

# US Equity Views: Hung bridges and deathly hallows

## Sentiment, fundamentals, and three trade ideas

### Investors fear a collapse in housing, consumer spending, LBO wave

Prime mortgage fears and \$420 billion of loan commitments spark sell-off.

### Market response has been equity sell-off, bond rally, volatility spike

S&P 500 drops 5% in one week, 10-year yields plunge 50 bp, VIX hits 23.

### Concerns are legitimate but company fundamentals remain strong

Internal profit forecasts led 192 firms to hike dividends an average of 17%.

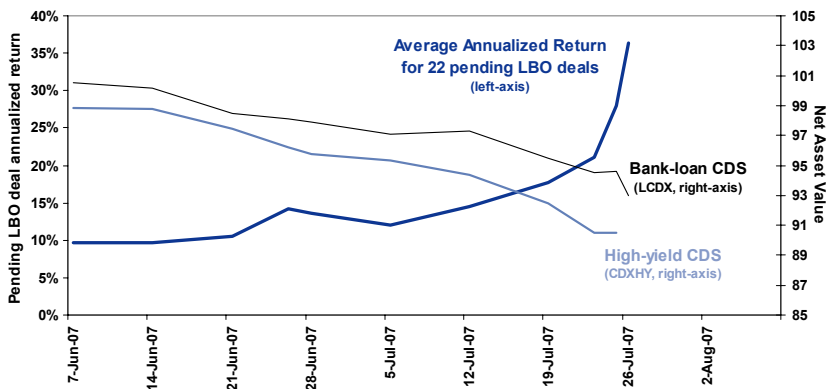
### Positive 2Q surprises, upward 2007 and 2008 EPS revisions

Investors expected 4% EPS growth in 2Q; actual results tracking above 8%.

### Where to invest now: 3 tactical trades to profit from the sell-off

1. Buy 22 pending LBO deals for 36% average annualized return
2. Buy 20 most Concentrated Hedge Fund holdings <GSTHHFHI>
3. Buy US stocks with high percentage of foreign sales <GSTHINTL>

### Average annualized return for 22 announced LBO deals has soared to 36%



Source: Goldman Sachs Research

**David J. Kostin**  
(212) 902-6781 | david.kostin@gs.com Goldman, Sachs & Co.

**Robert Koyfman, CFA**  
(212) 357-1744 | robert.koyfman@gs.com Goldman, Sachs & Co.

**Caesar Maasry**  
(212) 902-9693 | caesar.maasry@gs.com Goldman, Sachs & Co.

The Goldman Sachs Group, Inc. does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. For Reg AC certification, see the text preceding the disclosures. For other important disclosures go to [www.gs.com/research/hedge.html](http://www.gs.com/research/hedge.html). Analysts employed by non-US affiliates are not required to take the NASD/NYSE analyst exam.

## Hung bridges and deathly hallows

---

**Investor skittishness turned to panic this week.** The thought of a housing slump extending into 2009 and \$420 billion of loan funding commitments stuck on financial institution balance sheets alarmed portfolio managers. Risk aversion quickly spread from sub-prime mortgages, to corporate credit, to common stocks. The re-pricing of credit has jumped to equities, in some cases undeservedly.

**Sentiment over the near-term looks poor. However, fundamentals generally appear solid.** Robust economic growth outside the US continues, corporate balance sheets are in excellent shape, earnings results have exceeded analyst expectations, EPS revisions have been positive, and valuation remains attractive. But like J.K. Rowling's protagonists, the battle between investor sentiment and company fundamentals will continue until the demise of one of the participants.

**We have three trade recommendations for investors:**

- 1. Buy 22 pending LBO deals for 36% average annualized return.** It is impossible even for a wizard like Harry Potter to reconcile two facts: Stocks cannot BOTH melt down because the market fears financial institutions will have to fund and hold levered loan commitments while at the same time shares of target companies sell off on the belief the same transactions will not close. This inconsistency presents an attractive entry point for investors. The stock market assigns a roughly 62% probability that the deals will be consummated. We believe the likelihood of closing is much higher.
- 2. Buy the 20 most Concentrated Hedge Fund holdings (Bloomberg <GSTHHFHI>).** Stocks in the S&P 500 with the highest hedge fund ownership concentration trailed the market by an average of 113 bp during seven previous pullbacks. But stocks in the hedge fund holdings basket outpaced the S&P 500 during the month following the pullback on 6 of 7 occasions. The illiquidity of some of these positions may explain why during sharp sell-offs the shares lag. S&P 500 has retreated 4.5% since peaking on July 19<sup>th</sup> while the "crowded" hedge fund positions have dropped more than 8%, a difference of more than 352 bp. When the rebound comes, these stocks should outperform.
- 3. Buy US stocks with high percentage of foreign sales (Bloomberg <GSTHINTL>).** The world is growing faster than the US, and investors should buy stocks that capitalize on this trend. Our basket of 45 stocks in nine sectors is expected to generate faster sales and faster earnings than the S&P 500 but the shares trade at a market multiple. See our July 22<sup>nd</sup> Portfolio Passport report

## Investors fear a collapse in housing, consumer spending, LBO wave

---

The hope that mortgage delinquency problems would be contained to sub-prime borrowers was shattered when a three-hour 2Q earnings conference call by Countrywide Financial Corp. (CFC, Sell) revealed that weakness extended across the housing industry. The company slashed 2007 earnings guidance by 25% and presented data showing an unprecedented rate of home price declines on a national level. Nearly 50% of the Metropolitan Statistical Areas (MSA's) in the US had year/year declines in home prices over the past 12 months. Countrywide's data also revealed that falling single-family house prices corresponded with higher delinquency rates regardless of the credit scores of the borrower. Conventional first liens and home equity lines of credit exhibited similar default characteristics as sub-prime loans.

