORM -- There appears to be more risk than reward in this stock at current levels. We expect the stock to underperform over the next 6-12 months.
NOT RATED -- We are not carrying a rating on this stock for the time being. Rating \& estimates under review.
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## PRICE CHARTS

| GS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1) 06/16/05 | 2) 08/30\%05 | 3) 09/21/05 | 4) $12 / 16 / 05$ | 5) 02/06/06 | 8) $03 / 14 / 06$ | 7) 05/18/06 |
| Strong Buy \$129 | Strong Buy \$134 | Strong Buy \$140 | Strong Buy \$145 | Strong Buy \$184 | Strong Buy \$192 | Strong Buy \$208 |
| 8) 11/09/06 | 9) $12 \% 06 / 06$ | 10) $12 / 13 / 06$ | 11) $06 / 15 / 07$ | 12) 09/21/07 | 13) 03/19/08 |  |
| Strong Buy \$213 | Strong Buy \$256 | Strong Buy \$260 | Strong Buy \$275 | Strong Buy \$285 | Strong Buy \$250 |  |




纙 Senior mgt cautious, but seeing investment, mkt share opportunities from crisis
Still cautious, but GS seeing solid activity in customer franchise businesses, strong market share gains. Relatively unscathed by credit debacle, GS is more outwardly focused than peers, able to commit balance sheet flexibly as needed. Clearly $G S$ is one of less than a handful of relative winners from the crunch.

Cyclical-bottom ROE prospects better now than in'02
GS believes it can oulearn ROE produced at bottom or last cycle ( $11 \%$ in ${ }^{\circ} 02$ ) due to greater giobal diversity of its revenues, rising relurns available as many peers pull back, and growing markel share as above. GS feeling less pressure to de-leverage: Ihan peers, but does hold more capital than it believes is ideal at this point ( $10.8 \%$ Tier-1 vs. "ncrmal" seen as $9.5-10 \%$ ). If proposed consolidation of securitized balances goes forward, though, the current capital could be needed.

Liquidity is job one: Likelihood rising that GS buys a bank Key lesson of current crisis is one GS has always known: importance of liquidity and availability of 'sticky' funding. We believe G.S would not look entirely askance at prospect of buying a depository, a significant change. We still would not ascribe very high probability, but if a bank with excess deposits were available at right price, with ro need for GS to exit existing businesses, we'd no longer rule it out.

Big distressed-mortgage opportunity seen, but maybe not just yet.
GS' largest single revenue opportunity over the next couple of years: morigages. To prepare, GS bought Litton (sub-prime servicer) earlier this year, and strengthencd its team with a key hire from the late Bear Stearns. Timing unclear because many assets still hard to price given falling house prices, rising delinquencies. but opportunity expected to be large.

| 繖 Estimates (Nov) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (US\$) | 2006 A | 2007 A | 2008E | 2009E | 2010E |
| EPS | 19.72 | 24.73 | $\cdots 71$ | 20.92 | 25.66 |
| gasp eps | 19.72 | 24.73 | $\bigcirc 7$ | 20.92 | 25.c¢ |
| EPS Change ;Yo | 75.9\% | 25.4\% | -29.4\% | 18.1\% | 22.7\% |
| Consensus EPs (Bloomberg) |  |  | :6.93 | 19.93 | 21.55 |
| Dividitnd Rata | 1.30 | 1.43 | 1.40 | 1.40 | 145 |
| Valuation (Nov) |  |  |  |  |  |
|  | 2006A | 2007A | 2008E | 20095 | 2010E |
| Pre | 9.1k | 7.2x | 10.1x | 8.5x | 7.0x |
| GAAP P:E | 9.1x | 7.2. | 10.1\% | 8.5x | 7.0x |
| Dividend Yield | 07\% | 0.8\%\% | 0.8\% | 0.8\% | $0.8 \%$ |

Equity I United States ! Secur ties Broker?Dealer 28 July 2008


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Stock Data
Price US $\$ 178.66$
Price $\quad$ US\$178.66
$\begin{array}{lr}\text { Price Objective } & \text { USS212.00 } \\ \text { Date Established } & 18-J u n-2008\end{array}$
Thyestment Cpinati C-1-7
Vdatility Risk HIGH
52-Week Range US\$140.27-250.70
TMrkt Val / Shares Out (mn) US $\$ 76,377 / 427.5$
M_Symbali' Mc Clange $3 S$ /NFS
Blcomberg ; Reiters GSUS/GSN
ROE [20(48E)
Leverage (2007A)
$18.8^{9} ;$
$91.4 \%$
Est $5-{ }^{-} \mathrm{V}$ EPS / DPS Grewth $\quad 0.0 \% / 0 \%$


Quartery Earnings Esimales

|  | 2007 | 2008 |
| :--- | ---: | ---: |
| 01 | 6.67 A | 3.23 A |
| 02 | 6.93 A | 4.58 A |
| 03 | 6.134 | 4.28 E |
| 04 | 7.01 A | 5.61 E |

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Refer to important disclosures on page 11 to 12. Analyst Certiflcation on Page g. Pfice Objectlve BasisiRisk on page 8.


Goldman Sachs Group
28 July 2008

## iQprofile" Goldman Sachs Group

| Intorne Statement Daxa (Nov) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (US\$ Millions) | 2016A | 2007A | 2008E | 2009E | 201 DE |
| Net Rerenues | 37,681 | 45.98 T | 37,:73 | 43.563 | 50.204 |
| Compensaiion \& Benefits | (15.820) | $(20,190)$ | (17.049) | \|19,0¢73i] | [22,582] |
| $\%_{\text {of }}$ Net Revente | 42.8 | 43.9 | 45.9 | 45.0 | 45.6 |
| Non-Comornsation Expenses | $\left.i^{7}: 285\right)$ | (B.193) | 'B,574) | ¢5,352] | (6,352) |
| Net licame to Jrd nary Sharehalders | ¢,414 | 11,407 | 8.1542 | 9,642 | 11,761 |
| Adjusied Nel Incume (Operabirgi) | 5.414 | 11.407 | 8,742 | 9.694 | 11.761 |
| Ealance Sheet Data (Nov) |  |  |  |  |  |
| (USS Miltions) | 2006A | 2007A | 2008E | 2009E | 20105 |
| Tcial Assets | 828,201 | 1.119.796 | - 143.530 | 1315.060 | 1.512.31¢ |
| Total Srareholders Equily | 95,786 | 42:800 | 19,337 | 55.759 | 64.481 |
| Nel Assels | 621,972 | NA | NA | NA | NA. |
| Targible Sharehuldear' Equily | NA | NA | NA | NA | NA. |
| 5vPS \{Etatec Equity) | 72.62 | 30.43 | 907.43 | 123.50 | 146.78 |
| \% growh | 27.4 | 24.5 | 18.8 | 14.7 | 19.8 |
| Trading (Nov) |  |  |  |  |  |
| ? US\$ Miltions) | 2006A | 2007A | 2008E | 2009 E | 2010 E |
| Net ${ }^{-r a d i n g ~ R e v ~(-P r i n c ~ T r a n s ~+N e: ~ I n:) ~}$ | 15,840 | 25,364 | 20,78 | 25:799 | 31,605 |
| \% grouth | 5.3.4 | 27.8 | -18.' | 29.0 | 8.7 |
| ROA (Net Trad Revtave Bal Sht As:s) | 2.54\% | 2.55\% | 1.84\% | 2.13\% | 2, $25 \%$ |
| Value-at-Risk | 101 | 13\% | NA | VA | VA |
| VaR as a \% ef Tctal Equty | 0.28\% | 0.32\% | AA | NA. | v ${ }^{\text {a }}$ |
| livestment Banking (Nov) |  |  |  |  |  |
| \{US§ Millions) | 2006 A | 2007A | 2008E | 20.35 | 2010 |
| Financial Advisory Reyenues | ¢ .580 | 4.222 | 2,838 | 2,161 | 2.594 |
| Equity Underwring Reverues | 1,365 | 1.382 | 1,498 | 1.188 | 1.425 |
| Debt Underwriling Reverues | 1,684 | †,951 | 1,26 ${ }^{\circ}$ | 1,399 | 1.679 |
| Tctal Investment Banking Reverue | ¢,629 | 7,555 | 5:597 | 4,748 | 5:698 |
| \% growh | 53.3 | 34.2 | -25.9 | -15.2 | 2.0 |
| Periormance Metrics (Nov) |  |  |  |  |  |
| (LS\$\$ Miltiolis) | 2006A | 2007A | 2008E | 2009 E | 2010E |
| ROE (Staied Equily) | 32.8\% | $32.7 \%$ | 19.8\% | 14.51/4 | 20.1\% |
| Operaling Nargin | 38.7\% | 38.33/ | 31.1\% | 34.4\% | 35.4\% |
| Pre-Tax Protic Margir | 38.7\% | 38.3\% | 31.1\% | 34.4\% | 36.4\% |
| Nel Pscifl Mazgin | 25.0\% | 24.3\% | 21.5\% | 22,3\% | 23.4\% |
| Comp Expense:Revenue | 42.0\% | 43.9\% | 45.3\% | 45.3\% | 45.6\% |
| Non-Conotexpense / Zeverue | 19.3\% | 17.8\% | 23.1\% | 20.3\% | 18.6\% |
| Net Revenue Growth | 49.3\% | 22.0\% | .19.2\% | 17.2\%/ | 15.2\% |
| Operating Expense Growth | 36.2\% | 22.8\% | -3.7\% | 19.53/2 | 11.8\% |
| Operating fincorne + Average Assels | 4.8\% | 4.6\% | 3.3\% | 3.5\% | 3.6\% |
| Tasaing-Relaled Revenue / Net Rכvenue | 52.7\% | 55.2\% | 55.3\% | 61.5\% | 63.4\% |
| Assel Management \& =ea Res/Net Re'/ | 11.4\% | 9.8\% | 13.5\% | 13. ${ }^{\text {P\% }}$ | 12.3\% |
| Total Emplayees (Aztuc); | $2 \mathrm{E}, 467$ | 30,522 | NA | NA | ve. |

Goldman Sachs Group

## Cyclical backdrop remains pressured, but macro products doing well and GS is a "go-to" <br> We met last week with Co-Pres. Jon Winkelried, CFO David Viniar, and David Heller and Harvey Schwartz, responsible for Equities and FICC, respectively, in the US.

Clearly GS remains cautious about the broader economic and public policy backdrop, given the magnitude of the mortgage and consumer-credit meltdown and the consequent destabilization of major financial institutions. The big swings in market sentiment can unleash waves of activity but when confidence erodes, clients move to the sidelines, staying liquid and relatively inactive. The most liquid-markets oriented businesses (rates, FX, high-grade corporates) have been busy, but activity has been more sporadic as one moves up the risk curve. GS is benefiting from having maintained its reputation and its balance-sheet capacity at a time when others have had to retrenela.

Less balance sheet constrained than the peer group, which supports both Franchise and Principal businesses To date the firm's read of the likety changes in the regulatory environment is that the fallout will be manageable, and while cyctically earnings power is under pressure, in many ways GS is, we believe, a beneficiary rather than a victim of the current batkdrop. The firm is not finding that it is facing any particularly binding constraints on profitability as a result of the de-leveraging trend. In any event, GS is not pressured to de-leverage as have firms that have had losses and run into capital issues. To the extent that its leverage has come down, this is more than anything else a resporise to the uncertainly in markets broadly and the fact that risk reduction has been the appropriate response. The cost of capital overall has not changed much for GS but it has made risk-based adjustments to capital cherges for certain businesses or exposure classes and this has of course in some cases forced down exposure.

As always، GS remalns "constructively paranoid" about risk management. The firm believes that at a time like this it is best to be in a position of great flexibility regarding the use of capital, implying a desire to be very tactical as conditions change. The expectation is that major opportunities to make principal investrnents will arise at a time of stress for many instifutions and investors, but at the same lime, clients of the "franchise businesses" (i.e., traditional trading and Investment Banking) will be In need of support from the firm's balance sheet and this is as always a critical concern. Despite the fairly constant undertone of criticism over the firm's embrace of principal activities, we believe that Goldman has actually tended its customer-oriented businesses carefully, which explains why at the end of the day, the world tends to cume to Goldman, and the absence of major conflicl problems.

## More market share? It seems to be happening

GS continues to view its share-gain opportunity as very strong, something we have flagged since last autumn; GS is one of less than a handful of capital-markets firms that have (at least to date) weathered the downtum with capital intact and, if anything, enfanced reputation. We believe $G S$ has seen market share gains in numerous key business lines, as many competitors have pulled back because of a need to shrink balance sheets, distractions that have made the firms more inwardlooking, stress-induced trepidation, or all of the above. Meanwhile, Goddtnan has been open for business, with less balance sheet constraints, and a less shellshocked attitude. Goldman believes, based on client comments and the order flow it

28 July 2 t 0 s

Goldman Sachs Group
is seeing, that it is considerably more engaged as a markel-maker than most of its key competitors. Macro areas such as rate products and $F X$ have been very busy, though the mortgage markel remains moribund

Even in Prime Brokerage, a business in which $\mathbb{G}$ S has disproportianate share, it has been seeing gains because of the fate of Bear and the growing sensitivity ainong clieuts to counterparty risk. Vie would expect that, with the BSC business in the safe hands of JP Morgan: plenty of that business will find its way back; but it doesn't seem to be happening quickly. As an aside, GS made it clear ihal it would be careful about taking up stock-borrow rates in the context of the changed SEC shorling regs, since it wants to avoid the appearance of beinc inappropriately opporturistic.

Confident they can "out-earn" the '02 cyclical bottom Although conditions have weakened cyclicaliy, GS continues to befieve that il is most likely able to out-earn its ROE at the last cyclical bottom, 2002, because of the greater diversity of its business mix by geography and business lines, as well as discernible improvement in relative market position / share, and improving spreads due to greater scarchly value of commitled risk capital. This does riol mean we can rule out the possibility of a weak quarter or two along the way tive have certainly seen this a couple of times, but it has not been sustained).

## Crisis has reinforced GS' key tenets

What did GS learn from the credit crisis? Mostly a reinforcement of things it had always clung to.
: Liquidity is king. GS always said so, but the recent crisis confimed it. Two words sum up the thoughts with regard to access to cashl funding: "More". and "Longer" Goldman paid up over the last few years to term out its funding, and looks smart to have done so.

F Nothing new ever happers until if happers. Destruction lurks in the tails of the distribution; because unexpectedly extreme outcomes can and do happen, sceлario-test creatively and size positions appropriately.
$\because$ Size mattefs. Having a largo, broad, highly diversificed franchise adds an itmportant degree of robusthess.

- Discipline is tritical: Making commitments to serve clients or build pipelines of assets for distribution is the heart of many parts of the business, but allowing the assets to build up on the balance sheet can be deadly. Having the discipline to distribute the assets quickly, and slow down origination when the market is signaling faltering appetite, is essential.
* Risk management must be respocted and independent; communication is essential: Senior management needs to be highly focused on risk and how it is changing as markets deteriorate. To do this, it needs realtime infomation, which means excellent risk-modeling systems and capabilities but also a limely, open communication flow with a completely independent risk organization, as well as with trading desks. And, within the firm, the risk managers need to have comparable stature to the revenue producers.

Goldman Sachs Group

Goldman Sachs Bank \& Trust? Don't rule it out
Since GS is more convinced than ever that its longstanding liquidity obsession is well-founded, it would appear this thought process has prompled a willingness to al least consider a bank acquisition. The opportunity could concelvably arise as a result of the damage done to some institutions and the fact that valuable, "sticky" deposit franchises may be available at attractive prices. Viniar noted that the firm had done extensive analysis on the degree to which it might be able to deploy excess deposits to fund core businesses; based on the willingness to even consider a transaction. it wauld seem GS has satisfled itself that core activities could conceivably be funded this way.

This said, the company made it clear that such a deal was unlikely to be pursued if it meant that other traditional, allractive $\mathbf{G S}$ businesses could not be continued, Commodities being the obvious example that comes to mind. However, regulators appear to have OK'd JPM's participation in physical Commodities via its acquisition of Bear Stearns, despite ils Bank Holding Company status.

We noled that GS has no experience rumning branch systems or deating with any but the highest-net-worth individuals, and has in the past expressed some irepidation about the potential for reputational and operational risk in massmarkel businesses. It was clear that these issues still give the firm pause, and that a foray into tradilional banking is nol something that would be entered into fightly. On the whole, we would not ascribe a very high probability to GS acquiring a bank of any particularly large size. There is still the hurdie, under new accounting guidelines, that assets acquired would need to be marked to market and this could give rise to a new-capital need. And GS has shown it can manage through extremely trying conditions wilh its business model intact, so it is not forced to change its spots. This said, the bottom line here would appear to be: don't rule out a bank acquisition by GS. These are strange times indeed.

Distressed Mortgages: the next big thing
Although the Morigage arena is weak, as noted, the next major opportunity GS sees is there, not surprisingly. It is likely to develop a range of eamingsgenerating "principaling" opportunities, on trading desks and in its Private Investing area. For the time being the company is not raising a fund to invest in distressed morigage assets: because it does not want the funds burning a hole in its pocket and would prefer to pruceed opportunistically. Nor does it appear to think that institutions holding assets have to date taken all the pain they will need to, meaning that it is probably too early to become heavily involved. The gulf between what potential distressed-riortgage huyers are willing to pay, and where holders have marked the assets, remains too wide. However, at some point, the market will begin to clear, probably as there starts to be greater visibility about when and at what level home prices, and consumer loan delinquency, level off.

When could this be? Hard to see it before early 2009 at the earliest, in our view, and maybe later nexl year, given market expeciations of when home prices could bottom. It seems increasingly clear that a government-sponsored solution like the RTC of the late 1980s is unlikely, and that instead the private-market solution will be the key. Whenever this happens. GS will be ready to bid on significant portfolios, and when the scale of a package exceeds GS' cornfort devel, it expects to be able to round up co-investors quickly given its network of investor relationships. The firm's relative financial strength, and willingness to take principal posilions, are well lelegraphed. so il believes it is already seeing rnost of the potential deal flow, and will continue to da so.

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In order to be prepared for these oppotunities as they arise, GS has beefed up its distressed mortgage capability by bringing on a senior member of the former Bear Stearns leam, Jeff Verchleiser, and by acquring a subprime-mortgage servicer (Litton) earlier this year.

We briefly discussed the degree to which GS has been involved in the capitalraising wave for financial institutions. GS befieves tinat the affected institutions are approaching what might be :ermed the "capitulation" stage of capital-raising, where this is accompanied by actual sates of the assets which created the losses, necessary to convince what is by now reluctart capital to jump in. GS' presence in the advisory and capilal-raising effort will, in our viev, give GS first look into many of the distressed-asset opportunities ahead.

Capital is stronger than GS thinks it needs to be, though accounting changes may lie ahead
Goldman's own capital position is strong, with its newly disclosed iter 1/Risk Weighted Asscts ratio a! 10.8\% as of May 31. It was below those of MS and L.EH ( $12.4 \%$ and $13.5 \%$. respectively) but S doesnt view this as an "arms race" arid in fact views its own core range as $9.5-10 \%$, with around a prercentage point uf excess at this time because of the amount of rervousness in the market. Viniar does not believe there will be appreciable differences between Basel I and Rasel Il ratios for most firms (important because banks, such as JPM, Citi, and B of A are all stitl on Gasel I for the time boing)

We asked about the impact of changes $n$ Fin 16 (R)/fAS 110 which mey require consolidation of securitized assets starting in 2009. In the most draconizn case: G.S believes the impact would be to raise to: al assels by about $\$ 300$ bri. Proforma, this would, we estimate, drop the Tier 1 ratio from $10.8 \%$ now to about $8.5 \%$ (nte simply assumed that the $\$ 300 \mathrm{bn}$ would convert to RWA in the samc ratio as GS' current 1.1 trillion in assets, conven to RWA of $\$ 400$ bin, which may well be too simplistic). In any event. given that the firm continues to generate considerable capital through earnings, and that it does not believe it needs more than around • $0 \%$ Tier 1 , it's not hard to see how any need engendered by the accounting ciange could be manded organically, without the need to raise capital, though buybacks migh; be constrainec for a while longer.

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Gcldmar Sachs Group

28 July 2008

|  | 3067 | 4007 | $4^{\text {Q }} 33$ | 2008 | 3088E | 2016 | 2067 | 2008 E | $2009 E$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenues |  |  |  |  |  |  |  |  |  |
| Commissions | 1,33C | 1,243 | 1.239 | 1,234 | 1.22\% | 3.518 | 4579 | 1.940 | 5.211 |
| Nellinlerest | 1,341 | 725 | 951 | i,277 | 1,100 | 5.438 | 3.967 | 4.328 | 3.700 |
| Trabing | 6,034 | 4,544 | 4,171 | 3,280 | 4,342 | '7.332 | 21,377 | 15.453 | 23,099 |
| InvesImenlsiPrivate Ecuitylderchant Eank | 211 | 1.036 | -532 | 725 | 185 | 2.317 | 3.767 | 678 | 580 |
| Privelpaltionsactions | 6,245 | 5,580 | 4,539 | \%,005 | 11527 | 20,5) | 25:134 | 17.08 | 23,679 |
| Fintraial Advisory | 1.412 | 1,240 | ¢063 | 800 | 675 | 2.580 | 4.222 | 2.838 | 2:61 |
| Underasiting | 733 | 733 | 507 | 885 | 675 | 3.949 | 3.333 | 2.759 | 2.587 |
| Investment Banking | 2.145 | 1,973 | 1,165 | 1,685 | 1,35C | 5,329 | 7,555 | 5,597 | 4,748 |
| Asse! Maragement 8 Fees | 1,148 | 1,165 | 1.317 | 1,164 | 1,274 | 4,234 | 4: \ll $0^{0}$ | 5.044 | 6.005 |
| Other Revenues | 76 | 54 | 24 | 53 | 55 | 233 | 24 ? | 186 | 220 |
| Net Revenues | 12,334 | 10,740 | 8,335 | 9,4z2 | 9,523 | 37,580 | 45,987 | 37,173 | 43,563 |
| Nict Trading Revonucs | 7.375 | E. 266 | 5. 122 | 4,56/ | 5.442 | 10.540 | 25.364 | 20.781 | 28.799 |
| EXPENSES |  |  |  |  |  |  |  |  |  |
| Comp/ive Revalues | S80\% | 30.5\% | 48.6\% | 48.0\% | 48.0\% | 42.0\% | 43.9\% | 45.9\% | 45.0\% |
| Compensation \& Bencits | 6,920 | 3,272 | \$. 901 | 4,522 | 4,571 | -6,457 | 23, 190 | 17.045 | 19.603 |
| Ocmmunicalichst ${ }^{\text {Perenology }}$ | 169 | 184 | ${ }^{\text {c }} 8$ | 192 | 206 | 544 | 665 | 789 | 8:3 |
| Oficis'Equip./Defr./ Amor:. | 363 | 550 | 405 | 417 | 435 | , 3/1 | 4599 | 1.708 | 1,770 |
| P-otess oral Serices ( 1 ) | 539 | 688 | 58. | 555 | 55 C | '.814 | 2.122 | 2,235 | 2.347 |
| Ajuenisingt Businoss Development | 148 | 177 | '44 | 126 | 13 C | 492 | 60. | 576 | 587 |
| B:okerage, Clearing \& Excharge Fees | 795 | 774 | 793 | 741 | 756 | -.348 | 2,758 | 305 E | 3,224 |
| Cost of Power Soneration | 88 | a | 3 | ก | f. | 4.76 | 2.53 | c | 10 |
| artanglbles Aimortizabor | 53 | $4{ }^{4}$ | 4 | 37 | 45 | 173 | 195 | 21. | $2: 5$ |
| Non-Compersation Experlse | 2.135 | 2.414 | 2.191 | 2,068 | 2.110 | 6,648 | B. 493 | 8,414 | 8. 362 |
| Total Operating Expenses | 8,075 | 5,685 | 6,192 | 6,590 | 6,681 | 23,105 | 28,383 | 25,673 | 28,565 |
| Income <Less) Ecfore inc. Taxes a Other | 4.259 | 5,054 | 2.143 | 2.832 | 2,842 | -4,575 | 17,604 | 11.550 | 14.998 |
| Income iaxes ( (enait) | 1.105 | 1,440 | 632 | 7.45 | 859 | 5,023 | 5.005 | 3.3.18 | 5,129 |
| Tax Rate | $330 \%$ | 36.4\% | 29.6\% | 20.3\% | 36\% | $345 \%$ | $34 \%$ | 290\% | 34.2\% |
| NET INCOME (LOSS) | 2.854 | 3.214 | 1,511 | 2,087 | 1,998 | §.532 | 1.599 | 5.202 | 9,369 |
| INCOME FOR COMMON | 2.806 | 3,165 | 1.467 | 2.051 | 1,95¢ | ¢,413 | 1, 4,07 | 3.042 | 9.692 |
| Average Shams |  |  |  |  |  |  |  |  |  |
| Basic | 429.C | 427.9 | 432.5 | 427.5 | 4.77 .5 | $46^{\circ} .7$ | 433. | $426 . \mathrm{C}$ | $435 . ?$ |
| Diluted | 457.4 | 451.7 | $4{ }^{4} 5.5$ | 447.4 | 459.6 | 477.4 | $4 \mathrm{G1}$. | 454.2 | 405.4 |
| EARanNGS PER SHARE |  |  |  |  |  |  |  |  |  |
| Basic | 56.54 | \$7.48 | \$5.73 | \$4.80 | \$4.56 | 52c. 34 | 526.34 | \$18.88 | \$22.23 |
| Dilcted | S6.12 | \$. 01 | Sc. 33 | \$4.58 | S4.28 | \$.c.7? | S24.73 | \$17.7* | \$ $¢$ C. 9 ? |

28 July 2c08

## Price objective basis $\&$ risk

Gaidman Sachs (GS)
We believe GS shares are appropriately valued at about $1.9 \times$ given expectations of $18 \%+$ ROE through ' DSE . This suggests a PO of $\$ 212$ when applied to 2Q09E book value (with $5 \%$ discount to account for substarlial near-term uncertainty). Risks to price objective: Earnings volatility remains an undeniable part of the GSs business: with GS registering ROE from low teens in trough conditions to high 30 s in a peak market environment. Revenues can be very lurpy and subject to global markel disruptions. In addition. GS derives a high proportion of revenue from trading and market-making activities. As with most brokers, GSs business is very balance-sheet intensive and employs high leverage. While one source of $G S$ ROE advantage is that it is good at spotting value, pricing illiquid assets. and taking risk, this means GS holds sizeable balances of illiquid securities subjech to negative valuation adjustments. Going forward, investmerit banks and their fevorage ratios will likely face greater gov't scrutiny that could hinder returns in peak market environments, particularly if the Fed gains permanent oversight of ieverage. More opaque, structured products are an important component of profitability at strong points in the cycle and wil probably be out of favor for some time following the mortgage debacle and crecit crunch. though we do root believe securitization will be permariently impaired.

## Ois Marrill Lyneh

28 July 2008

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## Analyst Certification

I, Guy Moszkowski, CFA, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly. related to the specific recommendationts or view expressed in this research report.

US-Mega Banks, Brokers and Asset Managers Coverage Cluster


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ionerethed" Measures Defiritions

\begin{tabular}{|c|c|c|}
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\hline \multirow[t]{2}{*}{Return On Capilal Errilloyer'} \&  \&  <br>
\hline \& Astorizalion \& Amertization <br>
\hline Retum On Equity \& Nel Inctre \& Shateheljers' Equily <br>
\hline Opersting Márgin \& Operatirs Proft \& Sales <br>
\hline Earrining Erreut \& Exjuc:ec 5-` ear CAGR Frum Latest Ambal \& $\mathrm{N} / \mathrm{A}$ <br>
\hline Fies Cash Flow \& Cash Flow From Ozerations - Total Cayex \& Nitis <br>
\hline \multicolumn{3}{|l|}{Quality of Earnings} <br>
\hline Cash Realizat on Ratio \& Fash Flay =ram 0:erations \& Nest Ir crame <br>
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\hline Ev? \& Enterriso Velue \& Bâsic EBI' + Deprecation + imcrization <br>

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* Ratings dispetsions may vory from lime to time where Merill Lynch Rezearch believes theterr rellects the investment orospects of stocks n a Coverage Clester.

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## UNITED STATES



GS US vs S\&P 500, \& rec history


Note: Recommendation timeline - if not a continuous line, then there was no Note: Recommendation timeline - if not a continuous line, then there
Macquarie coverage at the time or there was an embargo period. Source: FactSet, Macquarie Capital (USA), April 2010 (all figures in USD unless noted)


[^0]19 April 2010

# Goldman Sachs Group <br> <br> Our Thoughts on the SEC's Fraud Claim 

 <br> <br> Our Thoughts on the SEC's Fraud Claim}

## Event

- On Friday, the SEC accused Goldman of fraud associated with a synthetic CDO. We believe equity investors (GS fell 13\%), the media, Washington and many others rushed to judgement. GS appears blind-sided by the claim and has issued its side of the story, creating what we see as some doubt about the SEC's logic.


## Impact

- After reviewing the allegations and Goldman's response, we are not yet willing to assign probabilities on the chance of a conviction. Proof of intent to deceive is key, and we are not convinced that the emails establish this. Also key is what the original long investors knew or didn't know about the selection process.
- Normally, firms settle with the SEC to avoid the risk of losing in court, which would tee-up huge class-action wins. However, in this case, the losses only total $\$ 1 \mathrm{bn}$. Typically, reputational damage, particularly in the institutional context, is a paper tiger. However, in this case, the response by the media and Washington has been so severe, that we believe management will want their day in court to prove the firm's innocence. As a result, we may not see the typical settlement but a trial.
- As for the direct financial impact, the worst-case scenario is probably $\$ 1.10 /$ sh or $6 \%$ of our 2010 estimate while there were no material expectations for synthetic CDO revenue in forward estimates. As for reputation, Goldman clients are "eyes-wide-open".
- The bigger issue may be the role a mortgage-related fraud claim would have on the financial reform process. On one hand, synthetic CDOs had no role in the housing bubble, since they do not create incremental demand for mortgages but are based on existing product. On the other hand, it could be another example of the CDS markets serving as a tool for manipulative schemes (many believe that certain investors sold short shares of Bear, Lehman, Merrill, et al and drove them down via a combination of CDS market manipulation and oral fear-mongering).
- As for read-across, the SEC is apparently looking for similar allegedly concocted selection arrangements set up by other firms. We doubt the SEC will be willing (mkts confidence) and able (manpower, time) to bring many more of these cases.


## Earnings and target price revision

- We expect limited impact to operating EPS at the moment.


## Price catalyst

- 12-month price target: US $\$ 185.00$ based on a Price to Book methodology.Catalyst: Quarterly Earnings.


## Action and recommendation

- Legal/regulatory trouble often results in short-term pressure, setting up the stock for a sharp recovery upon resolution (see Merrill/Spitzer late-'02-mid-'03). For now, GS is not yet cheap enough and the overhang period is just getting started.


#### Abstract

Valuation \& Risks After recovering from the November 2008 abyss, GS now trades at $1.5 \times \mathrm{TBV}$ of $\$ 108$ and $1.4 \times \mathrm{BV}$ of $\$ 117$. Goldman has only been public for a decade, or just two full boom-bust cycles, thus we can not reliably cite these multiples as low or high. On the other hand, GS trades at about $8.4 \times$ our 2011E, which is about normal for full-service firms through a longer historical trading pattern. Our price target is $\$ 185$, based on $9.6 \times$ our 2011 EPS estimate. Goldman relies heavily on principal-driven activities, which naturally create direct risks. Bid-ask spreads in fixed income are the primary factor in short-term earnings, as even a sharp rebound in investment banking could not offset the effects of narrowing.


| (\%met) | 1009 | SEai | 2009 | stan | 3009 | stab | 4009 | SE6S | FY09 | SEQA | 1910 E | stas | 2010 E | SFou | $3010 E$ | sfas | 2010E | SFOA | FYOE | 3E94 | FYTE | SE94. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Recruras |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Inveement Sanking | \% 815 | -20\% | S 1.440 | ${ }_{5}^{7 \%}$ | ${ }^{889}$ | ${ }^{33 \%}$ | ${ }_{1}^{1.935}$ | ${ }^{87 \%} 8$ | . 4.797 |  | ${ }^{1.054}$ |  | 59.434 | 36\% 5 | 1,374 |  | 5 1.399 | $2 \%$ | . 5.252 | 9\% | + 5.253 | ${ }^{088}$ |
|  | ${ }^{7} 1.150$ |  | ${ }^{10,784}$ | 51\% | 10.027 | -7\% | ${ }_{\text {c }}^{6,412}$ | ${ }^{-38 \%}$ | 3,373 |  | $\xrightarrow{1789}$ | 21\% | 8.443 | $9 \%$ | ${ }^{8.0683}$ |  | 7.980 | . $\%$ | 32.275 | .64 | 27,200 | -16\% |
| Assel maravenent'a securies serices | 1.452 | 17\% | 1.537 | ${ }^{\text {6\% }}$ | 1,446 | 6\% | 1.558 | 88 | ${ }_{6} 6.003$ | -25\% | 1,507 | - $\%$ | 1,562 | \% | 1.544 | -\% | 1,698 | 10\% | 6.311 | 5* | ${ }^{6.690}$ | 6\% |
| Net Rewemus |  |  | 13.761 | 46\% | 12,372 | 10\% | 9,615 | 22\% | 45.173 | 1035 | 10,330 | 7\% | 11,439 | 11\% | 10,998 | -4\% | 11,071 | * | 4, 2388 | 3* | 39,143 | -11\% |
| Cractisa |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Compensation | 4.712 |  | 8.649 | 4\% | 5.351 | -20\% |  | ${ }^{190 \%}$ |  | 48* | 4.855 |  | \$ 5.376 | 11\% 5 | 55.059 |  | 54.096 | -996 |  |  | s 17,198 | -11* |
| Anot. © APO/ACg, Awards | 336 |  | 574 |  | 580 |  | $\stackrel{\dot{S 08}}{ }$ |  | ${ }^{2.2898}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Manke fevelommen | ${ }^{88}$ | -29\% | 82 | ${ }_{21 \%}$ | 84 | 2\% | 100 | 29\% | ${ }_{\substack{342}}^{2.298}$ | -29\% |  | -18\% | ${ }_{91}$ | ${ }_{36}^{2 \%}$ | ${ }_{93}$ | ${ }_{2 \%}^{2 \%}$ | ${ }_{84} 8$ | -10\% | ${ }^{2} 2.257$ | 4* | ${ }_{374}$ |  |
| Communiaations mid tecen | ${ }_{511}^{173}$ | 2\% | ${ }_{46}^{173}$ | $\underset{-17 \%}{\text { ¢\% }}$ | ${ }_{367}^{194}$ | -14\% | ${ }_{362}^{189}$ | ${ }^{-13 \%}$ | 1.699 | -76\% | ¢ 1872 | ${ }_{-5 \%}^{\text {\% }}$ | ${ }_{372}^{171}$ | ${ }_{0 \%}^{1 \%}$ | ${ }^{179}$ | \%\% | $\begin{aligned} & 179 \\ & 372 \end{aligned}$ | ${ }_{0 \%}^{0 \%}$ | - 6.498 | . $212 \%$ | - $\begin{array}{r}\text { 5,399 }\end{array}$ | - 208 |
|  | 38 | .46\% |  | . $100 \%$ |  |  |  |  |  | .04* |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ${ }_{135}^{241}$ | . 580 | ${ }_{506}^{24}$ | 39\%\% | ${ }_{72}^{230}$ | ${ }_{32 \%} 5$ | ${ }_{1,243}^{237}$ | ${ }_{61 \%}{ }^{3 \%}$ | ${ }_{2.735}^{0.950}$ | - 4.14 | $\begin{aligned} & 237 \\ & 766 \end{aligned}$ | 10\% | $\begin{aligned} & 237 \\ & 727 \end{aligned}$ | 3\% | ${ }_{702}^{237}$ | ${ }_{-9 \%}{ }^{10}$ | $\begin{aligned} & 230 \\ & 723 \end{aligned}$ | $-3 \%$ | ${ }_{2} 984$ | ${ }^{\text {+7\% }} \times$ | ${ }_{274}^{\text {294 }}$ | -5\% |
| Pomer geerealion coss (uxto 1009) | 382 | . $24 \%$ |  | -100\% |  |  |  |  | ${ }_{3} 3$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Non-Comp Expenses <br> Total Operaing Expentes | $\begin{aligned} & 2,081 \\ & 8,796 \end{aligned}$ | $\begin{aligned} & -77 \% \\ & 236 \% \end{aligned}$ | $\begin{aligned} & 2,0,0 \\ & 0,732 \end{aligned}$ | $26 \%$ | $\begin{aligned} & 2727 \\ & 7,589 \end{aligned}$ | $\begin{aligned} & -793 \\ & -139 \end{aligned}$ | $\begin{aligned} & 27575 \\ & 2,238 \end{aligned}$ | $\begin{gathered} 246 \\ -\gg 05 \end{gathered}$ | $\begin{aligned} & 9,151 \\ & 25,34 \end{aligned}$ | $\begin{gathered} 2 \times 0 \\ 2 \times 0 \end{gathered}$ | $\begin{aligned} & 2,180 \\ & 7,0,015 \end{aligned}$ | $\begin{aligned} & -22 \% \\ & 2+3 \% \end{aligned}$ | $\begin{aligned} & 2,153 \\ & 7,599 \end{aligned}$ | $\begin{aligned} & \text { ow } \\ & 7 \% \end{aligned}$ | $\begin{aligned} & 2,153 \\ & \hline, 25 \end{aligned}$ | $\begin{aligned} & 0 \% \\ & -14 \\ & \hline \end{aligned}$ | $\begin{aligned} & 21,165 \\ & 6,255 \end{aligned}$ | -136 | $\begin{gathered} 8.654 \\ 20,024 \end{gathered}$ | 110 | 24,320 | -110\% |
| Pro.Tex Income | 2,629 |  | 5,029 | 9\%\% | 4,794 | .5\% | 7,377 | 54\% | 19,229 | 7794 | 2,315 | 65\% | 3,910 | ${ }_{18 \%}$ | 3,788 | -3\% | 4.306 | 274 | 15,817 | 20\% | 14,223 | -1004 |
| Prookison for taxes | 815 |  | ${ }^{1.594}$ | 26\% | 1.008 | \% | 2.129 | 518 | ${ }^{6.144}$ | 459794 | 1.681 |  | 1.251 | 18\% | 1.212 | ${ }^{3 \%}$ | ${ }^{1.538}$ | 27\% |  | -218 |  |  |
| Pretered Dividonis | 155 | -7\% | 717 | 363\% | 160 | -78\% | 161 | $1 \%$ | 1.193 |  | 161 | 0\% | 161 | 0\% | 161 | ¢ | 161 | $0 \%$ | 644 |  | 640 | 1* |
| Nax aunings (0AMP) | 1,659 |  | 2.718 | \% | 3,028 | 1\% | 4,747 | 59\% | 12,192 | 477\% | 2,993 | -56\% | 2,4 | 19\% | 2,14 | -3\% | 3,407 | 29\% | 10,112 | .17\% | 9,031 | -11 |
| Now eamings (operaling) | 5 1,659 |  | \$ 3,79 | 92\% | 3,028 | 5\% 5 | 4,707 | $50 \%$ | : 12.192 | 4974 | 2,093 | .58\% | \% 2198 | 19\% | 2,414 | .3\% | \$ 1.107 | 29\% | \$ 10.112 | .17x | 5 9,031 | -11\% |
| poems (GAMP) | 83.19 |  | $\mu .93$ | 45\% | 35.23 |  | 59.20 | 56\% | \$ 21.97 |  | 43.55 |  | \$1.24 | 20\% | S. 14 | .2\% | \$5.39 | 306 | 517.33 |  | 519.32 |  |
| FDEPS ( 0 Pewating) | 83.39 |  | 55.7 | 70\% | ${ }_{55} 5.25$ | \% | 58.20 | 56\% | \$ 22.85 | $401 \times$ | ${ }^{33} .65$ | -57\% | 4.24 | 20\% | \$5.14 | - \% | 55.39 | 30\% | 517.33 | -238 | 518.32 | 12* |
| avg. FD Stimes | 499 | 5\% | 551 | 13\% | 577 | 5\% | 304 | 18 | 550 | 22\% | 590 | 1\% | 508 | ${ }^{0 \%}$ | 582 | -1\% | 579 | .1\% | 54. | 6* | 467 | -20* |
| Didcend | 50.35 | \% | \$0.35 | \% | 5,35 | $0 \%$ | 0.35 | 0\% | 1.40 |  | \$0.35 | ** | 50.35 | 0\% | \$0.35 | 0\% | \$0.35 | $0 \%$ | 1.40 | os | 1.40 |  |
| Comp Rayo | 50.0\% |  | 483.3\% |  | ${ }^{43} 37$ |  | -5.4\% |  | ${ }^{35.9 \%}$ |  | 47.0\% |  | 47.06 |  | 46.0\% |  | 37,0\% |  |  |  | 43.9\% |  |
| ( $\begin{aligned} & \text { Nen-Comp Ratlo } \\ & \text { PTom }\end{aligned}$ | ${ }_{\text {22, }}^{22.17 \%}$ |  | 14.9\% |  | ${ }_{39.0 \%}^{17.7 \%}$ |  | ${ }_{\text {cher }}^{\text {20.7\% }}$ |  | ${ }_{\text {20, }}^{\text {20,3\% }}$ |  | 20.9\% |  | - $10.8 \%$ |  | 19.6\% |  | 19.6\% |  | 197\% $36.1 \%$ |  | 19.7\% |  |
| Enect. Tax Rate | 31.0\% |  | 31.7\% |  | 33.5\% |  | 32.9\% |  | 32.5\% |  | 32.04 |  | 32.0\% |  | 32.0\% |  | 320\% |  | 32.0\% |  | 32.0\% |  |
| amat sim |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ROE (GMP) |  |  |  |  |  |  |  |  | 1.7\% |  | 130\% |  | 55.14 |  | 14.14 |  | 77.5\% |  | 6.5\% |  | 13.5\% |  |
| Eop book Valu Pus shas | \$98.92 |  | \$10.41 |  | 111.27 |  | 117.48 |  | \$ 15.48 |  | \$120.48 |  | \$12.12 |  | \$127.37 |  | \$13224 |  | \$ 13224 |  | \% 138.23 |  |

## Recommendation definitions

Macquarie - Australia/New Zealand
Outperform - retum $>5 \%$ in excess of benchmark return
Neutral - return within $5 \%$ of benchmark return
Underperform - return >5\% below benchmark retum
Macquarie - Asia/Europe
Outperform - expected return $>+10 \%$
Neutral - expected retum from $-10 \%$ to $+10 \%$
Underperform - expecied return <-10\%
Macquarie First South - South Africa
Outperform - expected return $>+10 \%$
Neutral - expected retum from-10\% $50+10 \%$
Underperform - expected return <-10\%

## Macquarie - Canada

Outperform - return $>5 \%$ in excess of benchmark return
Neutral - return within $5 \%$ of benchmark relurn
Underperform - return $>5 \%$ below benchmark retum
Macquarie - USA
Outperform (Buy) - return $35 \%$ in excess of Russell 3000
index return
Neutral (Hald) - retum within $5 \%$ of Russell 3000 index
return
Underperform (Sell)- return $>5 \%$ below Russe:| 3000
index return
Recommendations - 12 months
Note: Quant recommendations may differ from
Fundamental Analyst recommendations

## Volatility index definition*

This is calculated from the volatility of historical price movements.