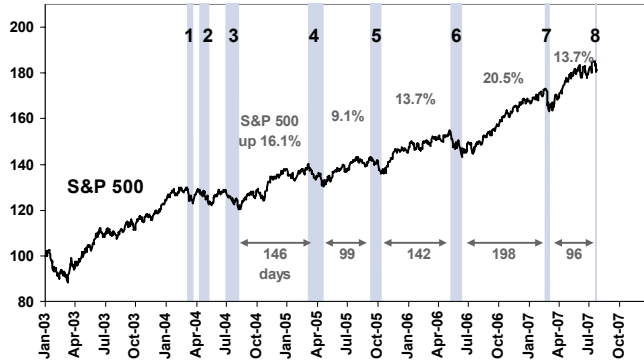
For credit investors the news was no less calming on the corporate loan front. There is presently \$420 billion of committed funding to private equity transactions in the US and Europe. Demand for levered loans has decreased sharply as CLO activity has largely dried up with less warehousing by investment banks and with de-leveraging by credit funds. The terms of many of the commitments are tighter than current market levels, so the institutions that made the commitments may be forced to fund and hold the loans. Other outcomes may include renegotiating terms, invoking pricing flex, rebating fees to investors, and pulling transactions. As our European strategy colleagues note, the increased credit spreads are not a function of higher defaults as is the case in the US sub-prime mortgage market, but reflect increased risk aversion coupled with oversupply and lack of demand.<sup>1</sup>

---

<sup>1</sup> See *Strategy Expresso! Credit Congestion*, Peter Oppenheimer et. al., July 26, 2007.

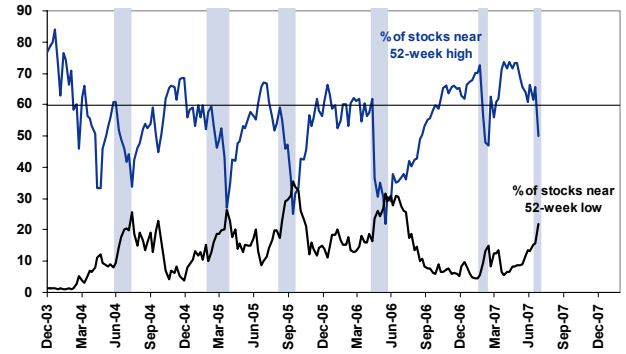
# Market response has been equity sell-off, bond rally, volatility spike

**Exhibit 1: 96 days and 13% rally before the 5% sell-off**  
as of July 26, 2007



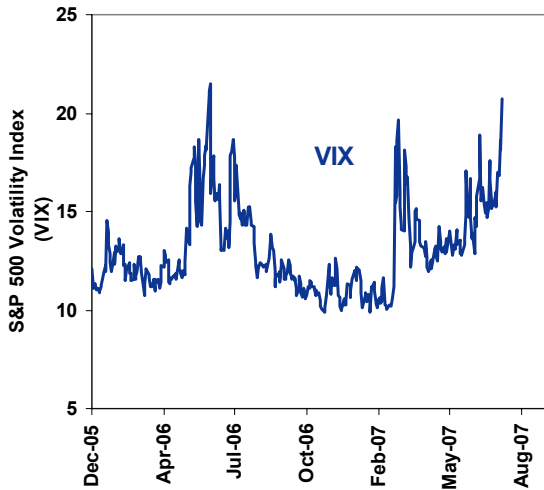
Source: Compustat, Goldman Sachs Research

**Exhibit 2: 50% of stocks trade within 10% of 1-year high**  
as of July 26, 2007



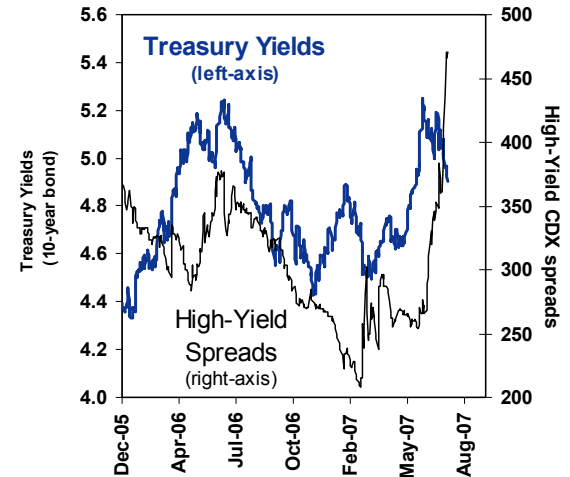
Source: Compustat, Goldman Sachs Research