Very high-highest risk - Stock should be expected to move up or down $60-100 \%$ in a year - investors should be aware this stock is highly speculative.

High - stock should be expected to mave up or down at least $40-60 \%$ in a year - investors should be aware this stock could be speculative

Medium - stock should be expected to move up or down at least 30-40\% in a year

Low-medium - stock should be expected to move up or down at least 25-30\% in a year.

Low - stock should be expected to move up or
down at least $15-25 \%$ in a year.

- Applicabie to Australian/NZfCanada stocks only


## Financlal definitions

All "Adjusted" data items have had the following adjustments made:
Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives $\&$ hedging, IFRS impaiments \& IFRS interest expense
Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends 8 minority interests

EPS = adjusted net profil / efpowa*
ROA = adjusted ebit $/$ average total assets
ROA Banks/Insurance = adjusted net profit laverage total assets
ROE = adjusled net profit / average shareholders funds
Gross cashflow = adjusted net profit + depreciation equivalent fully paid ordinary weighted average number of shanes

All Reported numbers for Australian/NZ listed stocks are modelted under IFRS (International Financial Reporting Standards)

| Recommendation proportions - For quarter ending 31 March 2010 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | AU/NZ | Asia | RSA | USA | CA | EUR |  |
| Outperform | 50.55\% | 62.20\% | 42.25\% | 42.39\% | 62.16\% | 46.74\% | (for US coverage by MCUSA, 8.53\% of stocks covered are lnvestment banking clients) |
| Neutral | 36.63\% | 19.02\% | 47.89\% | 50.35\% | 31.89\% | $34.78 \%$ | (for US coverage by MCUSA, $9.82 \%$ of stocks covered are investment banking clients) |
| Underperform | 12.82\% | 18.78\% | 9.86\% | 7.27\% | 5.95\% | 10.48\% | (for US coverage by MCUSA, $0.00 \%$ of stocks covered are investment banking clients) |

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## Equity Research

## The Goldman Sachs Group, Inc.

GS: Reputational Risks Increased, But Valuation Still Attractive

- We are maintaining our Outperform recommendation on GS. We are maintaining our Outperform recommendation on GS in the wake of the SEC's civil lawsuit (filed April 16) due to: 1) manageable financial impact if GS loses the case - we estimate the cost would be about $\$ 1.18,6 \%$ of our expected 2011 EPS; 2) GS' share price decline ( $13 \%$ on $4 / 16$ vs S\&P500 decline of $1.6 \%$ ) appears outsized relative to the "likely worst case" financial cost, suggesting attractive return potential vs. its peers, 3) the possibility the case may be settled at a materially lower cost to GS in the nearer-term (by the end of 2011) given our expectations of a vigorous defense of its position, and 4) our belief that GS' business opportunities will not suffer meaningful detriment from the lawsuit. We have not adjusted our EPS estimates for 2010 or 2011.
- GS has begun to tell its side of the story, possibility reducing the concerns surrounding the SEC's allegations. Following the SEC's filing of its lawsuit, GS has issued public documents detailing its belief that its actions with respect to the ABACUS 2007-AC1 synthetic CDO were "entirely appropriate", and that it intends to defend itself vigorously. We believe GS' strong stance could be successful in reducing the fear surrounding the SEC's allegations - and also starts to rebuild the reputational damage from the recent headlines.
- Headline risk returns with a vengeance for the large cap banks, likely dampening investors enthusiasm for the near-term. The SEC's highly publicized legal action against GS is likely to make investors concerned that other underwriters of structured or complex securities could also face legal and headline risk. This is likely to dampen investor enthusiasm for the large-cap banks in the near-term, particularly those with material capital markets contributions to net income.
- The lawsuit could also result in more stringent financial services reform legislation, in our view. While the allegations against GS do not require additional regulation (fraudulent activity is already illegal), we believe those seeking greater regulation of the financial services sector - and the largest most diversified banks in particular - could use the SEC's allegations as a catalyst for more stringent regulation of the banks and capital markets activities. This could have a negative effect on future revenue generation capabilities for these institutions.


## Valuation Range: \$205.00 to \$215.00

Our valuation range represents a $1.6 \mathrm{x}-1.7 \mathrm{x}$ price-to-tangible book multiple on our 2010 book value estimate of $\$ 128$. Risks to achieving our valuation range include further deterioration in legacy assets, trading losses, the advent of more stringent government regulation, employee defections, and the extension of a challenged economic environment.

## Investment Thesis:

GS's reduced competition, minimal consumer exposure, and superior risk control should allow the company to drive above average profit growth in the current uncertain environment, thereby resulting in premium valuation over time.

Please see page 5 for rating definitions, important disclosures and required analyst certifications
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## Outperform / V



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## Company Description:

The Goldman Sachs Group, Inc. is a leading global banking, securities and investment management firm that provides a wide range of services worldwide to a substantial and diversified client base that includes corporations, financial institutions, governments and high-net-worth individuals.

Valuation remains attractive for the intermediate to longer-term, in our view; maintaining our Outperform rating on GS shares. The drop in GS' share price on April 16 leaves it at an attractive level, in our opinion.

1) Our valuation range ( $\$ 205-\$ 215$ ) is $1.6 x-1.7 x$ our estimated FYE 2010E tangible book value, a level well below GS' historical average allowing for a reduced multiple in the future as a result of greater regulation;
2) Our current valuation range based on our price/TBV multiple allows a $28 \%-34 \%$ upside from its current level;
3) GS currently trades at a price/normalized earnings ratio of 5.1 x , a level less than half of the regional banks in our coverage universe.

While headline risk is likely to keep GS share price from outperforming in the near-term, we believe the market will come to better appreciate the manageable financial and reputational risks GS faces as well as the benefit of greater clarity on financial services regulatory reform. We believe this should allow GS to outperform its peers in the intermediate to long term. As a result, we have maintained our Outperform rating on GS shares.

Leading up to April 16, bank share price performance had been well ahead of the broader market indices. Given the rally in bank shares over the month from March 15 through April 15, our large cap bank coverage universe enjoyed an average share price improvement of $11 \%$ (an annualized return of approximately 128\%). While outperforming the S\&P 500 by 540 basis points, our coverage universe trailed the BKX Index by 150 bps.

Exhibit 1: Wells Fargo Securities LLC Large Cap Bank Recent Share Price Performance, 3/15-4/15 versus 4/16


SEC's civil lawsuit against Goldman Sachs proved the catalyst for a sector-wide sell off on April 16, in our view. On April 16, however, our coverage universe fell by an average of $5.1 \%$, underperforming both the BKX and the S\&P 500. Leading the group lower was Goldman Sachs, who was the subject of a civil lawsuit announced by the SEC in the morning of April 16. The news gave investors a reason to reduce exposure to bank stocks - at least ahead of the weekend and the bulk of bank earnings announcements expected the week of April 19 - for the near-term while the fallout of the GS lawsuit and pending bank regulatory reform are better understood.

Financial risk appears manageable ( $6 \%$ of our 2011E EPS estimate of $\$ 19.45$ ) and unlikely to occur in the near-term. Obviously, the primary risk for GS in this specific lawsuit is the risk it may lose the case. If this occurs, we believe the worst-case scenario for GS would be approximately $\$ 1.03 \mathrm{~B}$ : the return of the $\$ 15 \mathrm{MM}$ in structuring fees received from the transaction, the return of other revenue GS received from transactions related to the CDO (which we estimate at $\$ 10 \mathrm{MM}$, which we believe is conservative) plus potential
restitution (in the form of fines) of the $\$ 1,0$ billion that the SEC estimates investors lost on their investments in the transaction. Assuming that such a payment is tax deductible, we estimate this could reduce GS' net income by $\$ 677 \mathrm{MM}$, or approximately $\$ 1.18$ per share using our estimated 2011 estimated weighted average share count of 573 MM shares. Given the length of a typical court case. we estimate that the cost would be unlikely to hit GS' results until at 2012 at the earliest.

GS issued a multi-part statement mounting its initial defense against the SEC's allegations willing to go the distance to clear its name. $6 S$ released a document April 18 stating its position on the SEC's lawsuit, clarifying comments made in the aftermath of the SEC's announcement of the lawsuit. In sum, we believe GS' contentions suggest it is willing to take its chance in court, if necessary, to clear its name and attempt to revive its reputation. In its release, GS contends:

1) the fact that $G S$ lost money (approximately $\$ 90 \mathrm{MM}$ by its count) suggests it did not intend to structure an instrument for the purposes of losing money for investors - of which GS was one;
2) GS noted that the two large investors (IKB and ACA Capital Management) were "provided extensive information" about the static pool of approximately 90 securities and that as "among the most sophisticated mortgage investors in the world, they understood that a synthetic CDO transaction requires a short interest for every corresponding long position."
3) As a market maker, GS did not disclose the name of the investor taking the short position to ACA as a part of normal business practice.
4) ACA's position as the largest investor in the security argues that they "had every incentive to select appropriate securities", and use their own models and analysis to choose every security in the collateral pool. As part of the transaction, GS said that ACA had discussions with IKB and Paulson and Co. about the collateral pool. According to GS, "ACA rejected numerous securities suggested by Paulson \& Co., including more than half of its initial suggestions, and was paid a fee for its role as portfolio selection agent in analyzing and approving the underlying reference portfolio." According to the SEC's complaint, Paulson picked 123 securities for inclusion into the CDO, of which ACA approved 55 .
5) GS noted that this transaction has been under investigation by the SEC for eighteen months (and Reuters said GS had received a Wells Notice six months ago). GS believes the firm's actions "were entirely appropriate" and expects to "take all steps necessary to defend the firm and its reputation by making all the true facts known."

It seems unlikely clients will stop doing business with GS if SEC's suit is not the precursor to other GS-specific legal actions. The SEC's action could lead potential clients seek counterparties and agents other than GS as a means of protesting GS' alleged behavior. We do not consider this a material threat in the long-rum, however, due to the following factors: 1) GS has long-held a reputation as a shrewd counterparty and advisor: 2) if clients feel GS has become somewhat chastened by the recent public scrutiny, some clients may believe that could work to their own advantage. We believe that if GS is not implicated in other, similar legal actions the "reputational damage" is manageable. Additional legal actions against the company could further harm its reputation and ability to gain business, in our view.

Charges have not been brought against senior GS management; if a senior executive leaves, we do not believe GS would be materially affected. In its complaint, the SEC has not charged any of GS senior management. Instead the complaint charged then-vice president Fabrice Tourre with fraudulent behavior in marketing the security. We believe that the lack of a senior GS official in the SEC's complaint suggests that it does not believe that GS' procedures and policies were improper, but the actions of selected employees. It also suggests the likelihood of a criminal suit against GS is not high, in our opinion. Nevertheless, we note that the financial crisis of the past two years has resulted in several CEOs relinquishing their seats. Though we believe Lloyd Blankfein and his senior management team continue to receive the support of the company's boards, we cannot completely rule out that a senior executive could leave the firm as a result of the SEC's case. If that were to occur, however, we believe GS' "management bench" is of impressive depth and high quality so that the company would be unlikely to face material negative consequences from such a scenario.

The SEC's lawsuit could embolden other regulators (and investors) to seek legal action against GS. We believe the nature of the SEC's lawsuit against GS in the current political environment across the globe could result in additional legal actions being taken against GS by other regulators. Over the weekend, Bloomberg News reported that both the U.K.'s Financial Service Authority (FSA) and Germany's financial regulator hove both been asked by their respective heads of state io review the SEC's complaint for possible legal action related to this transaction. $G S$ is currently under investigation by the European Union for currency swaps it sold to Greece.

We expect lawmakers will use the allegations against GS as a means to push regulatory reform. At a time of widespread voter disenchantment with the banking system and the largest capital markets focused banks in particular, we believe politicians on both sides of the aisle are likely to attempt to use the SEC's allegations as a means for supporting more aggressive regulatory reform. However, if the SEC's allegations are proven correct, effectively they have proven GS mislead investors - such behavior has long been unlawful.

Exhibit 1: Global CDO Issuance, Investment Grade Bond
Collateral - FY 2000-Q1 2010


Source: Thomson Reuters, SIFMA, Wells Fargo Securities, LLC
A reinvigorated "cop on the beat": SEC's action also sends a message to the Street - and investors - that additional legal actions may be announced. The SEC noted it expects to investigate other transactions, which could result in legal actions against other banks. In his comments to reporters following the filing of the SEC's complaint, Robert Khuzami - the newly named director of enforcement suggested that the agency is looking at a broad range of transactions. We believe this comment suggested to the market that other capital markets participants could face future "headline" and legal risk from legal actions taken by the SEC. We believe this could include any of the major global investment banks as the SEC has made it clear from its legal action against GS that it is willing to take on any of the major firms if it believes a case has merit.

The broader the SEC casts its net, the less idiosyncratic reputational risk, in our view, but increases the risk of greater regulatory oversight. Interestingly, the broader the SEC's investigations and legal actions become, the less impactful on the reputation of any given firm they may be. Though such a course of action would be likely to maintain public (and possibly investor) perception at extremely low levels, dispersion of legal headline risk could reduce the negative effects on any specific firm. Still, it would also likely result in more aggressive regulatory oversight of the business, which could impede future profit growth.

## Required Disclosures



|  | Date | Publication Price (\$) | Rating Code | Val. Rng. Low | Val. Rng. High | Close Price ( $\$$ ) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4/1712007 |  | Sipkin |  |  |  |
|  | 4/17/12007 | NA | 1 | 215.00 | 220.00 | 214.90 |
| - | 6/7/2007 | NA | 1 | 250.00 | 255.00 | 220.05 |
| - | 9/11/2007 | 183.61 | 1 | 202.00 | 205.00 | 183.50 |
| - | 9/20/2007 | 203.53 | 1 | 228.00 | 233.00 | 203.53 |
| V | 11/8/2007 | 214.18 | 2 | 228.00 | 233.00 | 209.94 |
| - | 12/18/2007 | 202.16 | 2 | 205.00 | 210.00 | 201.51 |
| A 0 | 3/18/2008 | 151.02 | 1 | 180.00 | 185.00 | 175.59 |
| - | 6/17/12008 | 179.44 | 1 | 194.00 | 196.00 | 179.44 |
| $\checkmark$ | 6/26/2008 | 183.65 | 2 | 194.00 | 196.00 | 176.26 |
| - | 9/12/2008 | 154.62 | 2 | 165.00 | 170.00 | 154.21 |
| 40 | 9/17/2008 | 133.01 | 1 | 155.00 | 160.00 | 114.50 |
| - | 12/16/2008 | 76.00 | 1 | 95.00 | 100.00 | 76.00 |
|  | 2/212009 |  | Hausner |  |  |  |
| - | 2/212009 | 83.57 | SR | NE | NE | 83.57 |
|  | 4/13/2009 |  | Burnell |  |  |  |
| - | 4/13/2009 | 130.15 | 1 | 138.00 | 141.00 | 130.15 |
| - | 6/17/2009 | 144.16 | 1 | 169.00 | 179.00 | 139.73 |
| - | 10/7/2009 | 186.98 | 1 | 209.00 | 220.00 | 190.48 |
| - | 1/11/2010 | 174.31 | 1 | 205.00 | 215.00 | 171.56 |

Source: Wells Fargo Securities, LLC estimates and Reuters data


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2=Market Perform: The stock appears appropriately valued, and we believe the stock's total return will be in line with the market over the next 12 months. HOLD
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## SECTOR RATING

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$\mathbf{M}=$ Market Weight: Industry expected to perform in-line with the relevant broad market benchmark over the next 12 months. $\mathbf{U}=$ Underweight: Industry expected to underperform the relevant broad market benchmark over the next 12 months.

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As of: April 19, 2010

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50\% of companies covered by Wells Fargo Securities, LLC Equity Research are rated Market Perform.

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North America | United States Investment Banking \& Brokerage (GICS) | Banks (Citi)

## Company

## Goldman Sachs Group, Inc. (GS)

## Reiterate Buy - Risks Are There, But Still See Significant Upside

- Reiterate Buy, High Risk Rating - Despite significant headwinds from regulatory reform and increased legal risks, we are maintaining our Buy $(1 \mathrm{H})$ rating on GS. While it's very challenging to pinpoint impacts of regulatory reform, we apply our best conservative estimates on Goldman's business model. In short, we are haircutting trading revenue by $20 \%$ to account for impact of OTC derivative reform, we see an additional $\$ 4$ bil revenue hit from the Volker rule, with the only offsets: 1) estimated $\$ 8$ bil of capital freed up (which we account for through share buybacks) and 2) lower comp ratio (est $41 \%$ ). As a result, we reduce our long-term ROTE est from $19.5 \%$ to $16 \%$, and reduce our target price to $\$ 200$. Trading at $\$ 145$ vs underlying book value of $\$ 123$, we est market is implying a $12 \%$ ROTE, which we view as conservative, and thus creates an opportunity in the stock. Litigation remains a significant overhang on stock, but we continue to believe that GS has among the most robust risk mgmt processes on the street and are assigning a low probability of adverse outcome from lawsuits beyond a monetary fine in our target price.
- Estimating Impact of Volker Rule and OTC Derivative Reform - In our Jan 7 note, "Breaking Down the Fixed Income Trading Black Box" we estimated derivatives account for roughly $35 \%$ of FICC trading revenue, and in a conservative scenario we could see up to a $15 \%$ hit to FICC revenue, or $40-45 \%$ reduction in derivatives revenue from proposed derivatives reforms legislation at that time. With the introduction of the Lincoln legislation, there is potentially more downside risk due to tighter exemptions and more flow going to exchanges. Our 20\% estimated hit to trading revenue for GS reflects our view that Goldman's revenue mix is more skewed to derivatives than peers. For the Volker rule, we lay out by business where we see revenue impacts and potential capital relief.
- Updating Estimates, lowering target to $\$ \mathbf{2 0 0}$ - Based on our updated regulatory analysis and 1Q results, we raise 2010 ests from $\$ 18.00$ to $\$ 20.00$ to account for 1Q beat, stronger trading revenues and lower est comp ratio ( $41 \%$ ). 2011 remains unchanged at $\$ 19.50$ and we trim 2012 from $\$ 22.50$ to $\$ 21.35$.

| EPS | Q1 | Q2 | Q3 | Q4 | FY | FC Cons |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 2009 A | 3.39 A | 4.93 A | 5.25 A | 8.20 A | 22.13 A | 22.13 A |
| 2010E | 5.59 A | 5.20 E | 4.70 E | 4.55 E | 20.00 E | 19.51 E |
| Previous | 4.45 E | 4.40 E | 4.15 E | 4.95 E | 18.00 E | na |
| 2011E | na | na | na | na | 19.50 E | 20.85 E |
| Previous | na | na | na | na | 19.50 E | na |
| 2012E | na | na | na | na | 21.35 E | 22.51 E |
| Previous | na | na | na | na | 22.50 E | na |

Equity ${ }^{\text {® }}$
Target price change of Estimate change ©

| Buy/High Risk | 1 H |
| :--- | ---: |
| Price (30 Apr 10) | US $\$ 145.20$ |
| Target price | US $\$ 200.00$ |
| from US $\$ 240.00$ |  |
| Expected share price return | $37.7 \%$ |
| Expected dividend yield | $1.0 \%$ |
| Expected total return | $38.7 \%$ |
| Market Cap | US $\$ 76,499 \mathrm{M}$ |

Price Performance (RIC: GS.N, BB: GS US)



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Source: Company Reports and dataCentral, CIR. FC Cons: First Call Consensus.
See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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Goldman Sachs Group, Inc. (GS)
2 May 2010

For further data queries on Citi's full coverage universe. please contact CIR Data Services Americas at CIRDataServicesAmericas@citicom or +1-212-8165336

| Fiscal year end 31-Dec | 2008 | 2009 | 2010E | 2011E | 2012E |
| :--- | :---: | ---: | ---: | ---: | ---: |
| Valuation Ratios |  |  |  |  |  |
| P/E adjusted ( $x$ ) | na | 6.6 | 7.3 | 7.4 | 6.8 |
| P/E reported ( $x$ ) | na | 6.6 | 7.2 | 7.4 | 6.8 |
| P/BV $(x)$ | na | 1.2 | 1.1 | 1.0 | 0.9 |
| P/Adjusted BV diluted ( $x$ ) | na | na | na | na | na |
| Dividend yield (\%) | na | 1.0 | 1.0 | 1.4 | 1.4 |
| Per Share Data (US\$) |  |  |  |  |  |
| EPS adjusted | na | 22.13 | 20.00 | 19.50 | 21.35 |
| EPS reported | na | 22.13 | 20.06 | 19.58 | 21.35 |
| BVS | na | 117.48 | 137.54 | 149.36 | 164.47 |
| Tangible BVPS | na | 108.42 | 126.47 | 135.81 | 148.63 |
| Adjusted BVPS diluted | na | na | na | na | na |
| DPS | na | 1.40 | 1.40 | 2.00 | 2.00 |

Profit \& Loss (US\$M)

| Net interest income | na | 0 | 0 | 0 | 0 |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Fees and commissions | na | 10,800 | 11,661 | 12,574 | 13,478 |
| Other operating Income | na | 34,373 | 35,812 | 31,854 | 30,362 |
| Total operating income | na | 45,173 | 47,473 | 44,428 | 43,840 |
| Total operating expenses | na | $-25,306$ | $-28,639$ | $-27,470$ | $-27,890$ |
| Oper. profit bef. provisions | na | 19,867 | 18,834 | 16,958 | 15,950 |
| Bad debt provisions | na | 0 | 0 | 0 | 0 |
| Non-operating/exceptionals | na | -38 | 0 | 0 | 0 |
| Pre-tax profit | na | 19,829 | 18,834 | 16,958 | 15,950 |
| Tax | na | $-6,444$ | $-6,314$ | $-5,511$ | $-5,184$ |
| Extraord./Min. Int./Pref. Div. | na | $-1,193$ | -640 | -640 | -640 |
| AAtributable profit | na | 12,192 | 11,880 | 10,806 | 10,126 |
| Adjusted earnings | na | 12,192 | 11,845 | 10,762 | 10,128 |
| Growth Rates (\%) |  |  |  |  |  |
| EPS adjusted | na | na | -9.6 | -2.5 | 9.5 |
| Oper. profit bef. prov. | na | na | -5.2 | -10.0 | -5.9 |


| Balance Sheet (US\$M) |  |  |  |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Total assets | na | 848,942 | 948,741 | $1,047,232$ | 996,771 |
| Avg interest earning assets | na | 0 | 0 | 0 | 0 |
| Customer loans | na | 0 | 0 | 0 | 0 |
| Gross NPLs | na | 0 | 0 | 0 | 0 |
| Liab. \& shar. funds | na | 848,942 | 948,741 | $1,047,232$ | 996,771 |
| Total customer deposits | na | 39,418 | 0 | 0 | 0 |
| Reserve for loan losses | na | 0 | 0 | 0 | 0 |
| Shareholders' equity | na | 70,714 | 81,299 | 72,899 | 65,189 |
| Profitability/Solvency Ratios (\%) |  |  |  |  |  |
| ROE adjusted | na | 21.7 | 16.8 | 15.3 | 15.6 |
| Net interest margin | na | na | na | na | na |
| Cost/income ratio | na | 56.0 | 60.3 | 61.8 | 63.6 |
| Cash cost/average assets | na | 2.9 | 6.7 | 459.1 | 466.2 |
| NPLs/customer loans | na | na | na | na | na |
| Reserve for loan losses/NPLs | na | na | na | na | na |
| Bad debt provi/avg. cust. loans | na | na | na | na | na |
| Loans/deposit ratio | na | 0.0 | na | na | na |
| Tier 1 capital ratio | na | 15.0 | 15.8 | 15.6 | 17.7 |
| Total capital ratio | na | na | na | na | na |

Goldman Sachs Group, Inc. (GS)
2 May 2010

## Section I: Volcker Rule

We estimate impact to Goldman from implementation of the Volcker rule could eliminate between $\sim \$ 3.5-4.0$ bil of annual revenue, however we would anticipate divestiture or sale of private equity and other businesses would freeup between $\$ 8-10$ billion of capital, that could be redeployed to other opportunities, or returned to shareholder via buybacks. On a comprehensive basis, assuming theoretically GS could return the existing $\$ 8$-10 bil estimated capital back to shareholders via stock buybacks, the net impact to our earnings estimate equates to $\$ 1.00 /$ share. (Note this estimate strictly includes impact from private equity, "pure prop" trading and hedge fund activities, and excludes proprietary trading related to market making activities, which we interpret to be outside of the scope of the Volcker rules.)

Background - Sponsored by former Fed Chairman Paul Volcker, the so-called "Volcker Rule," which President Obama described as an integral component to financial reform in his April 22 speech in NY - seeks to prohibit banks from engaging in proprietary trading, or owning or sponsoring hedge funds and private equity funds. While the specifics of what counts as proprietary are highly debatable, below we step through a rough exercise using Goldman Sachs, likely the firm most affected by these rule. We try to estimate:

1) How much revenue is at risk to be lost from elimination of prop trading, HF ownership, and private equity investing?
2) Which particular assets are likely to be affected?
3) How much regulatory capital currently allocated to these assets could be freed up for redeployment elsewhere or returned to shareholders?
4) Revenues Impacted - GS management has offered a rough estimate that $10 \%$ plus-or-minus of the firm's revenue comes from proprietary investments including Goldman's walled-off proprietary fixed income and equity divisions (SSG and GSPS) as well as their private equity Principal Investments group. We note that management's $10 \%$ figure represents a rough average overtime, and is skewed upwards from significantly higher contributions during 2006 and 2007 vs much lower results in recent years.

- Principal Investing: est $\sim \$ 2$ bil of annual revenue at risk: We estimate Goldman is likely to forgo $\sim \$ 2$ bil of annual revenue annually from its principal investment portfolio (assumed $\sim 15 \%$ annual return on $\$ 14$ bil portfolio), which consists primarily of co-investments in funds managed by Goldman's Principal Investment Area (PIA) and Real Estate Principal Investment Area (REPIA) which operate the GS Capital Partners Funds and the Whitehall Funds, among others.
- Unclear if ICBC impacted - Note GS also holds a $\$ 3$ bil restricted public common stock position in Industrial Commercial Bank of China (ICBC) which we estimate embeds an unamortized liquidity discount of $\$ 900$ mil as of $3 / 31 / 10$. Aside from release of this estimated embedded liquidity discount, we do not model any future revenues from ICBC.
- Prop Investments in FICC and Equity trading: est $\sim \$ 1.0-1.5$ bil of annual revenue at risk - Within Goldman's trading businesses we believe there are two segments that most likely impacted by the Volcker rule: the Special Situations Group within FICC, and GS Proprietary Strategies in Equities. While we do not believe there is necessarily a "normal" rate of annual revenue for these groups - as in 2006-2007 SSG posted significant gains from sales of several large concentrated positions while GSPS likely lost money in 2008, we estimate Goldman will forgo about \$1.0-1.5 bil in average annual revenues from an exit of their SSG and GSPS activities. Our admittedly rough revenue estimate is based on the $10 \%$ sensitivity disclosure for risk positions shown in the 10-K, which shows that for a $10 \%$ change in value there would be a $\$ 431$ million increase in revenues for debt positions and a $\$ 616$ mil increase in equity positions -- for a cumulative impact of roughly $\$ 1$ billion. Assuming an estimated return of $10-15 \%$ on underlying assets, we estimate revenue impact of \$1-1.5 billion.
- Note not all activities of SSG seem likely to be prohibited under Volcker We view our \$1.0-1.5 bil estimate as relatively conservative, given we believe a number of SSG activities investments relate to distressed loans backed by residential and commercial real estate assets, which may be deemed allowable (if deemed lending activities rather than proprietary investments).
- We exclude market making prop-positions - Our estimate excludes proprietary/principal positions taken in market-making activities, which we interpret as outside the scope of the Volcker rule, although the impacts of the final rules are unclear.
- Hedge Fund sponsorship/management - est $\$ 300-400$ mil of revenue at risk. In addition we estimate Goldman may be limited in some of its alternative asset management businesses - with instances where Goldman manages hedge funds and co-invests with clients appear most at risk. While the firm has $\$ 142$ bil of alternative management strategies, we believe most of these strategies would not qualify as hedge fund or private equity funds under the Volcker rule. For example, several of Goldman's larger funds (e.g. the \$2030 bil in the Mezzanine Partners family) are likely to be viewed as pooled lending vehicles rather than private equity funds. The unit most likely to see impact in our view is GS Investment Partners, Goldman's long-short hedge fund that was spun out of its Principal Strategies group in late 2006, and which we estimate has between $\$ 5-10$ bil of AUM.
- Our \$300-400 mil annual revenue estimate assumes 25\% of Goldman's $\$ 142$ bil alternative asset management assets would be impacted, or $\sim \$ 35$ bil of $A \cup M$, of which we assume GS will forego annual management fees of $1.0 \%$, or $\sim \$ 350 \mathrm{mil}$.

2) We Identify $\$ 30$ bil of Assets on the Balance Sheet Impacted by Volcker Below we itemize the most obvious assets on Goldman's balance sheet we estimate will most likely be impacted by the Volcker rule - direct principal investments discussed above, including Goldman's stake in ICBC, our estimate of the equity and debt assets held by Goldman's SSG and GSPS subsidiaries, based on Goldman's $10 \%$ sensitivity disclosure for risk positions not included in VAR. We also count other consolidated investments in private equity and hedge funds from Goldman's "difficult to fund" disclosure.

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Figure 1. Impacted Assets from Potential "Volcker Rule" Implementation

| 1) Principal Investments | 19,684 |
| :--- | ---: |
| Private | 11,195 |
| Public | 2,811 |
| Other Consolid Pvt Equity | 2,900 |
| ICBC owned by GS | 2,778 |
| 2) Proprietary Postions | 10,500 |
| Equity | 6,200 |
| SSG Est | 3,720 |
| GSPS Est | 2,480 |
| Debt (SSG Est) | 4,300 |
| 3) Hedge funds / Alternative Asset Mgmt | 0 |
| Est Total B/S Assets Impacted | $\mathbf{3 0 , 1 8 4}$ |

Source: CIRA and company reports as of 1010; Other consolidated private equity and pro
3) Capital relief from exiting these businesses - we estimate $\$ 8-10$ bil of relief. - Based on assets identified above, we estimate that roughly $\$ 8-10$ bil of capital is currently set aside for private equity/proprietary instruments shown above that potentially could be freed up if GS had to exit these businesses. Assuming a conservative $\$ 180$ stock price for stock repurchases, would equate to 45-55 million share capacity to return capital to shareholders, or $8-10 \%$ of the current 539 mil shares outstanding. Note, our $\$ 8-10$ bil capital estimate is based on the assumption that Goldman currently holds between capital at a rate of $24 \%$ for public investments and $32 \%$ for private.
4) Mitigation strategies exist, but can not be employed until final rules are known - We also note that GS may be able to undertake certain mitigating strategies to adjust its business practices so as to eliminate issues caused by the Volcker rule, such as instituting independent boards on some of the alternative asset management products it manages, selling its own coinvestment interests in some of its funds, or other activities, which might help reduce the ultimate impact of the Volcker rule.

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## Section II: Derivatives Reform

Updating our estimates on negative impacts from derivative reform. In our January 7, 2010 note, "Breaking Down the Fixed Income Trading Black Box" we estimated that derivatives account for roughly $35 \%$ of fixed income trading, and that in a conservative scenario the industry could see up to a $15 \%$ hit to fixed income trading revenues, or $40-45 \%$ reduction in derivatives revenue based on our interpretations of rules under the House and Senate bills at that time.

- We estimate Goldman will see a $\mathbf{2 0 \%}$ negative hit to trading revenues from derivatives reforms... Our 20\% negative impact to trading revenue estimate for GS reflects our view that Goldman's revenue mix is more heavily weighted to derivatives than peers. Based on our understanding of equities revenues, we have assumed a similar 35/65\% derivatives/cash revenue split in the equities business as we have in FICC and therefore use the simplifying assumption of a similar impact to revenues for Goldman.
- ...Note our 20\% estimate does not include the more onerous interpretation of the Lincoln bill. Note that the most conservative interpretation of the Lincoln bill (discussed below) implies US banks eligible to receive federal assistance would have to exit the "swaps business" entirely, which is not in our estimates.

Figure 2. Our Estimate of Industry Trading Revenue at Risk from Derivatives Regulation Reform

| $200-300 \mathrm{bps}$ | Clearing Impact |
| ---: | :--- |
| $500-800 \mathrm{bps}$ | Exchange Impact |
| $300-500 \mathrm{bps}$ | Punitive Capital Rules |
| $10-15 \%$ | Total Potential Negative Impact |

Source: CIRA estimates

Given recent momentum towards new derivatives rules within the broader financial reform legislation and the recent introduction of provisions introduced by Senator Lincoln and the Senate Agriculture Committee legislation, we now see potentially greater downside risk due to our expectation that there might be fewer types of transactions eligible for exemptions from central clearing, and a greater proportion of trading flow pushed to third party exchanges.

The key assumptions in our $\mathbf{1 0 - 1 5 \%}$ industry revenue hit estimate include:

1) On average $75 \%$ of trades are eligible to be centrally cleared (i.e. not with end-users). 2) Of these trades, $\sim 80 \%$ of eligible trades are centrally cleared. 3) Dealers will see a $10 \%$ loss in volume in cleared business, and an incremental $5 \%$ impact to margins. 4) $70 \%$ of cleared volumes will also be forced to third party exchanges. 5) Exchange economics will force an incremental $70 \%$ hit to bid/ask margins. All combined we estimate this would produce a $7-11 \%$ negative impact on overall trading revenues. Lastly, for derivatives not centrally cleared, we estimate that higher funding costs, or the exit from certain types of derivatives business due to highly punitive capital rules, would cost another 3$5 \%$ of revenues. (For more details on our calculations and implications, please see our January report.)

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## Background on Recent Lincoln Bill on Derivatives

Next we summarize some background information on the recent Lincoln bill which updates prior proposed rules on derivatives reform.
Senator Dodd's revised bill on financial regulatory reform, as submitted to the Senate Banking Committee in March, sought centralized clearing for most derivatives and exchange trading for standardized derivatives. The bill did not restrict the ability of banks to engage in derivatives trading, and the Administration had not requested any such restriction, to our knowledge.
However, Senator Blanche Lincoln, chair of the Senate Agriculture Committee, made a far-reaching proposal that subsequently was included in the latest version of Senator Dodd's bill. Sen. Lincoln's Committee approved a bill that would prohibit Federal "bailouts of swap entities." The pertinent provision, section 106, states that no "swaps entity" (which is broadly defined) could receive any Federal assistance, including:

- Access to the Federal Reserve's discount window
- Advances from any Fed credit facility provided under its 13 (3) lender of last resort authority
- Any FDIC insurance or guarantees

Since FDIC insured deposits are the largest funding source for most banks and access to the Fed's emergency lending facilities could be important in a crisis, the practical impact of section 106 would be to force financial firms to move their derivative trading activities out of their bank subsidiaries.

The "Lincoln Amendment" moved swiftly through the legislative process. Sen. Lincoln proposed the general principles to the Agriculture Committee on April 16. The Committee received the text of the proposed bill on April 18 and approved it on April 21. The Agriculture Committee did not hold hearings on the proposal or conduct studies on the possible ramifications.
Sen. Dodd subsequently incorporated section 106 into the latest version of his bill, the "Restoring American Financial Stability Act of 2010", renumbering it as section 716. The scope of the prohibition on banks' trading derivatives is somewhat ambiguous, because of a related provision, section 1155, which concerns "Emergency Financial Stabilization". That section provides that the FDIC is to guarantee "obligations" of solvent banks and bank holding companies during times of economic stress. Under a broader interpretation, the two sections, in combination, might compel bank holding companies to spin off their derivative trading activities into a totally unrelated company, outside the banking group. (We consider the broader interpretation somewhat extreme but several other commentators have also noted the ambiguity regarding the scope of the bill).

The prospects for the passage of the Lincoln Amendment, or narrowing its scope, are not clear at the present. However, some Administration officials have voiced opposition to the proposal to move derivative trading out of banks. FDIC Chair Sheila Bair has sent a letter to Senators Dodd and Lincoln stating that if all derivative activities were moved out of banks, "most of the activity would no doubt continue but in less regulated and more highly leveraged venues.....I urge you to carefully consider the underlying premise of this provision-that the best way to protect the deposit insurance fund is to push higher risk activities into the so-called shadow sector." (Reuters, Swaps Desk Spin-off Not the Right Policy-FDIC, May 1, 2010).
In addition, John Dugan, Comptroller of the Currency, has said that limiting banks' participation in the swaps market was not the best policy and could cause capital to leave the lending part of banks, according to Reuters.

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## Section III: Legal Issues

Since news of the SEC's civil suit broke on April 16, Goldman Sachs stock has fallen $21 \%$ with the most recent leg down driven by press reports on of an ongoing concurrent criminal investigation by the US Attorney in Manhattan.

Our Buy, High Risk (1H) recommendation of GS shares embeds a very low probability of negative outcome from the criminal investigation - Given our view that Goldman Sachs has among the most robust risk management processes in the industry, our understanding of the relatively high burden of proof required in criminal cases, and based on the information available at this point, our buy recommendation of Goldman Sachs stock and \$200 target price, embeds a very low probability of negative outcome from the criminal investigation.

Below we summarize: 1) important facts regarding the SEC civil suit, 2) differences between civil and criminal charges, 3) the recent news of a criminal investigation, 4) risks that might arise from an adverse outcome in criminal case, and 5) summarize Goldman's response to the SEC's civil charges.

1) SEC Civil Suit Against Goldman - The SEC alleges that Goldman structured a synthetic collateralized debt obligation (CDO) structure that was based on subprime mortgage securities that Goldman marketed as being selected by an independent manager (ACA Management LLC).