**Exhibit 3: Volatility spiked to levels not seen since 2006**  
as of July 26, 2007



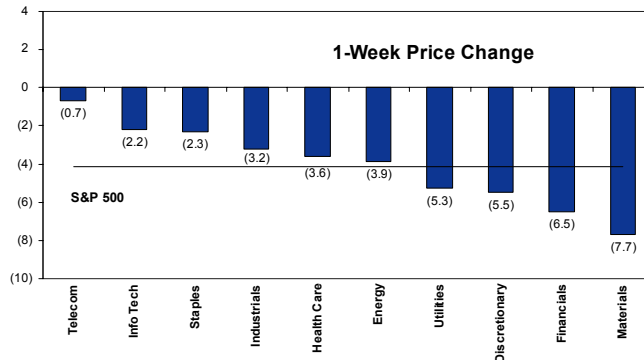
Source: Goldman Sachs Research

**Exhibit 4: Treasury yields down 50bp; High yield up 200**  
as of July 26, 2007



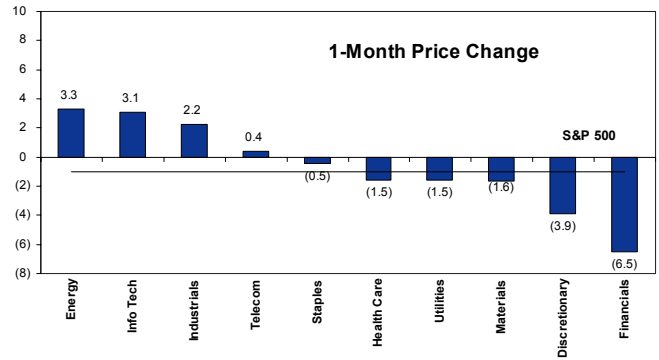
Source: Goldman Sachs Research

**Exhibit 5: Financials & Materials DOWN in last week**  
as of July 26, 2007



Source: Compustat via IDC, Goldman Sachs Research

**Exhibit 6: Energy, Tech, & Industrials UP in last 4 weeks**  
as of July 26, 2007



Source: Compustat via IDC, Goldman Sachs REsearch

## Concerns are legitimate but company fundamentals remain strong

The weakness in US housing and its spillover effect on the mortgage market are serious issues that merit careful attention. But the residential downturn has not derailed the durable profit growth that is one of the hallmarks of the current economic expansion. More than 50% of the S&P 500 has reported 2Q results and 47% of the companies have exceeded expectations by more than one standard deviation from consensus, slightly better than the average over the past eight quarters (see Exhibit 7).

Heading into 1Q 2007 reporting period, analysts expected 4% year/year earnings growth but the actual results reached 9%. Heading into 2Q 2007 reporting season, analyst forecasts once again pointed to 4% year/year growth (see Exhibit 8). Our view has been that EPS growth would reach 8%-9%. With half of the stocks in the S&P 500 companies having reported results we are pleased to spotlight that 2Q year/year earnings growth is tracking above 8% (see Exhibit 9). Valuation also appears attractive led by Health Care and Information Technology. Financials now ranks third (see Exhibit 10).

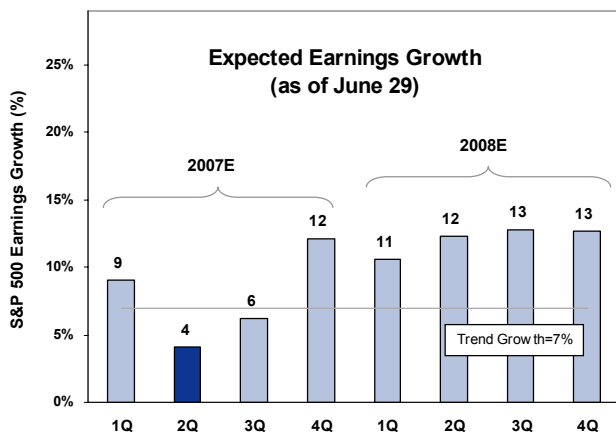
**Exhibit 7: 2Q 2007 earnings surprises**  
as of July 25, 2007

	Percent Reported	Std Dev Surprises (a)		
		Positive	Negative	In-Line
Telecom Services	11 %	100 %	0 %	0 %
Health Care	51	67	4	30
Utilities	9	67	0	33
Industrials	62	48	15	36
Consumer Staples	44	47	6	47
Energy	47	47	7	47
Information Technology	58	47	9	44
Financials	62	46	21	33
Materials	64	39	17	44
Consumer Discretionary	42	35	14	51
<b>S&amp;P 500 (equal-weighted)</b>	<b>50 %</b>	<b>47 %</b>	<b>13 %</b>	<b>40 %</b>
<b>S&amp;P 500 (cap-weighted)</b>	<b>58 %</b>	<b>55 %</b>	<b>13 %</b>	<b>31 %</b>



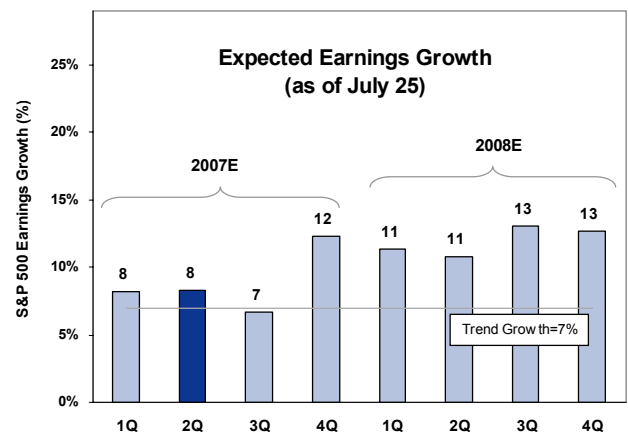
Source: Compustat via IDC, Goldman Sachs Research.