- It appears the civil case against Goldman is focused on a single transaction and is based on disclosure issues and questions of misrepresentation - The complaint alleges that Goldman failed to disclose to investors that a major hedge fund (Paulson \& Co. Inc.) played a role in the portfolio selection process and had taken a short position against the bonds referenced in the CDO. Essentially saying, investors in the CDO sold protection on the referenced bonds (took the credit risk) through credit default swaps, while Goldman's client bought protection (shorted credit risk). Also, the SEC alleges that Goldman misled ACA into believing that Paulson was investing in the CDO equity and therefore shared a long interest with the CDO investors. The SEC alleges that Paulson paid Goldman $\$ 15$ million to structure the CDO. According to the complaint, investors in the CDO lost about $\$ 1$ billion while Paulson made a profit of about $\$ 1$ billion. GS agrees that it was paid $\$ 15$ mil in the deal, but said it lost over $\$ 100$ mil on its own investment.
- We believe some form of monetary settlement with the SEC is the most likely outcome of the civil suit - While it is difficult to assess the likely size of any settlement with the SEC, given the strong incentives for Goldman to put an end to the negative publicity from this issue, we believe settlement and payment of a monetary penalty is the most likely outcome of the civil suit.
- Additional lawsuits from other investors remains a risk - In addition to risks from the ongoing civil suit and criminal investigations, recent heightened scrutiny of Goldman may increase the risk of new suits from other investors/ clients that may have lost money during the financial crisis.
- Reputational risk could damage Goldman's franchise - While we do not believe at this point Goldman's institutional client base has altered their business practices at this point, Goldman's reputation is one of the firm's greatest assets. To the extent clients lose faith and either reduce or eliminate their interactions with Goldman, it could have significant detrimental effect across all of the firm's businesses.

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2) Distinguishing between Civil and Criminal Cases: In a civil case, the SEC enforcement attorneys must show that the preponderance of evidence demonstrates that a firm misled investors. The SEC does not have the authority to send individuals found guilty to jail, however it may levy fines and/or revoke securities licenses. In criminal cases, prosecuted by the Department of Justice, prosecutors must prove beyond a reasonable doubt that a firm or its employees intentionally committed fraud. According to the WSJ, "proving such intent to break the law typically is the toughest hurdle for prosecutors to clear."
3) Press Reports Indicate a Criminal Investigation of Goldman is underway -

According to recent reports in the Wall Street Journal and Bloomberg, the US Attorney's Office in Manhattan is conducting a criminal investigation into Goldman's mortgage-related activities.

- Criminal investigation is at an early stage apparently, and it seems too early to draw any conclusions - According to the Bloomberg, referrals between SEC and Justice are "common" in high-profile cases, and given the intense scrutiny of Goldman, as reflected in the recent Congressional hearings, it is not entirely surprising that a further investigation is being conducted. Of note, the WSJ article said that many criminal investigations are launched without the government filing charges. Based on such press reports, it seems premature to draw any conclusions about whether the investigation will or will not result in charges being filed against the firm. In our opinion, GS has a track record of devoting substantial resources and attention to risk management and compliance matters.

4) Risks of potential implications from criminal charges or conviction are high Given potential implications, the risk in the event of an adverse legal outcome to Goldman Sachs' securities business is high. While we are assigning a low probability of a negative outcome - given little information regarding the details of the investigation, no access to any evidence involved in the criminal investigation, and our lack of legal expertise - there is significant risk that investors must be aware of.

- Potential implications to a securities dealer of criminal charges - There are several potential implications of the filing of criminal charges against a securities dealer. Trading counterparties could pull back from the firm. Investment banking clients could also turn away from a firm, for fear of deals being tainted by reputation of the charged firm. From a liquidity perspective, the ability to issue commercial paper or fund via repurchase transactions could be disrupted by investor/counterparty concerns. Criminal charges could also prompt downgrades from bond ratings agencies, which could negatively impact funding capacity or costs.
- Potential implications of criminal conviction for a securities firm are severe If a securities firm were convicted of criminal fraud, then it could lose its license as a primary treasury dealer; broker dealer licenses to sell securities could also be revoked.
- There may be new evidence uncovered - One detail we find concerning is that the WSJ reported the criminal investigation is "centered on different evidence than the SEC's civil case." Despite this point, the WSJ did not provide any details on this matter.

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The following portion of this note is excerpted from Citi Research \& Analysis corporate bond analyst Ryan O'Connell's April 20, 2010 note "GS: Strong 1Q10 Earnings Overshadowed by SEC lawsuit".
5) Goldman directly addressed the SEC's civil suit in its $1 Q$ earnings conference call. Greg Palm, co-General Counsel, summarized Goldman's reaction to the SEC's allegations. The litigation is at a very preliminary stage, and it would be premature to draw any conclusions as to the ultimate outcome of the action or the timing of any resolution. However, we think that Goldman has raised some important questions about the SEC's allegations and the underlying rationale for its lawsuit:

- According to GS, there were only two institutional investors in the Abacus 2007-1 synthetic CDO structure and both had substantial experience in investing in subprime mortgages. Furthermore, GS stressed that in synthetic CDO structures there must be both long and short investors. Since these were sophisticated investors in synthetic CDO deals, GS maintains, there was no need to disclose that a large hedge fund was taking the short side. GS pointed to the fact that it lost over $\$ 100$ million on the deal, because it held a slice of the super senior tranche, as evidence that it did not have an incentive to structure a transaction that was designed to lose money. (Goldman was very circumspect on the call, but our impression was that Goldman would have preferred to sell that holding to other investors but was not able to do so.)
- GS said that ACA was paid to select the reference bonds for the CDO structure and used its own proprietary models to do so. ACA rejected numerous suggestions from Paulson, so that "way more than one half of the portfolio were ACA's suggestions", Palm said. According to GS, ACA knew that Paulson was deeply involved in suggesting reference bonds for the CDO and ACA was doing its own due diligence.
- (The complaint states that ACA had several meetings with Paulson \& Co., as well as correspondence about which reference bonds would be used in the CDO structure, and that ACA rejected 55 out of Paulson's 123 suggestions.) The SEC has alleged that a Goldman vice president, Fabrice Tourre, misled ACA into thinking that Paulson would take an equity interest (a long position) in the CDO structure. Goldman said on the conference call that it had not made any representation to that effect. For investors who wish to delve into this issue in more detail, please see paragraphs 44-51 of the SEC's complaint, which can be found at www.sec.gov/news/press/2010/2010-59.htm.
- Goldman did not discuss the other investor, a German bank called IKB, in much detail during the conference call. IKB invested about $\$ 150$ million in the deal, compared to $\$ 950$ million for ACA, according to GS.
- The SEC alleges that in late 2006 IKB told GS that it was no longer comfortable investing in mortgage CDOs unless an independent portfolio manager selected the reference bonds for a CDO structure. If that allegation is accurate, then IKB might have relied on the representation that ACA (alone) picked the bonds.
- We do not know at this time whether or not the SEC might bring complaints regarding other GS CDO deals. However, we note that the SEC investigated GS' mortgage business for 18 months, according to GS, and it limited the complaint to one transaction.


## Goldman Sachs Group, Inc.

## Company description

Goldman Sachs Group, Inc. (GS) is a global investment banking, trading, and asset management company, with leading market shares across its businesses. Founded in 1869, it is one of the world's oldest and largest investment banking firms. Headquartered in New York, the firm maintains offices in London, Frankfurt, Tokyo, Hong Kong, and other major financial centers around the globe. Over the past five years ending 2009, Equities and M\&A averaged 45\% of net revenue, Fixed Income Trading, Debt Underwriting, and Commodityrelated revenue comprised $40 \%$, Asset Management and Prime Brokerage accounted for $12 \%$, and Principal Investments accounted for $3 \%$.

## Investment strategy

We rate the shares of Goldman Sachs Group Buy/HighRisk (1H). We view Goldman Sachs as a well managed franchise and believe its strong capital base and leading global position in investment banking, capital markets, trading, private equity and asset management offer equity investors a unique opportunity to gain exposure to long-term global economic expansion. In recent months management has bolstered liquidity, actively de-leveraged the balance sheet and made solid progress reducing high risk legacy assets.

Despite the challenges facing the industry, we view Goldman's business model as sound and see the firm winning considerable market share as we exit the current down cycle. At current prices, we believe potential rewards from unique opportunities from distressed investments are likely to outweigh downside risks. We estimate Goldman can produce a double-digit growth rate in book value, and expect shares should see some multiple expansion. Long term, we see Goldman Sachs as among the best positioned to capitalize on global growth given its leadership position, and shares should command a premium valuation relative to peers.

## Valuation

Our \$200 target price is derived from our discounted residual income model, which values an enterprise based on its discounted excess returns over its cost of equity. The key inputs to the model are a CAPM-derived cost of equity of $11.5 \%$. We also incorporate an estimated long-term ROTE of about $16 \%$ (vs management's $20 \%$ over-the-cycle target and historical median of $26 \%$ since 1999). Our model assumes a $20 \%$ dividend payout ratio and a 3\% long-term growth rate. Our $\$ 200$ target price for GS implies the stock should trade at 1.5 x our 2010 TBV estimate of $\$ 137$, or $1.8 x$ current TBV of $\$ 111$ (which is a the lower-end of Goldman's historical range over the past five years of $0.6-3.5 \mathrm{x}$ with an average of 2.8 x ).

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## Risks

We rate Goldman Sachs High Risk.

## Company-specific negative risks:

- Severe slowdown in investment banking and capital markets - A prolonged and deep economic recession could significantly impair Goldman's cyclical investment banking revenue streams, causing earnings to underperform our estimates. Also, an environment with benign risk and relatively low levels of activity would also be a negative.
- Significant investment and principal losses - Our estimates for Goldman include significant private equity gains and assume equity market appreciation of $10-15 \%$. If the equity market is significantly weaker than expected, there may be near term risk to our estimates. A severe decline in the equity, fixed income, real estate or commodities markets, and/or ineffective hedging strategies given Goldman's significant financial inventories and principal investments could produce larger-than-expected losses.
- Regulatory risk - Goldman operates several businesses including financial and physical commodity trading, private equity or derivatives that could face greater regulation, or in a severe case, require Goldman to divest some business units.
- Litigation risk - The SEC recently filed a civil suit against Goldman Sachs alleging fraud. This suit and/or other potential suits create reputational risk and the possibility of significant monetary penalties.
- An expensive / poorly executed acquisition - Although Goldman Sachs has a long history of organic growth, the current environment presents numerous acquisition opportunities, which could entail price and execution risk.

If the impact on the company from any of these factors proves to be greater/less than we anticipate, it may prevent the stock from achieving our target price or could cause our target price to be materially outperformed.

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## Appendix A-1

## Analyst Certification

The research analyst(s) primarily responsible for the preparation and content of all or any identified portion of this research report hereby certifies that, with respect to each issuer or security or any identified portion of the report with respect to an issuer or security that the research analyst covers in this research report, all of the views expressed in this research report accurately reflect their personal views about those issuer(s) or securities. The research analyst(s) also certify that no part of their compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this research report.

## IMPORTANT DISCLOSURES

Goldman Sachs Group, Inc. (GS)
Ratings and Target Price History
Fundamental Research
Analyst: Keith Horowitz, CFA
Covered since April 92009


|  |  |  |  | 2008 |  |  |  |  | - |  | 2010 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | Rating | Target Price | Closing Price | Date | Rating | Target Price | Closing Price |  | Da | Rating | Target Price | Closing Price |
| 1] 14-Jun-07 | 2 H | *230.00 | 225.75 | (6) 16-Nov-08 | 1S | ${ }^{\text {' } 125.00}$ | 66.73 |  | 10-Sep-09 | 1 M | *215.00 | 174.87 |
| (2) 19-Feb-08 | 2 H | *205.00 | 173.80 | 7. 19-Nov-08 | Coverage suspended |  |  |  | 15-0ct-09 | 1 M | *240.00 | 188.63 |
| (3) 15-Sep-08 | * 2 S | *175.00 | 135.50 | (8) 9-Apr-09 | *1M | * 145.00 | 124.33 |  | 16-Apr-10 | ${ }^{*} \mathrm{H}$ | 240.00 | 160.70 |
| (4) 3-0ct-08 | 2 S | *150.00 | 128.00 | (9) 17-May-09 | IM | *160.00 | 134.40 |  |  |  |  |  |
| (5) 14-Oct-08 | *18 | 150.00 | 122.90 | [10] 15-Jul-09 | 1 M | *175.00 | 155.26 |  |  |  |  |  |

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Rohini Malkani has in the past worked with the India government or its divisions in her personal capacity.
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| Citi Investment Research \& Analysis Ratings Distribution |  |  |
| :--- | :--- | :--- |
| Data current as of 31 Mar 2010 | Buy | Hold |
| Citi Investment Research \& Analysis Global Fundamental Coverage | $51 \%$ | $36 \%$ |
| $\%$ of companies in each rating category that are investment banking clients | $48 \%$ | $46 \%$ |

## Guide to Citi Investment Research \& Analysis (CIRA) Fundamental Research Investment Ratings:

CIRA's stock recommendations include a risk rating and an investment rating.
Risk ratings, which take into account both price volatility and fundamental criteria, are: Low (L), Medium (M), High (H), and Speculative (S).
Investment ratings are a function of CIRA's expectation of total return (forecast price appreciation and dividend yield within the next 12 months) and risk rating.

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Goldman Sachs Group, Inc. (GS)
2 May 2010

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2 May 2010
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[^1]
# Goldman Sachs: Management Speaks Frankly About the Future of the Firm 

| Ticker | Rating | CUR | 5/3/2010 Closing Price | Target Price | TM <br> Rel. <br> Perf. | EPS |  |  | PIE |  |  | Yield |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 2009A | 2010E | 2011E | 2009A | 2010 E | 2011E |  |
| GS | 0 | USD | 149.50 | 210.00 | -19.4\% | 22.13 | 18.08 | 18.01 | 6.8 | 8.3 | 8.3 | 1.0\% |
| SPX |  |  | 1202.26 |  |  | 61.70 | 83.20 | 98.56 | 19.5 | 14.5 | 12.2 | 1.8\% |

O - Outperform, M - Market-Perform, U- Underperform, N - Not Rated

## Highlights

On Friday afternoon, Bernstein met with representatives of Goldman Sachs Senior Management: Gary Cohn, (President and Chief Operating Officer), David Viniar (CFO), David Solomon (Co-Head Investment Banking) and Harvey Schwartz and David Heller (Co-Heads of Securities Division). Much of the conversation was focused on the future of regulation. Though management believes they lack clear insight into how regulation will ultimately shake out, it is committed to keeping an open dialogue with regulators and has invested much of the firm's resource and focus into preparing the business for the eventual outcome.

- The firm and clients respond to recent allegations: For the last two weeks Goldman's most senior management has been visiting with clients worldwide to discuss any concerns they may have with the firm in the wake of the SEC announcement. According to Goldman, "...through today, we have seen no degradation of business. " Assignments that Goldman had anticipated winning have been won and trade flows remain in line with expectations. The firm's underwitings are being priced at market and the FICC and Institutional Equity are not having any difficuity placing GS client paper. In fact, management confirmed that the Monday following the announced SEC claim was the largest equity commission day of the year.
- The outlook for regulation is unclear: The impact of new regulation is still very difficult to quantify. The firm works constantly on "war gaming" different scenarios and outcomes of regulation so implementation is quick and seamless. According to the firm, the only proposal that seems nearly certain is the mandate of higher capital levels across the industry. Goldman reassured investors that "We are already running the firm as if things have already changed that capital uses is higher and higher levels of liquidity is needed."
- Derivative Regulation Remains Unclear: Admittedly, the outlook for derivatives is uncertain according to the firm. Bernstein notes that a regulated bank subsidiary of a bank holding company has higher credit ratings than the holding company. As a result, moving the derivatives book from the bank (higher ratings) to a new subsidiary guaranteed by the holding company (lower ratings) is unlikely to be popular with the current and prospective derivative counterparties of US banks, many of which are the constituencies of legislators. Goldman admitted that the firm is at a historic disadvantage with this vanilla OTC business as their credit terms are particularly onerous and given the firm has historically been less willing to compete on leverage by increasing the unsecured margin trigger point relative to competitors. Therefore, forcing standardized margin requirements on an exchange could effectively "level the playing field" for Goldman.
- Positioning the firm for an unclear future: Goldman is preemptively positioning its trading businesses for a changed business madel of exchange listed products and higher capital charges - to succeed in the future, trading needs to be "nimble". Goldman wants to quickly take the skill that it has in its leading, individual trading products and transfer the intellectual property and technology to new products as market opportunities arise. As management stated, "we want to be fast and better than everyone else."
- There is substantial uncertainty about future regulation, civil litigation and client reputation concerning Goldman Sachs. These risks notwithstanding, Goldman Sachs is the leading investment bank and trading house in the world and strategically positioned and focused on taking market share from competitors no matter how regulation ultimately shakes out. We continue to believe the headlines that pressure the stock provide a buying opportunity for investors who are able to look past the near term headline risk. We rate GS Outperform.


## Investment Conclusion

## "There is the risk you cannot afford to take, and there is the risk you cannot afford not to take." <br> Peter Drucker

Goldman Sachs shares plummeted on Friday on press reports that the US Justice Department was reviewing Goldman's MBS business in light of allegations made by the SEC concerning the $\triangle B A C U S ~ C D O ~ d e a i, ~$
Based on the information that has been publicly disclosed to date, a legal expert with whom Bernstein has consulted unequivocally stated that there is "...no basis for a criminal prosecution." Furthermore, he believes GS has strong defenses against the SEC lawsuit. With respect to the SEC case, we note that Tourre bolstered GS's position by testifying that he actually told ACA that Paulson would be buying credit protection against some of the tranches (i.e., that Paulson would be short, which is reportedly the same thing Paulson's employee Paolo Pellegrini has said he told the ACA deal team). This is potentially damaging to the SEC's civil case.

According to our legal advisor "many informed lawyers agree that the SEC's lawswit is just not very strong" in the context of meeting the legal requirements for proving securities fraud under either of the SEC's two legal claims (section 17(a) of the 1933 Act and section 10(b) of the 1934 Act. To prove civil fraud, the SEC will have to show that a material fact was misstated or omitted and that misstatement or omission directly caused the loss to ACA.

Admittedly, Goldman Sachs has incurred reputation damage and may suffer client fallout due to this case it is arguably difficult for a portfolio manager to buy or own GS in an ERISA portfolio, a separately managed account or in a mutual fund due to the current public outrage against the firm. However, Goldman Sachs remains the world's leading M\&A house having closed 286 deals last year totaling $\$ 653$ billion of deals, the sccond largest equity underwriter with $10 \%$ market share and the leading global fixed income franchise that we believe will continue to book solid trading performance through 2010. In addition, Goldman has the largest private equity portfolio of any large capitalization bank, and as confirmed by management, the company is entering the most favorable portion of the economic cycle when the revenues of its highest margin businesses - ECM and M\&A - accelerate and its merchant banking business can "harvest" gains.

There is substantial uncertainty about future regulation, civil litigation and client reputation concerning this stock, but Goldman remains Goldman, the premier investment bank and trading house in the world. We continue to believe the headlines that pressure the stock provides a buying opportunity for investors. We rate GS Outperform.

Irad Hintz (Senior Analyst) • brad.hintz@bernstein.com * +1-212-756-4590

## Details

Goldman Sachs shares fell on Friday based on press reports that the Department of Justice was considering a criminal investigation of Goldman's MBS business in light of the allegations made in the SEC's civil complaint against the bank concerning the ABACUS CDO. On Friday, Bemstein met with representatives of Goldman Sachs Sentior Management: Gary Cohn, (President and Chief Operating Officer), David Viniar (CFO), David Solomon (Co-Head Investment Banking) as well as Harvey Schwartz and David Heller (CoHeads of Securities Division). The meetings focused on the investigation, the client fallout of the SEC's civil litigation, new regulation and derivatives as well as the long-term outlook for the business.

## The Investigation

Goldman stated that the firm initially found out about a prospective criminal investigation through press reports, but management was not surprised by Friday's news. With an SEC fraud investigation, management had been informed by their legal counsel that it was likely that the Department of Justice would either choose to investigate the firm or be asked by Congress to investigate. Goldman Sachs assured us that the firm has cooperated with all investigations and will cooperate with any new investigations but admitted that a criminal charge would indeed be severely negative for the company.
Management told us that this is not an SEC vs. Goldman Sachs issue it is a simple dispute relating to the facts of one case. "We do not want to be in an adversarial relationship with regulators". Management stated that this message is being delivered throughout the firm and that its top priority is to make sure they are on the same page as regulators.
For the last two weeks, Goldman's most senior management has been visiting with clients worldwide to discuss the SEC civil litigation and the ABACUS transaction details, reviewing client relationships and discussing clients' concerns. According to the firm, "we are not just talking to the direct clients but also to the indirect clients such as board members." The clients keep asking. "When is this going to stop." Unfortunately, this case may continue for quite a while. Goldman Sachs does not want to admit a violation that it did not believe it committed and the firm will certain attempt to avoid a " 10 b violation".
To date, Goldman employee morale remains good. The Goldman representatives stated that as a group they are very proud of the Goldman staff during this difficult period. According to GS their employees are puiling together like a team under pressure. Perhaps not surprising, the partnership has closed ranks too and at Goldman's April 20, 2010 Managing Directors Eamings Call, Lloyd Blankfein received a standing ovation from his partners.