**Exhibit 8: Expected year/year earnings growth**  
as of June 29, 2007



Source: FirstCall via FactSet, Goldman Sachs Research

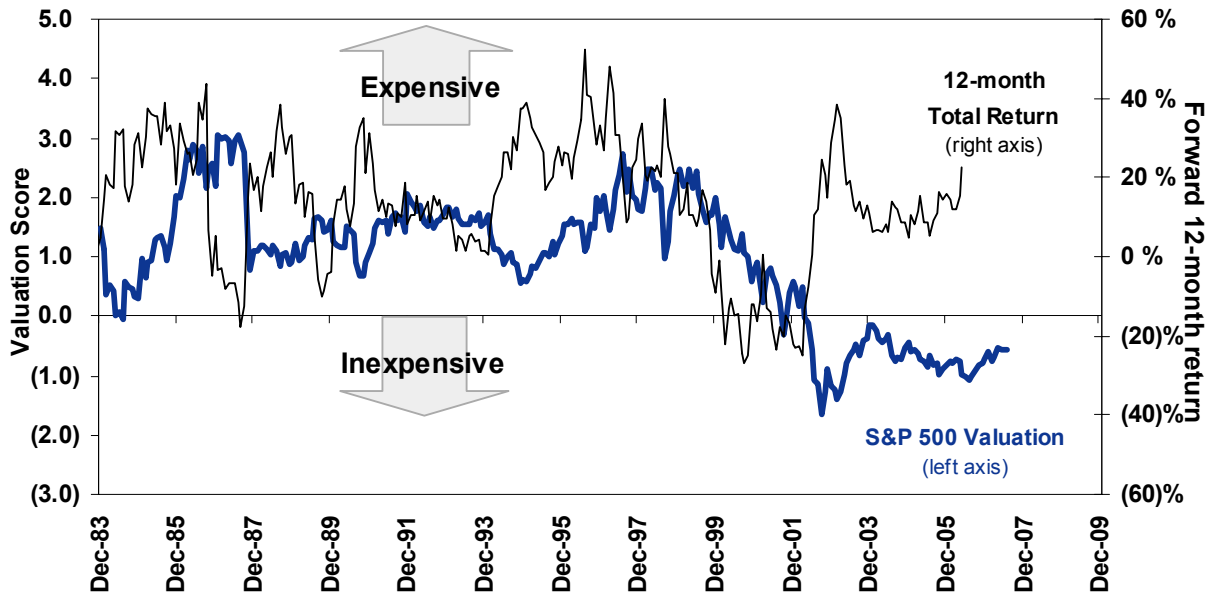
**Exhibit 9: Expected year/year earnings growth**  
as of July 26, 2007



Source: FirstCall via FactSet, Goldman Sachs Research

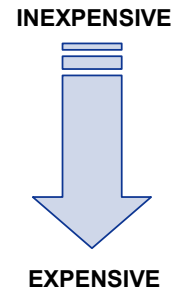
**Exhibit 10: S&P 500 Valuation**

as of July 26, 2007



**Goldman Sachs US Valuation Monitor**

	EV/ Sales	EV/ EBITDA	Price/ Book	FCF Yield	P/E	PEG Ratio	Implied Growth	Average Score (a)
<b>S&amp;P 500</b>	(0.6)	(1.1)	(0.7)	(0.2)	(1.0)	(0.2)	(0.2)	(0.6)
<b>Health Care</b>	(1.6)	(1.3)	(1.3)	(1.9)	(1.2)	(0.6)	(0.8)	(1.2)
<b>Information Technology</b>	(0.4)	(0.6)	0.0	(1.2)	(0.7)	(0.5)	(0.7)	(0.6)
<b>Financials</b>	NM	NM	(1.1)	NM	(0.1)	(0.3)	(0.1)	(0.4)
<b>Consumer Staples</b>	0.4	0.2	(1.9)	(0.0)	0.2	0.6	(0.3)	(0.1)
<b>Telecommunication Services</b>	(0.7)	1.2	(0.0)	(0.1)	0.1	0.0	0.6	0.2
<b>Energy</b>	0.6	(0.7)	2.0	0.1	(0.0)	(0.4)	0.1	0.2
<b>Materials</b>	1.1	0.4	1.6	0.2	0.5	(1.5)	1.0	0.5
<b>Industrials</b>	1.4	0.9	1.6	0.4	1.2	0.6	0.9	1.0
<b>Utilities</b>	NM	0.9	1.9	0.6	1.8	(0.2)	2.0	1.2
<b>Consumer Discretionary</b>	1.2	0.9	1.6	0.9	2.0	2.1	1.1	1.4