## Fallout from the ABACUS Civil Litigation

Management was cautiously optimistic about Q2 2010 performance. The investment banking business was clearly recovering and trading flows remains solid. According to Goldman, the client fallout from the CDO revelations has been small -- "...though today, we have seen no degradation of business." Assignments that Goldman had anticipated winning are being won and trade flows are in line with expectations. The firm's underwritings are being priced at market and the sales FICC and Institutional Equity sales teams are able to place client paper just as before. In fact, the only sector that has experienced a negative impact, albeit minimally, has been the firm's municipal and government business. Goldman reportedly has relationships with over 80 governments around the world and the firm has lost 1 or 2 pieces of business in this client sector since the announcement of the ABACUS case.

While the revenue impact of the litigation to date remains small, Goldman made it clear that the firm is reviewing not just its 144 issuance standards but also many of its other operating procedures related to clients. According to the firm, "Everything is on the table." Goldman is using this as an opportunity to review all of the firm's internal policies.

## Regulation and Gapital

According to management, the impact of new regulation is still very difficult to quantify. Scenarios can be envisioned where performance declines and scenarios can be envisioned where markets become more illiquid and that bid offer spreads widen and offset the new rules. According to the Goldman CFO, "We are war gaming a bunch of scenarios and I doubt any will be [perfectly] right." The only thing certain according to Goidman is the mandate for the industry to retain higher capital levels than recent history. If there are no increased revenues to go along with it, then there is going to lower ROE. Goldman reassured investors that "We are already running the firm as if things have already changed that capital uses is higher and higher levels of liquidity is needed." However, capital constraints could be imposing for competitors under certain scenarios, resulting in competitors unable to earn above their costs of equity. Under certain scenarios:

- Every compctitor stays in the business despite higher equity levels and the Street acts imationally on product pricing. Consequently, margins collapse and trading ROE falls sharply.
- All competitors stay in the market and margins modestly narrow. ROE falls but not precipitously.
- Competitors drop out of the business, competition may weaken and margins may actuaily widen. In this case ROE remains strong
- Goldman repurchased $\$ 2.27$ billion in capital last quarter despite the lack of clarity on where regulation will settle. On the firm's earnings conference call thcy assured that the repurchase was done with the approval of regulators. As capital continues to grow through eamings, the firm continues to hold plenty of capital, but the impetus of the recent buyback was to some extent offset capital offerings to employees in 2009. Though the firm has no more clarity than the market in terms of future regulation, they are comfortable with current levels given the firm's rate of capital growth and earnings.

The current draft of the Senate Bill will shift a large percentage of derivatives ${ }^{1}$ onto the exchanges. According to GS' estimate, approximately $75 \%-80 \%$ of notional derivatives will move onto exchanges. These "at-risk" products are characterized as the simple, vanilla OTC derivatives (i.e., fixcd-floating swaps, simple FX swaps and simple equity index swaps). Goldman stated that this business yields "razor thin margin ${ }^{2 \prime 2}$. Goldman admitted that the firm is at a historic disadvantage with this vanilla OTC business as their credit terms are particularly onerous. Goldman management pointed out that every trading firm in the OTC market takes some limited, unsecured exposure. The vast majority of OTC derivative clients must post margin at some unsecured trigger level of exposure. In 2006, GS was willing to give $\$ 400$ million in open credit exposure to AAA rated AIG. But GS has historically been less willing to compete on leverage by increasing the unsecured trigger point.

It is a common assumption that if a derivative product moves to an exchange, OTC bid offer spreads will narrow. However, GS management argued that this is not always the case and an exchange is not always a perfect solution to liquidity and pricing - markets may be narrow, trade volumes small and a contract strip may cease to trade beyond the first few contract dates. By way of example, Goldman pointed out that the introduction of the "Trace" system in the fixed income market led to fragmentation of the market and more frequent, albeit smaller, trades that did not generate significant trading costs savings.

[^2]May 4, 2010

Brad Mîntz (Senior Analysi) * brad.hintz ©

At this point, all that can be deduced is that the movement of derivatives to exchanges will set a standard initial margin ${ }^{3}$ and impose daily variation margin - essentially new regulation will be a $\operatorname{Reg} \mathrm{T}^{\prime \prime}$ for derivatives. This action would place Goldman and its more leveraged OTC competitors on a "level playing field", which may prove positive for GS and other conservative banks ${ }^{4}$. In a world where leverage is standardized, derivatives desks will be forced to compete not on open, unsecured credit exposure, but on execution speed and liquidity. This is a market dynamic that GS feels that it can successfully use to take market share.

Goldman argues that the highly profitable, tailored segment of the derivative business is unable go on an exchange due to low volumes or pricing difficulty. Alternatively, these high margin OTC products will likely be cleared through a common settlement venue, and based on the current draft of the Senate Bill, would have to be originated outside the bank (Section 1065). This would force banks to move their fixed income derivatives books from the bank subsidiary (that is FDIC protected and has access to the Fed window) to a new separatcly capitalized (and lower rated) derivatives subsidiary that would likely be guaranteed by the bank holding company. Goldman already operates its OTC fixed income derivatives book out of such a subsidiary and would not have to use new capital to support this subsidiary.

## Regulatory Uncertainty Threatens US Derivatives Market.

Admittedly, the outlook for derivatives is not certain according to the firm. Bernstein notes that regulated bank subsidiary of a bank holding company has higher credit ratings than the holding company. As a result, moving the derivatives book from the bank (higher ratings) to a new subsidiary guaranteed by the holding company (lower ratings) is unlikely to be popular with the current and prospective derivative counterparties of US banks.

One interpretation ${ }^{6}$ of the current Senate bill is that the holding company cannot provide a guaranty to a derivatives subsidiary. Without a parent guaranty, some OTC counterparties will be reluctant to enter into OTC derivatives with a much lower rated derivative subsidiary.
Exacerbating this potential credit rating problem is the impact of the new regulatory authority proposed to allow for the "wind up" of systemically important institutions. This new authority could effectively subordinate the bondholders of the bank holding companies. As a result, the major credit rating agencies have warned that bank holding company ratings may be reduced if the "wind up" authority is too onerous.
Bernstein believes that the OTC derivatives activities of US banks could face market share pressure related to lower credit rating of their derivative offerings relative to those of the major Europcan and Japanese banks which will be able to continue to trade derivatives with implied govemment supported within "too big to fail" commercial bank subsidiaries.

## Trading Responds to Prospective Regulatory Changes

Goldman is preemptively positioning its trading businesses for a changed business model of exchange listed products and higher capital charges - to succeed in the future, trading needs to be "nimble". Goldman wants to quickly take the skill that it has in its leading, individual trading products and transfer the intellectual property and technology to new products as market opportunities arise. As management stated, "we want to be fast and better than everyone else." The firm has set its goal on providing the broadest list of top tier

[^3]trading products and capabilities. It wishes to be an efficient and effective competitor in high frequency trading, equities, fixed income and FX.

When asked about the firm's ability to adapt to new regulation in its trading business, management argued that the entire market will be able to respond and evolve to these new mandates. Goldman is convinced that it will have the technology and flexible organization to quickly change its business model and adjust to the new market conditions. They argue products that are transferred to a clearinghouse can trade more easily and over time trading volumes may pick up and parallel markets could be established that trade against the listed futures market. Goldman intends to be able to profit from this potential outcome.

## The Key Regulatory Issues Facing the Industry

At this point, the industry is looking for certainty in new regulations. If a financial regulation bill is passed that gives broad authority to regulators to higher capital limits, establish sound business practices or constrain or ban certain business activities the industry would view it as a victory. However, Congress may not want to relegate interpretive responsibility to the bank regulators.
The industry is focusing on five large issues that could make statutory changes to the industry and cannot be easily changed: I.) the Consumer Financial Protection Agency; 2.) Section 106 which bans OTC derivatives from depository bank; 3.) the Volcker rule which prohibit and limit proprietary trading and private equity; 4.) the requirement for a swap dealer to act as a fiduciary when dealing with endowments, pensions and trusts; and 5.) the Pre-determination and Pre-announcement of Profit on each Derivative Trade.

## GS Business Ouflook:

## Sales \& Trading

- Q1 2010 FICC revenues were up $86 \%$ sequentially from a cyclically slow Q4, 13\% YoY. These FICC results were driven by solid performance for credit commodities and rates across all the major bond markets. The firm's revenue return on net assets (RRONA) was a strong $3.7 \%$, well above its long-term average of $1.6 \%$. Every business in trading is planning a "fair amount of hiring" for 2010.
- In equities, hedge funds have turned the comer from net redemptions to net subscriptions. Clients that wanted out of a hedge fund are now gone and new investors are committing new capital. Prime brokerage revenues are up, but the yield on balances is down. GS is cautiously optimistic that securities lending revenues will rise as rates increase.


## Investment Banking

- From a broad cycle perspective, Goldman confirmed that the market is entering the early stage investment banking rebound as industry revenues are off the bottom of last summer, "Admittedly regulatory uncertainty may [negatively] impact CEO confidence - and CEO confidence is a key factor in driving transaction activity but broadly speaking we are off the bottom". CEOs are becoming more optimistic about the US economy and the dialogue is certainly improving despite the lack of marked improvement in announced deal volumes. Management teams are surprised by the resilience in the economy
- The management team also stated that the private equity market is getting more active. Historically a "great time" for PE to invest is coming out of an economic down cycle as pools invested at these points typically have favorable investment returns. Investment banking headcount is expected to grow by $9 \%$ in 2010


## Valuation Methodology

Bernstein has found that the major brokerage firms' common stocks trade on a price-to-tangible book basis. Bemstein believes that the tangible book value of a securities firm is a "hard number" for these companies reflecting the industry's mark-to-market accounting discipline and the rapid turnover of brokerage firm balance-sheets. By comparison, forecasting the highly cyclical earnings is problematic and therefore price-to-earnings valuation ratios are not accurate or stable. The price targets are based upon a valuation model that takes into account Return on Equity (ROE) versus Ke (the CAPM-based cost of equity), credit rating and a variable that differentiates between the 1999-2000 internet bubble period and all other periods of history. The formula is:

## - P/TB (Banks) $\mathbf{= 1 . 3 5} \times$ Forecasted Tangible ROE NTM / Bank Industry K $\mathbf{z} \mathbf{- 0 . 2 1 1 2}$

Investors should note that this price-to-book valuation regression only explains $85 \%$ of the quarterly change in price-to-book of a bank or securities firm

## Risks

As investors learned from the Lehman Brothers Holdings and the Drexel Burnham Lambert bankruptcies, the most significant risk to any major broker-dealer is a loss of confidence in its name, especially in the credit markets. The major broker-dealers rely upon the ability to roll over their debt at reasonable interest rates in order to fund their balance sheets at gross leverage ratios of 15 to $20 x$. The inability to meet debt obligations will result in the failure of a broker-dealer. In order to prevent a liquidity issue, a broker-dealer can sell assets to raise cash, but in the illiquid markets of a 'tail event' this may be impossible.
The liquidity facilities provided by the Federal Reserve have provided a lender of last resort to Morgan Stanley and Goldman Sachs - but nonetheless, a loss of confidence can also destroy a firm's franchise and morale. Counter-parties tend to limit exposure to firms whose credit ratings face downgrades and are perceived as being in risk. So, in a crisis of confidence, while a firm may avert a liquidity event, the firm's brand name and ongoing business will also come under threat. A prolonged loss of confidence in a firm's name would significantly reduce the ability of its stock to achieve our share price target. Other key risks include rising net charge-off rates, rising asset impairment write-downs, lowered ability to generate tax benefits, and the potential for increasing government regulation and taxation of financial institutions which may constrict asset and leverage levels.
But today, the greatest strategic challenge facing Goldman Sachs today is the uncertainty of new regulations. The Bank of England, the Swiss Central Bank, the Federal Reserve, the FDIC, the OCC, the CFTC, the SEC, both U.S. Brokerage Houses of Congress and the Basel Committee have proposed new regulations and laws that will raise capital charges, limit balance sheets, increase liquidity, prohibit or limit some businesses and constrain risk taking. These new rules generally will negatively impact GS' fixed income, equities and commodity trading business and constrain private equity. The more severe the regulations the lower the ROE and the slower the revenue growth rate of the effected businesses

## Case 1:10-cv-03461-PAC

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- Bemstein rates stocks based on forecasts of relative performance for the next 6-12 months versus the S\&P 500 for stocks listed on the U.S. and Canadian exchanges, versus the MSCI Pan Europe Index for stocks listed on the European exchanges (except for Russian companies), versus the MSCI Emerging Markets Index for Russian companies and stocks listed on emerging markets exchanges outside of the Asia Pacific region, and versus the MSCI Asia Pacific ex-Japan Index for stocks listed on the Asian (ex-Japan) exchanges - unless otherwise specified. We have three categories of ratings:

Outperiorm: Stock will outpace the market index by more than 15 pp in the year ahead.
Market-Perform: Stock will perform in line with the market index to within $+/-15 \mathrm{pp}$ in the year ahead.
Underperform: Stock will trail the periormance of the market index by more than 15 pp in the year ahead.
Not Rated: The stock Rating, Target Price and estimates (if any) have been suspended temporarily.

- As of $05 / 03 / 2010$, Bernsiein's ratings were distributed as follows: Outperform - $46.6 \%$ ( $1.0 \%$ banking clients) ; Market-Perform $-46.9 \%$ ( $1.0 \%$ banking clients); Underperform - $6.5 \%$ ( $0.0 \%$ banking clients); Not Rated $-0.0 \%$ ( $0.0 \%$ banking clients). The numbers in parentheses represent the percentage of companies in each category to whom Bemstein provided investment banking services within the last twelve (12) months.
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- The following companies are or during the pasi twelve (12) months were cllents of Bernstein, which provided non-investment bankingsecurities related services and received compansation for such services GS / Goldman Sachs.
- An affiliate of Bemstein received compensation for non-investment banking-securities related services from the following companles Gs / Goldman Sachs.
- In the next three (3) months, Bernstein or an affiliate expects to receive or intends to seek compensation for invesiment banking services from GS / Goldman Sachs.

12-Month Rating History as of 05/03/2010
Ticker Ratling Changes
GS $\quad 0(\mathrm{RC}) 06 / 04 / 09 \quad M(R C) 1216 / 05$

Rating Buide: O-Outperform, M - Market-Perform, U-Underperform, N - Not Rated
Rating Actions: IC - Intiated Coveraga, DC - Dropped Coverage, RC - Rating Change


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| Background Regarding Goldman's Fraudulent Misconduct |
| :--- |
| - Goldman's \$550 million payment to the SEC - the largest fine in history as of that date; |
| - Goldman pays \$5 billion to Justice Dept. to settle all mortgage behavior from 2005-2007; |
| Goldman's admission in SEC Consent Decree that the Abacus marketing materials |
| contained "incomplete" information by not fully disclosing Paulson's role; |
| FINRA's finding that in Hudson "there were knowing and material omissions and |
| misstatements in the marketing materials . . . that masked a significant conflict of |
| interest with its clients," and a resulting \$80 million penalty; and |
| A federal jury verdict that Tourre aided and abetted Goldman's fraud in Abacus in |
| violation of Rule 10b-5. |

pıepuełS
Defendants' burden of persuasion by preponderance of the
evidence that: there was no price impact from statement or
its correction.
Waggoner v. Barclays, PLC 875 F.3d 79, 101,(2d Cir. 2017); see also
Halliburton Co. v. Erica P. John Fund, Inc., 134 S. Ct. 2398, 2417 (2004)
The Second Circuit Took No View on the "34 Dates" Evidence

Ark. Teachers Ret. Sys. v. Goldman Sachs Grp., Inc.,
United States Court of Appeals for the Second Circuit
March 15, 2017, Argued; January 12, 2018, Decided
7, Argued, January 12,201
Reporter
日79 F. 3 d 474 : 2018 U.S. App. LEXUS 810 - - Fed. Sec. L. Rep. (CCH) P99,952; 105 Fed. R. Evid. Serv. (Callaghan) 499; 99
Fed. R. Serv. 3 d (Callaghan) $932 ; 2018$ W. 385215
ARKANSAS TEACHERS RETIREMENT SYSTEM, WEST VIRGINIA INVESTMENT MANAGEMENT BOARD,
ARKANSAS TEACHERS RETIREMENT SYSTEM, WEST VIRGINIA INVESTMENT MANAGEMENT BOARD,
PLUMBERS AND PIPEFITERS PENSION GROUP, ILENE RICHMAN, individually and on behalf of all others
simiarly situated, PABLO ELIZONDO, HOWARD SORKIN, individually and on behalf of all others similarly situated,
similarly situated, PABLO ELUZONDO, HOWARD SORKIN, individually and on behalf of all others simiarly situated,
TIVKA BOCHNER, EHSAN AFSHANI, LOUIS GOLD, THOMAS DRAFT, individually and on behalf of all others
similarly situated, Plaintiffs-Appellees, v. GOLDMAN SACHS GROUP, INC., LLOVD C. BLANKFEIN. DAVID A.
similarly situated, Plaintiff-Appelees, v. GOLDMAN
VINIAR, GARY D. COHN, Defendants-Appellants.
Prior History: Defendants-Appellants Goldman Sachs Group, Inc., Loyd Blankfein, David A. Viniar, and Gary D.
Cohn, appeal from a September 24, 2015 order of the United States District Court for the Sor-
York (Crotty, J.), certtying a class of plaintffs who purchased shares of common stock in $G$ -
Inc., between 2007 and 2010 . Plaintiffs alleged that defendants made material misstateme
Inc., between 2007 and 2010. Plaintiffs alleged that defendants made material misstateme
efforts to avoid conflicts of interest, and that those misstatements caused the value of their
efforts to avoid conflicts of interest, and that those misstatements caused the value of their
establish the predominance of class-wide issues under Federal Rule of Civil Procedure $23 / \mathrm{b}$
the rebuttable presumption of reliance established in Basic Inc $V$ Levingon. $485 U S .224 .10 \mathrm{~F}$ the rebuttable presumption of reliance established in Bosic Inc V, Levinson, $485 \mathrm{US} .224,10 \mathrm{i}$
2d 194 (1988). In light of this Cour's recent pronouncement that defendants seeking to rebut t
t must do so by a preponderance of the evidence, see Waggonerv. Barclays PLC, 875 F $3 d 7$
and for the additional reasons stated herein, we VACATE the District Court's order and
proceedings consistent with this opinion.