**Current Valuation Metrics**

	EV/ Sales	EV/ EBITDA	Price/ Book	FCF Yield	P/E	PEG Ratio	Implied Growth
<b>S&amp;P 500</b>	1.7	9.8	3.0	4.0 %	15.2	1.3	-
<b>Health Care</b>	1.7	11.0	3.9	5.3 %	16.2	1.4	(2.5)pp
<b>Information Technology</b>	2.6	13.0	4.8	4.4	21.2	1.4	(2.5)
<b>Financials</b>	NM	NM	2.0	NM	11.2	1.1	(0.2)
<b>Consumer Staples</b>	1.5	10.8	4.0	4.0	17.6	1.7	(0.5)
<b>Telecommunication Services</b>	2.3	7.8	2.5	4.9	15.8	1.9	4.2
<b>Energy</b>	1.4	6.2	3.3	4.0	12.3	1.3	0.7
<b>Materials</b>	1.6	8.8	3.3	4.5	15.7	1.1	7.6
<b>Industrials</b>	2.3	12.4	3.6	4.3	16.7	1.4	1.9
<b>Utilities</b>	NM	8.5	2.5	2.5	16.1	1.9	11.4
<b>Consumer Discretionary</b>	1.4	10.0	2.7	2.1	19.3	1.4	5.9

Note: S&P valuation calculated on an absolute basis, sector valuations calculated relative to S&P 500. Valuation score calculated as the average number of standard deviations seven valuation metrics differ from 10-year averages: EV/Sales, EV/EBITDA, P/B, FCF yield, P/E, PEG, and Implied Growth.

Source: Goldman Sachs Research.

# Where to invest now: 3 Tactical Trades to profit from the sell-off

## Trade #1: Buy Pending LBO deals for 36% annualized return

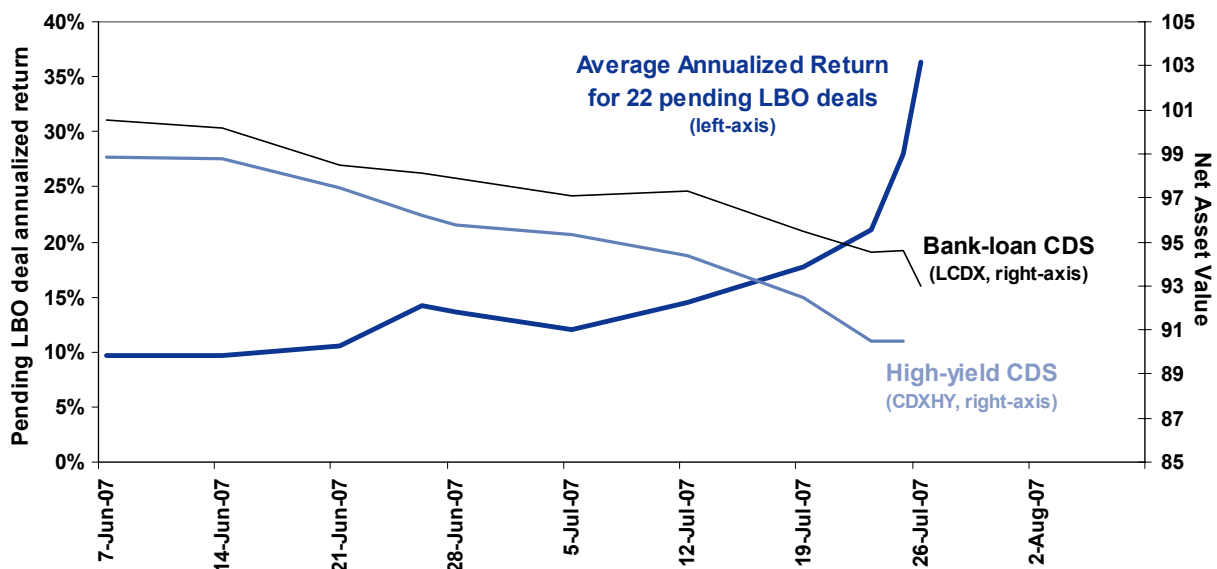
The reason most frequently cited by investors for the sharp pullback in the stock market this week is concern that major financial institutions have extended too much credit at too favorable terms to too many private equity firms. In a typical market overreaction, the high yield and bank loan windows have slammed shut, at least for the time being.

**Commitments that were originally meant to be syndicated or sold into structured vehicles are now the obligation of banks and brokerage firms.** Between 2003 and 2006, the US leveraged loan market doubled to around \$1.3 trillion. Currently, roughly \$320 billion of commitments have been made to fund private equity transactions in the US (comprised of \$220 billion of loans and \$100 billion of bonds) with another \$100 billion of committed funding in Europe.

As our European strategists noted in their report on *Credit Congestion*, many of the funding commitments have been made at tighter spreads than the market is currently pricing in. They have identified four potential outcomes to these loans: renegotiate terms of the funding; invoke pricing flex to clear transactions; rebate fees to investors by selling the loan to the market at a discount; and postpone syndications until conditions improve. The illiquidity of this situation is the source of the term "hung bridge" in reference to a bridge loan that doesn't make it to the proverbial takeout on the other side of the river.

**Investors who believe that banks and brokerage firms will fund their loan commitments to private equity firms should buy the shares of the target companies.** If private equity firms have access to the funds then the previously announced LBO transactions should close as scheduled. If stock prices are declining because the market fears financial institutions will have to fund and hold levered loan commitments, then it is inconsistent that the shares of the target s trade at a steep discount assuming no funding will be available to complete the buyouts. This inconsistency presents an attractive entry point for investors. The stock market assigns a roughly 62% probability that the deals will be consummated. We believe the likelihood of closing is much higher. Accordingly, we recommend investors buy a basket of 22 stocks that are the targets of pending transactions.

**Exhibit 11: Average annualized return until closing for 22 pending LBO deals has soared to 36%**  
as of July 26, 2007

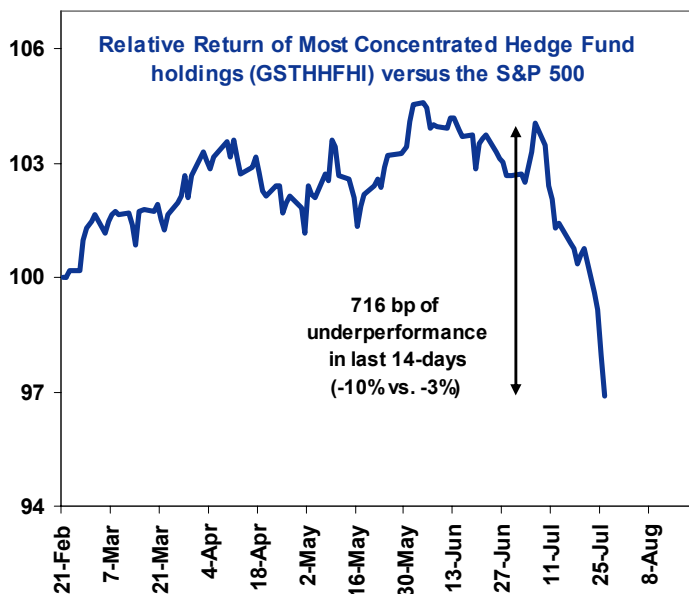


Source: Goldman Sachs Research.

## Trade #2: Buy the 20 Most Concentrated Hedge Fund Holdings

Stocks in the S&P 500 with the highest hedge fund ownership concentration lagged during seven previous pullbacks by an average of 113 bp. But stocks in the basket outpaced the S&P 500 during the month following the pullback on 6 of 7 occasions (see Exhibit 12). The illiquidity of some of these positions may explain why during sharp sell-offs the shares lag. S&P 500 has retreated 4.5% since peaking on July 19<sup>th</sup> while the concentrated hedge fund holdings have dropped 8%, a difference of more than 352 bp. When the rebound comes, these stocks should outperform (see Exhibit 13).

**Exhibit 12: Concentrated Hedge Fund positions underperform during pullbacks, but outperform shortly thereafter** as of July 26, 2007



Concentrated Hedge Fund Basket Performance during Pullbacks				1-month following Pullback
Period	S&P 500	Absolute	Relative	
(1) Mar 5 - Mar 24, 2004	(5.6)%	(4.8)%	78 bp	249 bp
(2) Apr 12 - May 10, 2004	(5.0)	(7.6)	(258)	328
(3) Jun 30 - Aug 6, 2004	(6.6)	(5.8)	83	5
(4) Mar 7 - Apr 20, 2005	(7.0)	(7.6)	(64)	223
(5) Sep 9 - Oct 13, 2005	(5.1)	(9.2)	(414)	103
(6) May 9 - Jun 13, 2006	(7.4)	(10.3)	(285)	(179)
(7) Feb 26 - Mar 5, 2007	(5.1)	(4.5)	67	210
July 20 - Present	(4.5)	(8.1)	(352)	
<b>Average</b>	<b>(6.0)</b>	<b>(7.1)</b>	<b>(113) bp</b>	<b>134 bp</b>

Source: Goldman Sachs Research.

**Exhibit 13: Concentrated hedge fund holdings should outperform during a recovery (Bloomberg <GSTHFFHI>)** as of July 26, 2007

S&P 500: Twenty MOST CONCENTRATED Hedge Fund Holdings (Bloomberg Ticker: GSTHFFHI)								% of equity cap owned by Hedge Funds
Company	Ticker	Rating	Sector	Sub-sector	Equity Cap (\$ bil)	Total Return 1-wk	Total Return 1-mo	
Sears Holding Corp.	SHLD	Neutral	Consumer Discretionary	Department Stores	22	(8)	(21)	52
LSI Logic	LSI	Neutral	Information Technology	Semiconductors	3	(9)	(13)	45
AutoZone Inc.	AZO	Neutral	Consumer Discretionary	Automotive Retail	9	(6)	(1)	42
Wendy's International	WEN	Not Rated	Consumer Discretionary	Restaurants	3	(11)	(17)	36
Goodyear Tire & Rubber	GT	NC	Consumer Discretionary	Tires & Rubber	5	(17)	(18)	33
AutoNation, Inc.	AN	Neutral	Consumer Discretionary	Automotive Retail	4	(8)	(9)	27
Fidelity National Info Services	FIS	Not Rated	Information Technology	Data Processing & Outsourced Services	10	(8)	(3)	24
Express Scripts	ESRX	Neutral	Health Care	Health Care Services	14	(8)	(2)	19
Circuit City Group	CC	Not Rated	Consumer Discretionary	Computer & Electronics Retail	2	(11)	(21)	19
Clear Channel Communications	CCU	Not Rated	Consumer Discretionary	Broadcasting & Cable TV	18	(3)	(4)	18
PMC-Sierra Inc.	PMCS	Neutral	Information Technology	Semiconductors	2	(0)	4	18
Consol Energy Inc.	CNX	Buy	Energy	Coal & Consumable Fuels	7	(15)	(17)	18
Harrah's Entertainment	HET	Not Rated	Consumer Discretionary	Casinos & Gaming	16	(2)	(2)	18
Allegheny Energy	AYE	NC	Utilities	Electric Utilities	9	(5)	(2)	18
Temple-Inland	TIN	Not Rated	Materials	Paper Packaging	6	(11)	(8)	18
RadioShack Corp	RSH	Neutral	Consumer Discretionary	Computer & Electronics Retail	4	(5)	(16)	17
NCR Corp.	NCR	NC	Information Technology	Computer Hardware	10	(2)	(1)	17
Bausch & Lomb	BOL	Not Rated	Health Care	Health Care Supplies	4	(4)	(4)	17
Cb Richard Ellis Group Inc	CBG	Buy	Financials	Real Estate Management & Development	8	(14)	(5)	17
KB Home	KBH	Neutral	Consumer Discretionary	Homebuilding	2	(13)	(31)	17
<b>GSTHFFHI Basket (average)</b>					<b>8</b>	<b>(8)</b>	<b>(10)</b>	<b>24</b>
<b>S&amp;P 500 (average)</b>					<b>28</b>	<b>(5)</b>	<b>(4)</b>	<b>5</b>