Core Terms
stock, misrepresentation, defendants', misstatements, class certification, market price, securitii
shares, conflicting interest, stock price, predominance, transactions, investors, preponderance un-
class action, companys, traded, buy, internal quotation marks, rebutting a presumption, burden of pers
class action, companys, traded, buy, internal quotation marks, rebutting a presumption, burden of
member, materiality, issues, fraud-on-the-market, plaintifts', Secunties, requirements, conclusive
Case Summary
Overview
HOLDINGS: [1]-Defendants s
Uverview
HOLDINGS: [1]-Defendants s fraud claim must do
so by a preponderance
defendants failed to rebur une oasic presumpuon vecause mey ora not conclusively prove a complete absence of
defendants failed to rebur une dassc presumpuon oecause mey ora not conclusively prove a complete absence of
price impact, it was unclear to the court whether the district court required more of defendants than a
preponderance of the evidence; [2]-The district court erred in declining to consider defendants' evidence because,
contrary to the district court's characterization of their evidence, defendants did not present a truth on the market
defense.

| How Can Defendants Rebut the Presumption? |
| :--- | :--- |
| - Not Statistically Significant |
| - Stock Decline Due Entirely to Non-Fraud Information |
| - No new information related to the fraud that corrected the |
| misstatements |
| Halliburton-Asbestos verdict was new information related to the |
| fraud that corrected the misstatements |
| Defendants could not show entire decline due to non-fraud |
| Halliburton specific information $\quad$Erica P. John Fund, Inc. v. Halliburton co., <br> 309 F.R.D. 251 (N.D. Tex. 2015) |


| Defendants' Experts Admit that Goldman Suffered Statistically |
| :---: | :---: |
| Significant Drops on the Three Corrective Disclosure Dates |


| Defendants Cannot Rebut the Presumption Because New Information Caused Price Impact |  |
| :---: | :---: |
| - | 22 pages of detail in 4/16/2010 SEC Complaint that Goldman was engaged in fraudulent conduct that violated its conflict of interest policies and its Business Principles. |
| - | Numerous Goldman and ACA emails revealed for the first time that Goldman's previous denials we false, it was engaged in conflict of interests and not putting clients' interests first. |
| - | Emails show Goldman affirmatively misled ACA (collateral manager that was also long the ABACUS that Paulson was also long due to his purchase of the equity tranche. |
| - | Emails show Goldman affirmatively misled investors IKB, ACA and ABN in ABACUS about Paulson's selecting assets - marketing materials said ACA was sole asset selector. |
| $\bullet$ | Severity of misconduct led to SEC lawsuit, DOJ fraud investigation and SEC Hudson investigation. |
| - | Market participants recognized that Goldman’s misconduct violated its Business Principles and Co Policies. |
|  | 7 |



Defendants' Expert Dr. Gompers Admitted that the SEC Complaint

|  |  |  |
| :---: | :---: | :---: |
| Market Participants Recognized that Goldman's Misconduct |  |  |
|  |  |  |
| $\qquad$ $\qquad$ before the firm. No. 1." charges . . . . <br> SECTION: BUSINESS NEWS <br> LENGTH: 1214 words <br> HEADLINE: Fraud charge deals big blow to Goldman's image <br> BYLINE: By STEVENSON JACOBS, AP Business Writer <br> In its corporate profile, the company says its culture distinguishes it from other firms and "helps to make us a magn That culture is summed up in the firm's "14 Business Principles," which preach an almost militant philosophy of putir <br> Now, it's that very philosophy that has been questioned by the government. <br> "Our clients' interests always come first," the company says on its website under the heading, "Goldman Sachs Bus <br> Investors are already betting the legal troubles will hurt Goldman's finances. The company's shares plunged 13 per |  |  |
|  |  |  |




| Market Participants Recognized that Goldman's Misconduct |
| :--- | :--- |
| Violated Its Business Principles and Conflict Policies |

Goldman Acknowledged Internally that its Conduct Caused the Stock Price Decline


| Market Participants Recognized that Goldman's Misconduct |
| :--- |
| Violated Its Business Principles and Conflict Policies | | 6/10/2010 Decline: |
| :--- |
| The market learned that Goldman, while shorting the Hudson 2006-1 |
| CDO, was marketing Hudson by telling investors that "Goldman Sachs has |
| aligned incentives with the Hudson program." Then, it was reported that |
| Hudson was also the target of a probe by the SEC - and Goldman's stock |
| fell 2.21\% on 6/10/2010. Finnerty found that market commentators |
| reported, e.g.: |
| - Wells Fargo, 6/10/2010: "[M]edia reports of a second SEC investigation into Goldman's CDO |
| maketing practices, specifically the Hudson 2006-1 CDO, pushed Goldman shares down as |
| much as 4\% on [June 10, 2010]." 5/22/2015 Finnerty Report, 91143 |


|  |
| :---: |
| Dr. Finnerty's economic analysis and event study demonstrate price impact on the corrective disclosure dates. <br> - Dr. Finnerty explained that Defendants' statements and omissions on the first day Class Period inflated Goldman's stock price - i.e., kept the stock trading at a hig than it would have been had the truth been known - and subsequent statemen omissions further inflated and maintained inflation. 5/15/2015 Finnerty Decl., 8/7/2015 Finnerty Report, ๆी\\| 3(b), 10-14. <br> - Dr. Finnerty concluded that the statistically significant price declines on the thre disclosure dates "establish price impact." 5/15/2015 Finnerty Decl., ๆ\|ी 202-205 <br> - Dr. Finnerty connected the stock declines to the alleged misrepresentations. 8/7 Finnerty Report, $\ddagger$ ी 13 (c), 38-42, 131-133; 5/22/2015 Finnerty Report, 9 ी $111 . a-c$, 147. |


|  |
| :---: |
| Lapin v. Goldman Sachs Grp., Inc., 506 F. Supp. 2d 221 (S.D.N.Y. 2006) <br> Lapin v. Goldman Sachs \& Co., 254 F.R.D. 168 (S.D.N.Y. 2008) <br> - Goldman misrepresented its research analysts as "independent" and unbiased and failed to disclose analysts' conflict of interest with Goldman's investment banking clients to help Goldman compete and other future business. <br> - "The third category consists of statements noting Goldman's high ethical standards and its compl industry rules and regulations (e.g., '[w]e are dedicated to complying fully with the letter and spirit rules and ethical principles that govern us,' SAC P 124)." - Exact Same Statement $\mathbb{1} 154$ Goldman Report <br> - Goldman "argues that knowledge of the alleged fraud in this case was widespread among investo stock, and thus the Basic presumption is rebutted." <br> - Articles, media interview and customer complaint-but Goldman denied misconduct. <br> - "[I]nvestors were also being fed reassuring statements by Goldman, implying that the criticisms dis the articles and the complaint did not apply to Goldman" and defending the "independence and of GS research. <br> - Denials by Goldman - "was reinforced by Goldman in several announcements made both contemporaneously with and post-dating the news articles and the filing of the Stefansky complain |
|  |  |

## Lapin v. Goldman Sachs Grp., Inc., 506 F. Supp. 2d 221 (S.D.N.Y. 2006) <br> Lapin v. Goldman Sachs \& Co., 254 F.R.D. 168 (S.D.N.Y. 2008)

Because the Court finds that GS has failed to show that the truth about the alleged conflicts at GS (and the result, if any,
that those conflicts had on stock price) "credibly entered the market," Basic, 485 U.S. at 248-49, the Court finds that the
reliance link is not severed, and the Basic presumption is not rebutted on these grounds.
Goldman's stock price declined "once its true research practices began to emerge" via announcements of a
NY Attorney General investigation into Goldman, and two weeks later the announcement of investigations
by the SEC and DOJ.
Waggoner v. Barclays PLC, 875 F.3d 79 (2d Cir. 2017)
New York Attorney General suit is fraud-related corrective disclosure. "[T]he regulatory action and any ensuing fines
were a part of the alleged harm that Plaintiffs suffered."

|  | Denials: 2007-2010 |
| :---: | :---: |
| $\begin{aligned} & \text { March 26, } 2007 \text { Forbes } \\ & \text { 15) } \end{aligned}$ | "There is no conflict" snaps Goldman spokesman. (ECF No. 193- |
| Dec. 2, 2007 ©benctu Ilork ©imes | "The Goldman Sachs spokesman said that the company routinely shorts the securities it underwrites and said that this is disclosed." (ECF No. 193-19) |
| Dec. 6, 2007 <br> FINANCIAL TIMES | "[T]here is no evidence that Goldman did [anything] wrong ... I do not believe Goldman broke insider trading laws. It would be stupid to risk its reputation ... it 'brushes' off ... accusations of conflicts of interest." (ECF No. 193-21) |
| Dec. 11, 2007 DOWIONES | Questions raised by the author about Goldman's disclosures Goldman's previous denials. (ECF No. 193-22) |




| Denials: 2007-2010 |  |
| :---: | :---: |
| Nov. 1, 2009 | A Goldman spokesman claimed its practices were to "hedge" and "investors were fully informed." Professor John Coffee - "the legality of Goldman's maneuvers depends on what its executives knew at the time." "Asked whether Goldman's bond sellers knew about the contrary bets, spokesman Duvally said the company's mortgage business 'has extensive barriers designed to keep information within its proper confines." (ECF No. 193-36)] |
| Oct. 30 - <br> Nov. 2/3, 2009 <br> THE WWULSTREET JOORNAL | Mixed information- Paulson denials: "We didn't create any securities ... it was a negotiation; we threw out some names, they threw out some names but the bankers ultimately picked the collateral." "But the deals weren't created for us, we just facilitated it . . . ." (ECF No. 193-37)] |



|  | Denials: 2007-2010 |
| :--- | :--- |
| Dec 24, 2009 business insider "Goldman Blasts The New York Times's Hit Job" |  |
|  | (Gompers 4/20/2015 Depo. Ex. 12) |


|  | Denials: 2007-2010 |
| :---: | :---: |
| Jan 14, 2010 ¢ ¢odman | "Mr. Blankfein does not believe, nor did he say, that Goldman Sachs had behaved improperly in any way. In fact, his answer to the various statements explained the market making function and how our practices were entirely appropriate." (Blankfein Depo. Ex. 7) |
| $\text { Jan. 13, } 2010$ <br> DOWIONES | "[Blankfein] replied that Goldman didn't have a legal obligation to disclose when it was betting against the securities it was selling." (ECF No. 193-48) |
|  | "Viniar said that Goldman had done nothing wrong." (ECF No. 19351) |
| Mar. 10, 2010 © The Ǎcu Ilork eimes | Goldman "said it saw no conflicts in its various roles." (ECF No. 193-54) |


| 2007-2010 Goldman Reassured Investors that It Complied with Conflict Policies and Business Principles |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Plaintiffs claim that Goldman's conduct in the Abacus, Hudson, Anderson and Timberwolf I <br> CDO transactions made the following disclosures materially misleading: <br> - "[W]e increasingly have to address potential conflicts of interest, including situations where our servi particular client or our own proprietary investments or other interests conflict, or are perceived to interest of another client . . . ." (Complaint, 『ा134 (Form 10-K)) <br> - "We have extensive procedures and controls that are designed to (Complaint, $\operatorname{TIT134,} 154$ (Form 10-K)) will follow." (Complaint, Ф154 (Goldman Annual Report)) Annual Report)) $\qquad$ address conflicts of interest <br> - "Our clients' interests always come first. Our experience shows that if we serve our clients well, our <br> - "Integrity and honesty are at the heart of our business." (Complaint, $\mathbb{\Phi} 289$ (Goldman Annual Repo <br> - "Most importantly, and the basic reason for our success, is our extraordinary focus on our clients T1154 (Viniar's Statements on Goldman's Investor Conference Call)) <br> - "Our reputation is one of our most important assets." (Complaint, $\mathbb{T} 154$ (Form 10-K)) <br> - "We are dedicated to complying fully with the letter and spirit of the laws, rules and ethical princip us. Our continued success depends upon unswerving adherence to this standard." (Complaint, IT |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |


| SEC Fraud Lawsuit and News of Subsequent Investigations Reveal |  |
| :--- | :--- |
| Goldman's Numerous and Repeated Denials No Longer Credible |  |
| New Information on 4/16/2010 |  |
| - Internal Goldman emails show Goldman engaged in fraudulent conduct in violation of |  |
| its conflict of interests and business principles |  |
| - Goldman lied to ACA, IKB and ABN Amro. |  |
| New Information on 4/30/2010 |  |
| - Following disclosure of emails about GS misconduct in Timberwolf, Hudson and |  |
| Anderson, DOJ investigation based on "different evidence" than SEC Abacus lawsuit - |  |
| similar to Lapin. |  |
| New Information on 6/10/2010 |  |
| - SEC investigation into Hudson - severity of conduct similar to Lapin. |  |





| Defendants Fail to Rebut Presumption |
| :--- | :--- |
| -Defendants' experts (and Dr. Finnerty) agree the stock price declines were statistically <br> significant |
| Defendants' experts (and Dr. Finnerty) agree that the SEC Fraud Complaint, DOJ fraud <br> investigation, and additional SEC fraud investigation caused the stock price declines |
| New information that corrected Defendants' prior statements |
| To deny certification, Defendants ask the Court to hold that the SEC fraud lawsuit (and the |
| fraud investigations) are not fraud related and had no impact on Goldman's stock price |



Education

1987-Present
2017-Present
$2013-2017$
$2003-2013$
$2001-2003$
$1997-2001$
$1995-1997$
$1989-1995$
$1986-1989$
$1982-1986$
$1977-1982$
Academic Experience
Fordham University Gabelli School of Business, Professor of Finance and founding Director of the Master of Science in Quantitative Finance Program

## Business Experience

AlixPartners, LLP, Academic Affiliate, Financial Advisory Services Group
AlixPartners, LLP, Managing Director, Financial Advisory Services Group PricewaterhouseCoopers, LLP, Partner, Financial Advisory Services Group Houlihan Lokey Howard \& Zukin, Director
McFarland Dewey \& Co, General Partner
College Savings Bank, Executive Vice President and Chief Financial Officer
Lazard Frères \& Company, Vice President, Corporate Finance Department
Morgan Stanley \& Co. Inc., Associate, Corporate Finance Department
Qualifications
Professional Associations
Chair of the Trustees, Eastern Finance Association (2009-2010), Trustee (2008-Present), President (20072008), and Director (2005-2008) President, Fixed Income Analysts Society (2006-2007), and Director (2001-2009) Director, Financial Management Association (1991-1999, 2005-2007, 2011-2013) Editor, Financial Management (1993-1999)
Editor, FMA Online (2001-2010)
Best Corporate Finance Paper, Southern Finance Association

Achievements in Excellence Team Award, AlixPartners, LLP

| Professional Associations |  |
| :---: | :---: |
| Chair of the Trustees, Eastern Finance Association (2009-2010), Trustee (2008-Present), Presiden 2008), and Director (2005-2008) |  |
| President, Fixed Income Analysts Society (2006-2007), and Director (2001-2009) |  |
| Director, Financial Management Association (1991-1999, 2005-2007, 2011-2013) |  |
| Editor, Financial Management (1993-1999) |  |
| Editor, FMA Online (2001-2010) |  |
| Awards |  |
| Marshall Scholar | 1971 |
| Gladys and Henry Crown Award for Faculty Excellence, Fordham Business School | 1997 |
| Best Investments Paper, Southern Finance Association | 2001 |
| Best Corporate Finance Paper, Southern Finance Association | 2006 |
| Bene Merenti Medal, Fordham University | 2007 |
| Fixed Income Analysts Society Hall of Fame | 2011 |
| Achievements in Excellence Team Award, AlixPartners, LLP | 2014 |
| Ashley Greater New York Community Service Award | 2018 |

## Selected Books and Publications

Douglas R. Emery, John D. Finnerty, and John D. Stowe, Corporate Financial Management, 5th ed. Wohl
Publishing, Morristown, NJ, 2018.
John D. Finnerty, Shantaram P. Hegde, and Christopher B. Malone, "Fraud and Firm Performance: Keeping (No. 2, 2016), pp. 151-172.
John D. Finnerty, "What Lessons Can We Learn from Recent Derivatives Litigation and Regulatory
Enforcement Actions?" Securities Regulation Law Journal (Winter 2016), pp. 361-427.
John D. Finnerty, Cameron D. Miller, and Ren-Raw Chen, "The Impact of Credit Rating Announcements on Credit Default Swap Spreads," Journal of Banking and Finance (June 2013), pp. 2011-2030.
John D. Finnerty, "A Closer Look at Correction for False Discovery Bias When Making Multiple Comparisons," Journal of Forensic Economics (December 2009), pp. 55-62.
John D. Finnerty and Gautam Goswami, "Determinants of the Settlement Amount in Securities Fraud Class
Action Litigation," Hastings Business Law Journal (Summer 2006), pp. 453-486.
John D. Finnerty and George M. Pushner, "An Improved Two-Trader Model for Measuring Damages in
Securities Fraud Class Actions," Stanford Journal of Law, Business \& Finance (Spring 2003), pp. 213-263.
John D. Finnerty and Douglas R. Emery, Debt Management, Harvard Business School Press, Boston, 2001.
Prentice
Qualifications
Selected Expert Testimony Experience

| In re American International Group, Inc. Securities Litigation | U.S. District Court for the Southern District <br> of New York |
| :--- | :--- |
| In Re Par Pharmaceutical Securities Litigation | U.S. District Court for the District of New <br> Jersey |
| In re STEC, Inc. Securities Litigation | U.S. District Court for the Central District <br> of California Southern Division |
| In re The Bear Stearns Companies, Inc. Securities, Derivative, | U.S. District Court for the Southern District <br> and ERISA Litigation |
| Carpenters Pension Trust Fund of St. Louis, et al. v. Barclays York |  |



Dr. Gompers' "34 Dates Evidence" (and Defendants' Additional

Flaws in Dr. Gompers' analysis include:

- Most of the articles only raised possibility of conflicts of interest.
- Dr. Gompers failed to consider confounding information in the articles. 8/7/15 Finnerty Report 9 \|ी15-37; 5/15/15 Finnerty Reb. Decl. $\ddagger$ qी176-186, Ex. 6.
Reb. Decl. $\|$ \| 176 -186, Ex. 6.
- Almost all articles contained market commentary that Goldman's conduct was legal and appropriate. Finnerty Report $\uparrow \| 15-37$; 5/15/15 Finnerty Reb. Decl. $\uparrow \uparrow 176$-186, Ex. 6.
- The SEC lawsuit (and investigations) revealed new information that Goldman violated its Business Principles and Conflict Policies that had artificially inflated Goldman's stock price. 5/22/15
 Note: A complete analysis on the information released on each of the 34 dates is provided in Exhibit 6 of the Rebuttal Declaration of John D. Finnerty, dated May 15, 2015. The information released on two additional dates is discussed in the Rebuttal Expert Report of John D. Finnerty, dated August 7, 2015. The information released on two more additional dates was only submitted very recently by defendants' counsel. 43-55.

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| Dr. Gompers" "34 Dates Evidence" (and Defendants" Additional |
| :--- |
| Articles) Were Not Corrective Disclosures |
| Examples: |
| • $12 / 6 / 07$, "Goldman's Glory May be Short-lived," Financial Times |
| "Goldman has been more aggressive than any other bank in putting the three [advisory, securities, and <br> investment businesses] together - it often advises a company on a transaction, finances it and invests its <br> own money. That regularly puts Goldman in delicate spots.... It often faces accusations of conflicts <br> of interest over its overlapping roles but it brushes them off by saying that its job is to <br> 'manage conflicts'." |
| ○ Article did not disclose the fact that Goldman had failed to manage its conflicts of interest and had |
| $\quad$violated its business principles risking damage to its reputation. |
| ○ Article merely raised possibility of conflicts of interest. |
| ○ Goldman explicitly denied any wrongdoing. |
| ○ The author did not believe Goldman did anything wrong. |
| "But there is no evidence that Goldman did wrong by issuing Mr. Hatzius's research or conversing <br> with Mr. Paulson about financial conditions, if it actually did the latter. I do not believe that Goldman <br> broke insider trading laws. It would be stupid to risk its reputation in this way and it is <br> anything but stupid." |

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## Additional

Evidence" (and Defendants' Not Corrective Disclosures
"34 Dates Dr. Gompers' " 12/11/07
Business

Business News | "New York Attorney General Andrew Cuomo has already subpoenaed Wall Street. Next: Congress, the |
| :--- |
| SEC and other state regulators will demand answers, such as why was Goldman shorting the SIVs they |
| were selling, many of which quickly went into default? What did they fail to disclose? Sounds like a |
| massive conflict of interest with major liabilities." |

- Article did not disclose the fact that Goldman had failed to manage its conflicts of interest and had violated its business principles risking damage to its reputation.
Goldman previously explicitly denied any wrongdoing in articles published on December 3,
2007, "The Long and Short of It at Goldman Sachs," The New York Times;' December 5,
2007, "Market Insight: Goldman's Risk Control Offers Right Example of Governance,"
Financial Times; and December 6, 2007, "Goldman's Glory May be Short-lived," Financial
Times.
AlixPartners
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> Additional Evidence" (and Defendants' Not Corrective Disclosures
> - 11/2/09, Zuckerman (2009), The Greatest Trade Ever

Book did not disclose the fact that Goldman had failed to manage its conflicts of interest and had violated its business principles risking damage to its reputation. - Book contained mixed information - including Paulson's denials: "we didn't create any securities" and "it was a negotiation; we threw out some names, they threw out some, but the bankers ultimately picked the collateral."

Author conveyed that Goldman denied any wrongdoing.
In two articles published on the same day ("Profiting From the Crash," The Wall Street Journal; and "How Goldman Secretly Bet on the U.S. Housing Crash," McClatchy Washington Bureau), Goldman explicitly denied any wrongdoing.