Source: Goldman Sachs Research.

## Trade #3: Buy US stocks with high foreign revenue exposure

**Portfolio managers should own US companies with high foreign sales exposure.** The 45 stocks in Exhibit 14 span nine sectors and have faster sales and earnings growth forecasts than the S&P 500 but the basket trades at the same multiple as the market. Our *Portfolio Passport* report published July 22, 2007 contains details on our International basket (Bloomberg <GSTHINTL>).

**Exhibit 14: Bloomberg <GSTHINTL> US companies with high foreign revenue exposure, as of July 26, 2007**

Company	Ticker	Sector	GS Rating	% of Sales Outside the US	Total Return	
					1-wk	1-mo
Freeport-McMoran Cp & Gld	FCX	Materials	Buy	100 %	(8)%	15 %
NVIDIA Corp.	NVDA	Information Technology	Neutral	89	(3)	10
QUALCOMM Inc.	QCOM	Information Technology	Buy	87	(3)	(2)
National Semiconductor	NSM	Information Technology	Buy	80	(7)	(5)
Transocean Inc.	RIG	Energy	Not Rated	79	2	7
AES Corp.	AES	Utilities	NC	78	(11)	(6)
Avon Products	AVP	Consumer Staples	Neutral	75	(2)	7
Colgate-Palmolive	CL	Consumer Staples	Buy	75	0	7
Noble Corporation	NE	Energy	Neutral	73	1	9
Coca-Cola Co.	KO	Consumer Staples	Buy	72	(1)	2
International Flav/Frag	IFF	Materials	NC	72	(5)	(1)
Schlumberger Ltd.	SLB	Energy	Neutral	72	1	10
AFLAC Inc.	AFL	Financials	Neutral	72	2	3
Exxon Mobil Corp.	XOM	Energy	Neutral	69	(4)	8
Waters Corporation	WAT	Health Care	NC	68	(2)	0
Halliburton Co.	HAL	Energy	Neutral	68	1	7
Autodesk, Inc.	ADSK	Information Technology	Neutral	66	(9)	(7)
Pall Corp.	PLL	Industrials	NC	66	(15)	(10)
Agilent Technologies	A	Information Technology	Neutral	66	(4)	0
McDonald's Corp.	MCD	Consumer Discretionary	Buy	65	(6)	(4)
Hewlett-Packard	HPQ	Information Technology	Buy	65	(3)	6
IMS Health Inc.	RX	Health Care	Neutral	63	(3)	(11)
Dow Chemical	DOW	Materials	Neutral	63	(9)	(3)
Wrigley (Wm) Jr.	WWY	Consumer Staples	Neutral	63	(3)	3
Apache Corp.	APA	Energy	Neutral	63	(8)	2
Baker Hughes	BHI	Energy	Buy	62	(3)	(4)
Terex Corp.	TEX	Industrials	Neutral	62	(11)	1
PerkinElmer	PKI	Health Care	NC	62	(3)	2
Weatherford International Ltd.	WFT	Energy	Buy	62	1	3
NIKE Inc.	NKE	Consumer Discretionary	Buy	62	(5)	6
3M Company	MMM	Industrials	Neutral	61	(1)	5
Millipore Corp.	MIL	Health Care	NC	61	2	7
International Bus. Machines	IBM	Information Technology	Buy	61	1	11
Schering-Plough	SGP	Health Care	Not Rated	60	(9)	(4)
Johnson Controls	JCI	Consumer Discretionary	Buy	60	(8)	(1)
Du Pont (E.I.)	DD	Materials	Buy	59	(10)	(6)
Avery Dennison Corp.	AVY	Industrials	NC	58	(8)	(4)
NCR Corp.	NCR	Information Technology	NC	58	(3)	4
Heinz (H.J.)	HNZ	Consumer Staples	NC	58	(5)	(5)
Altria Group, Inc.	MO	Consumer Staples	Buy	58	(5)	(4)
Goodyear Tire & Rubber	GT	Consumer Discretionary	NC	57	(18)	(13)
Fluor Corp.	FLR	Industrials	Neutral	55	(5)	12
Aon Corp.	AOC	Financials	Neutral	53	(2)	(3)
Caterpillar Inc.	CAT	Industrials	Neutral	53	(10)	(2)
American Int'l. Group	AIG	Financials	Buy	49	(4)	(6)