Excerpt suggested that the relevant trading by Goldman was done as a market maker supplying liquidity to the market.
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Dr. Gompers" "34 Dates Evidence" (and Defendants' Additional
Articles) Were Not Corrective Disclosures
Examples:

- $12 / 5 / 09$, "Economy's Loss Was One Man's Gain," The New York Times, Book Review
$\begin{aligned} & \text { "Mr. Paulson persuaded Goldman Sachs and Deutsche Bank to put together securitized collateralized } \\ & \text { obligations (known as C.D.O.'s), which were filled with nasty mortgages that he could then short. Of } \\ & \text { course, nobody told the suckers -- er, investors -- who bought those C.D. O.'s that they were designe } \\ & \text { help a man who wanted the most toxic mortgages imaginable so he could profit when they went sour. }\end{aligned}$
o Article did not disclose the fact that Goldman had failed to manage its conflicts of inte
and had violated its business principles risking damage to its reputation.
o No new information in article that was not in book - old news.
o Article focused on Paulson, not Goldman, and contains no discussion of structuring of
Abacus or what was misrepresented to Abacus investors.
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## Additional

Defendants"


- CIBC World Markets, Analyst Report January 29, 2007 (Ex. 19 (Porten Ex.9))

| "According to Viniar, Goldman was very careful about the conflicts or perceived conflicts that |
| :--- | :--- |
| emerge, and actually has a full time partner monitoring these conflicts." |

[^4]$$
\text { Merrill Lynch, Analyst Report July 28, } 2008 \text { (Ex. } 20 \text { (Porten Ex.8)) }
$$

| Despite the fairly constant undertone of criticism over the firm's embrace of principal activities, we believe |
| :--- |
| that Goldman has actually tended its customer-oriented business carefully, which explains why at |
| the end of the day, the world tends to come to Goldman, and the absence of major conflict problems. |


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Goldman's denials prior to April 16,2010 and its denial on April 16,2010 are fundamentally different. Before
the SEC lawsuit, Goldman's denials were credible and therefore believed by the market.
News articles published prior to April 162010 that Dr. Gompers focused on did not disclose the fact that
Goldman had actually failed to manage its conflicts of interest and had violated its business principles, which
would necessarily result in subsequent harm to Goldman's reputation, its client relationships, and therefore
its business.
Therefore, whenever Goldman denied the allegations in the news articles discussing Goldman's potential
conflicts, market participants were not able to determine that Goldman had (a) engaged in any fraudulent
conduct by failing to manage its conflicts of interest effectively and (b) concealed this misconduct.
In contrast, the announcement of the SEC enforcement action on April 16,2010 revealed, contrary to
Goldman's previous denials, the full details and severity of Goldman's mismanagement of its conflicts of
interest and violation of its business principles as demonstrated by the Abacus 2007 -AC1 CDO.
Therefore, Goldman's denials in response to the SEC's enforcement action announced on April 16, 2010
were no longer credible.
The April 30, 2010 disclosure of a DOJ criminal investigation and the June 10,2010 disclosure of an SEC
enforcement investigation further conveyed to the market the seriousness and severity of Goldman's
mismanagement of its conflicts of interest and Goldman's violations of its business principles.
These announcements further harmed Goldman's reputation and undermined the credibility of Goldman's
previous denials.
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Dr. Choi Failed to Demonstrate
that the Entire Stock Price
Decline on the Corrective
Disclosure Dates Was Due Solely
to Non-Fraud-Related
Information
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> confounding information (or non-allegation-related information).

- But my analysis demonstrates:

o "[T]he news concerning the regulatory enforcement actions on the Disclosure Dates cannot be
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Additional Reasons Dr. Choi Fails to Show a Complete Lack
of Price Impact
o Dr. Choi's qualitative analysis of the circumstances surrounding the announcements of the
Goldman regulatory actions on the three corrective disclosure dates is speculative,
unrooted in financial analysis, and contradicted by contemporaneous market
commentary.
> also cannot show a complete lack of price impact.


$$
\begin{aligned}
& \text { Event Study and Economic } \\
& \text { Analysis Demonstrate Price } \\
& \text { Impact on the Three Corrective } \\
& \text { Disclosure Dates }
\end{aligned}
$$

$$
\begin{aligned}
& \text { Case 1:10.cy-03461-PAC Document } 215-1 \text { Filed } 07 / 27118 \text { Page } 22 \text { of } 28 \\
& \text { Event Study and Economic Analysis Demonstrate Price } \\
& \text { Impact on the Three Corrective Disclosure Dates } \\
& \text { - Defendants' misstatements and omissions on the first day of the Class Period } \\
& \text { inflated Goldman's stock price - i.e., kept the stock trading at a higher price } \\
& \text { than it would have been had the truth been known - and subsequent } \\
& \text { statements and omissions further inflated and maintained inflation. } 5 / 25 / 15 \\
& \text { Finnerty Reb. Decl., } \$ 205 ; 8 / 7 / 15 \text { Finnerty Reb. Decl., } 93(b), 10-14 \text {. }
\end{aligned}
$$

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| Effective <br> Disclosure Date | Information Disclosed | Actual Return | Abn. Return | Sig |
| :---: | :---: | :---: | :---: | :---: |
| April 16, 2010 | - The SEC announced that it had filed a complaint against Goldman charging Goldman with securities fraud as demonstrated by Abacus 2007-AC1. The 22-page SEC Complaint revealed various conflicts including that Paulson, with economic interests directly adverse to investors in the CDO, played a significant role in the portfolio selection process. <br> - The new information revealed that Goldman's marketing materials for Abacus 2007-AC1 misled investors by failing to disclose Paulson's involvement in selecting the reference portfolio of the CDO and by misrepresenting that the reference portfolio was selected by ACA. <br> - The new information also revealed that Goldman had misled ACA that ACA's and Paulson's interests were aligned by failing to disclose to ACA Paulson's massive short position. <br> - The SEC's fraud charge provided new information regarding the severity of Goldman's conduct and revealed that Goldman had been engaged in undisclosed conflicts of interest and had violated its business principles. | -12.79\% | -9.27\% | *** |
| April 26, 2010 | - The Senate Subcommittee on Investigations announced the release of four Goldman internal emails, which indicated that it had made money shorting the mortgage market. | -3.41\% | -1.68\% |  |

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Price

| Effective Disclosure Date | Information disclosed | Actual Return | Abn. Return | Sig |
| :---: | :---: | :---: | :---: | :---: |
| April 30, 2010 | - The Wall Street Journal reported that the Department of Justice (DOJ) had opened a criminal investigation (centered on "different evidence" than the SEC's civil case). <br> - In connection with Goldman's allegedly fraudulent conduct, the Senate Subcommittee on Investigations had previously criticized the Abacus 2007-AC1, Hudson 2006-1, Timberwolf 1, and Anderson 2007-1 CDO transactions. <br> - The Wall Street Journal article provided significant new information regarding the severity of Goldman's conflicts of interest and violations of its business principles in contrast to Goldman's allegedly false and misleading statements. | -9.39\% | -7.75\% | *** |
| June 10, 2010 | - Bloomberg reported on June 9 that the Hudson 2006-1 CDO was also being investigated by the SEC. <br> - The second SEC probe into a Goldman CDO transaction provided significant new information regarding the severity of Goldman's conduct and revealed that Goldman had been engaged in undisclosed conflicts of interest and violated its business principles in contrast to Goldman's allegedly false and misleading statements. | -2.21\% | -4.52\% | ** |

[^5]Case 1:10-cv-03461-PAC
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Market Commentary in Response to the April 16, 2010 Corrective Disclosure Supports Price Impact Analysis


"...the premium has dissolved because the market is worried, not about lawsuits or politics, but about Goldman's core
business. The Abacus affair has highlighted the conflicts intrinsic to the investment banking business. But historically
Goldman has managed those conflicts well."
Conversely, evidence of poorly managed conflicts is especially dangerous to Goldman. Some damage has already
been done.


| Market Commentary in Response to the April 29, 2010 Corr Disclosure Supports Price Impact Analysis |
| :---: |
|  |  |
|  |  |
|  |  |
|  |  |

- Fitch Ratings, May 5, 2010
"The Rating Outlook revision to Negative incorporates recent legal developments and ongoing regulatory
challenges that could adversely impact Goldman's reputation and revenue generating capacity.... And for
financial services companies, particularly those dependent on the capital markets, reputation is critically
important."


## Bank of America Merrill Lynch, April 30, 2010


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| $\qquad$ Case 1:10-cv-03461-PAC Document 215-1 Filed 07/27/18 Page 28 of 28 |
| :--- |
| Market Commentary in Response to the June 9, 2010 Corrective |
| Disclosure Supports Price Impact Analysis |
| - Wells Fargo, June 10, 2010 |
| Near-term challenges for Goldman's stock were likely to persist, although it believed that a settlement with <br> the SEC in the future would be positive for Goldman's stock. It noted that media reports of a second SEC <br> investigation into Goldman's CDO marketing practices, specifically the Hudson 2006-1 CDO, pushed |



Lead Plaintiffs' Summary of Argument in
Further Support of Class Certification
July 26, 2018
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## $+$

Price maintenance


- The Second Circuit affirmed this
- See In re Vivendi, S.A. Sec. Litig., 838 F.3d 223, 259 (2d Cir. 2016)
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Alleged Misstatements Contained Omissions to
Maintain the Goldman "Premium," Cont'd
Professor Finnerty explained yesterday that
this is a price maintenance case
- What caused inflation in Goldman's stock price "was
a failure to disclose the conflicts of interest and the
failure to manage those conflicts of interest, the
failure to adhere to the business principles and the
failure to disclose the risk to Goldman's
reputation associated with not managing its conflicts
of interest." $7 / 25 / 18$ Hearing Tr. at 196:13-17
- Goldman's 14 misstatements and omissions between
June 14, 2007 and April 16, 2010 maintained price
inflation in Goldman's stock price ld. at 199:3-9



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Introduction - Gompers

$$
\begin{aligned}
& \text { Gompers's theory is that all information on } 36 \text { dates } \\
& \text { should have in fact revealed the false and misleading } \\
& \text { nature of alleged misstatements/omissions. } \\
& \text { He argues the fact that Goldman's stock did not } \\
& \text { decline on those dates shows there was no inflation } \\
& \text { introduced into the stock by those } \\
& \text { misstatements/omissions, i.e., no price impact. } \\
& \text { He needed to show that those 40+ articles were in } \\
& \text { fact corrective to prove that. } \\
& \text { He did not. }
\end{aligned}
$$

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Defendants' 36 Dates Evidence Fails to Meet
Their Burden - Overview
Evidence fails to carry Defendants'
burden because:

1. Most of the 36 Dates articles includ
2. Most of the 36 Dates articles included
conflicting information that blunted any
potential negative price reaction:
a. Goldman's denials of any wrongdoing
and/or

b. | similar statements by the authors or |
| :--- |
| others indicating Goldman's conduct was |
| not illegal or improper |

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 The 36 Dates articles were not corrective

- These artic - These articles at most discussed Goldman's "potential" conflicts,
consistent with the alleged isstatements
"i.e., they sugg
theoretical


nan failed to "address" them
Case 1:10-cv-03461-PAC Document 215-2 Filed 07/27/18 Page 10 of 47
Defendants' 36 Dates Evidence Fails to Meet
Their Burden - Overview, Cont'd

3. Some were not about conflicts at all
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Defendants' 36 Dates Evidence Fails to Meet
Their Burden - Overview, Cont'd

- In total:
-28 contain Goldman denials
• 12 left
-22 characterized conduct as Iegal or appropriate
$\cdot 5$ left (due to overlap)
-30 of the 40 merely raised the possibility of
conflicts
$\cdot 1$ left
-4 of the 40 Articles are not about conflicts at all
$\bullet 0$ left

| ［1707 $\dagger$ |  | ［70\％ 27 | ［170］ 87 |  |
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- Defs' Ex. 3, which listed only 16 articles with
such denials understates-by almost half-
the actual number see ECF No. 193-3
- Dr. Finnerty opined that such denials blunted
any negative stock price reaction


Defendants' Excerpts, e.g.:
-"[R]egulators will demand answers, such as why was Goldman shorting
the SIVs they were selling, many of which quickly went into default? What
did they fail to disclose? Sounds like a massive conflict of interest...." Defs"
Ex. 22 at 4 (ECF No. 193-22)
> Merely raised the possibility of conflicts
Article conveyed opinions based on previously public info:
- Merely raised questions that "demand[ed] answers" - not facts showing
actual conflicts, much less tying them to impact on Goldman's reputaiton
- Speculated that "regulators will demand answers" and posed questions, not conclusions; conceded "hearings could drag on a long time" such (id.)
- One of two articles the Second Circuit said this Court "should consider"
December 24, 2009: "Banks Bundled Bad Debt, Bet Against
It and Won," New York Times (Defs' Ex. 39)

$$
\begin{aligned}
& \text { - "Goldman kept a significant amount of the financial bets against securities in } \\
& \text { Hudson, so it would profit if they failed.... Congress [and] the [SEC] ... appear to be } \\
& \text { looking at whether securities laws or rules of fair dealing were violated." Defs Ex. } 39 \text { at } 3 \\
& \text { They Omit, e.g.,: } \\
& \hline \text { - Merely raised the possibility of conflicts: "the investigations are in the early phases" } \\
& \text { - Goldman's denials: } \\
& \text { - "Goldman and other Wall Street firms maintain there is nothing improper about } \\
& \text { synthetic C.D.O.'s, saying that they typically employ many trading techniques to } \\
& \text { hedge investments and protect against losses. Id. at } 2 \\
& \text { - Goldman spokesman DuVally "said many of the C.D.O.'s ... were made to satisfy } \\
& \text { client demand for such products" and "said that clients knew Goldman might } \\
& \text { be betting against mortgages linked to the securities." Id. at } 3 \\
& \text { - "The Goldman salesman said that [Hudson] C.D. O. buyers were not misled } \\
& \text { because they were advised that Goldman was placing large bets against the } \\
& \text { securities. 'We were very open with all the risks...."Id. at } 3
\end{aligned} \text { - Goldman made more false denials in a press release the same day (ECF No. 196 at 11) }
$$

Defendants' Excerpts, e.g.:
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Gompers conceded:
Dr.
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- When asked whether such denials were "relevant
information to investors," he also admitted that "it
is relevant about whether or not the investors
thought that the actions were legal"
- Id. at 91:11-16

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- Dr. Gompers also selectively excerpted his
descriptions of the articles on the 36 Dates
in his charts (Exs. $5 \& 6$ to his report) to
omit Goldman's denials contained therein.
He repeatedly testified, e.g.,:
-"The denial -- this portion of the article is not there [in
Ex. 6]"
- Such denials were "not included in what I excerpted
in Exhibit 6"
• 7/25/18 Hearing Tr. at 85:17-90:18

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Defendants' 36 Dates Evidence Fails to Meet
Their Burden, Cont'd - For example, even after the first 13 of
Gompers's articles were published, an analyst
from Merrill Lynch observed on July 28, 2008:
- "[W]e believe that Goldman has actually tended its
customer-oriented businesses carefully, which
explains why at the end of the day, the world tends to
come to Goldman, and the absence of major conflict
problems."
•Pls' Ex. 21 (ECF No. 201-7)
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Don't Matter

The
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- Choi's theory begins from the undisputed fact that
there are three statistically significant stock drops on
the revelation of information about Goldman's
unmanaged conflicts of interest and related
enforcement activity
- So he must explain it away $100 \%$
- He has to prove that all of the decline was not due to
revelation that Defendants' conflict management and
Business Principles Statements were false.
- This is what he has failed to show
- In fact, the information disclosed on these three dates
did affect Goldman's stock price
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- "[M]erely suggesting that another factor also
contributed to an impact on a security's
price does not establish that the fraudulent
conduct complained of did not also impact
the price."
- Barclays, 875 F. 3d at 104-05 (emphasis in
original)
Choi's
Cont'd

Choi's
Cont'd
- Choi ignored the fraudulent conduct in 113 of the 117 SEC
enforcement actions
- Resulted in four cases with one obvious outlier

| Defendant Name | Abnormal Return |
| :--- | ---: |
| Life Partners Holdings, Inc. | $-17.09 \%$ |

- Choi created a too-small sample size of only four other SEC

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- Dr. Choi's analysis is critically flawed for the following reasons:
- The alleged misconduct in the four enforcement actions he cites is not comparable to Goldman's
In measuring abnormal returns, Dr. Choi did not perform proper event studies, because he failed to check for confounding news (and adjust for its impact on the company's stock price).
The sample size of four is too small to yield any meaningful conclusions. In particular, this very
small sample has a very wide range of abnormal returns, which extends from $-17 \%$ to $-3 \%$. Defendant Name $\quad$ Abnormal Return

| Defendant Name | Abnormal Return |
| :--- | ---: |
| Life Partners Holdings, Inc. | $-17.09 \%$ |
| BankAtlantic Bancorp, Inc | $-8.13 \%$ |
| Stifel, Nicolaus \& Co. | $-3.73 \%$ |
| Houston American Energy Corp | $-3.34 \%$ |

> Dr. Choi Failed to Demonstrate that the Entire Stock Price Decline on the Corrective Disclosure Dates Was Due Solely to Non-Fraud-Related Information

- His two-sample t-test is improper; the -9.27\% abnormal return is not a "sample," and it is improper to perform a two-sample t-test with such small samples and with a population that is not normal. But even if considering Dr. Choi's flawed $95 \%$ confidence interval, the result demonstrates that the 4/16/10 SEC lawsuit "in and of itself" did not fully explain Goldman's 9.27\% stock drop.
- Dr. Choi ignored his own prior research recognizing that the announcement of an enforcement action inherently conveys information about the underlying misconduct.
- Dr. Choi ignored market commentary linking the SEC fraud lawsuit to the alleged false statements about conflict policies and business principles.

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Contsa
(Cont'd): Finnerty also analyzed
analyst commentary:

- Citi, 4/16/10: "[T]he SEC alleges that Goldman misled
$=$
ur view.
No. 170-11)

$$
\begin{aligned}
& \text { serious charge . . . [T]he reputational damage could } \\
& \text { be considerably greater." Id. }
\end{aligned}
$$

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- Fitch Ratings, 5/5/10: "The Rating Outlook revision to
Negative incorporates recent legal developments and
ongoing regulatory challenges that could adversely
impact Goldman's reputation and revenue
generating capacity." $5 / 22 / 15$ Finnerty Rep. $\Phi 121$
- Bank of America Merrill Lynch, $4 / 30 / 10$ : "Our
downgrade is prompted by news reports ... including
the Wall St. Journal indicating that federal prosecutors
have opened an investigation of GS in connection with
its trading activities. . . ." $5 / 22 / 15$ Finnerty Rep. $\mathbb{T} 126$


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| Price Impact Has Been Proven Beyond a Preponderance of the Evidence, Cont'd |  |
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- $\mathbf{1 2 . 7 9 \%}$ stock drop, statistically significant
April 29, 2010: Press reported DOJ’s criminal
case two days after the Senate
named Anderson, Timberwolf, and Hudson
statistically significant
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[^1]:    ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST

[^2]:    ${ }^{1}$ Bernstein estimates that Wall Street's OTC derivative revenues in fixed income makes up fifteen percent of total fixed income revenues. In Equities, OTC derivatives make up twenty percent of net revenues. Derivatives are a relatively higher margin business than cash trading with pretax margins of thirty to thirty five percent.
    ${ }^{2}$ Pricing ranges from sixteenths of one percent to thirty seconds and appears to be going to sixty fourths

[^3]:    ${ }^{3}$ Goldman pointed out that the biggest new poster of margin would be the GSEs. This fact likely means that the US govemment will seek an exemption from the posting of thargin for its outstanding OTC derivatives.
    ${ }^{4}$ Goldman did not name the less conservative banks.
    ${ }^{5}$ Section 106 requires that a bank move all the OTC derivatives out of a financial institutions 180 days from now all
    ${ }^{6}$ The interpretation depends on the law firm doing the review.

[^4]:    Merrill Lynch, Analyst Report March 13, 2007 (Ex. 20 (Porten Ex.7))
    Conflict Management skill maximizes franchise value
    The consistency with which the firm has avoided crossing the line and damaging its reputation is
    such that it must be doing something right. The conflict management process is clearly taken extremely
    seriously at the firm, since it is viewed as not just a by-product but a key pillar of the firm's franchise
    business. Though the process is highly structured and rigorous, $\mathbf{2 0 \%}$ of the conflicts end up at the
    top of the firm.
    Goldman manages conflicts, rather than simply avoiding them, in order to maximize the value of
    its franchise...

[^5]:    Note: ${ }^{* * *}, * *, *$ denote statistical significance at the $1 \%, 5 \%$, and $10 \%$ levels, respectively.

[^6]:    AlixPartners