**Average:**

<b>International Basket (GSTHINTL)</b>	<b>66 %</b>	<b>(5)%</b>	<b>(1)%</b>
<b>S&amp;P 500 (Cap-Weighted)</b>	<b>33</b>	<b>(5)</b>	<b>(1)</b>
<b>S&amp;P 500 (Equal-Weighted)</b>	<b>26</b>	<b>(6)</b>	<b>(2)</b>

Source: Goldman Sachs Research.

The Equities Division of the firm has previously introduced the basket of securities discussed in this report. The Equity Analyst may have been consulted as to the composition of the basket prior to its launch. However, the views expressed in this research and its timing were not shared with the Equities Division.

## Reg AC

---

I, David J. Kostin, hereby certify that all of the views expressed in this report accurately reflect my personal views about the subject company or companies and its or their securities. I also certify that no part of my compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

## Investment profile

---

The Goldman Sachs Investment Profile provides investment context for a security by comparing key attributes of that security to its peer group and market. The four key attributes depicted are: growth, returns, multiple and volatility. Growth, returns and multiple are indexed based on composites of several methodologies to determine the stocks percentile ranking within the region's coverage universe.

The precise calculation of each metric may vary depending on the fiscal year, industry and region but the standard approach is as follows:

**Growth** is a composite of next year's estimate over current year's estimate, e.g. EPS, EBITDA, Revenue. **Return** is a year one prospective aggregate of various return on capital measures, e.g. CROCI, ROACE, and ROE. **Multiple** is a composite of one-year forward valuation ratios, e.g. P/E, dividend yield, EV/FCF, EV/EBITDA, EV/DACF, Price/Book. **Volatility** is measured as trailing twelve-month volatility adjusted for dividends.

## Quantum

---

Quantum is Goldman Sachs' proprietary database providing access to detailed financial statement histories, forecasts and ratios. It can be used for in-depth analysis of a single company, or to make comparisons between companies in different sectors and markets.

## Disclosures

---

### Coverage group(s) of stocks by primary analyst(s)

Compendium report: please see disclosures at <http://www.gs.com/research/hedge.html>. Disclosures applicable to the companies included in this compendium can be found in the latest relevant published research.

### Company-specific regulatory disclosures

Compendium report: please see disclosures at <http://www.gs.com/research/hedge.html>. Disclosures applicable to the companies included in this compendium can be found in the latest relevant published research.

### Distribution of ratings/investment banking relationships

Goldman Sachs Investment Research global coverage universe

	Rating Distribution			Investment Banking Relationships		
	Buy	Hold	Sell	Buy	Hold	Sell
Global	28%	59%	13%	40%	33%	27%

As of July 1, 2007, Goldman Sachs Global Investment Research had investment ratings on 2,631 equity securities. Goldman Sachs assigns stocks as Buys and Sells on various regional Investment Lists; stocks not so assigned are deemed Neutral. Such assignments equate to Buy, Hold and Sell for the purposes of the above disclosure required by NASD/NYSE rules. See 'Ratings, Coverage groups and views and related definitions' below.

### Price target and rating history chart(s)

Compendium report: please see disclosures at <http://www.gs.com/research/hedge.html>. Disclosures applicable to the companies included in this compendium can be found in the latest relevant published research.

### Regulatory disclosures

#### Disclosures required by United States laws and regulations

See company-specific regulatory disclosures above for any of the following disclosures required as to companies referred to in this report: manager or co-manager in a pending transaction; 1% or other ownership; compensation for certain services; types of client relationships; managed/co-managed public offerings in prior periods; directorships; market making and/or specialist role.

The following are additional required disclosures: **Ownership and material conflicts of interest:** Goldman Sachs policy prohibits its analysts, professionals reporting to analysts and members of their households from owning securities of any company in the analyst's area of coverage.

**Analyst compensation:** Analysts are paid in part based on the profitability of Goldman Sachs, which includes investment banking revenues. **Analyst**

**as officer or director:** Goldman Sachs policy prohibits its analysts, persons reporting to analysts or members of their households from serving as an officer, director, advisory board member or employee of any company in the analyst's area of coverage. **Distribution of ratings:** See the distribution of ratings disclosure above. **Price chart:** See the price chart, with changes of ratings and price targets in prior periods, above, or, if electronic format or if with respect to multiple companies which are the subject of this report, on the Goldman Sachs website at <http://www.gs.com/research/hedge.html>.

## Additional disclosures required under the laws and regulations of jurisdictions other than the United States

The following disclosures are those required by the jurisdiction indicated, except to the extent already made above pursuant to United States laws and regulations. **Australia:** This research, and any access to it, is intended only for "wholesale clients" within the meaning of the Australian Corporations Act. **Canada:** Goldman Sachs Canada Inc. has approved of, and agreed to take responsibility for, this research in Canada if and to the extent it relates to equity securities of Canadian issuers. Analysts may conduct site visits but are prohibited from accepting payment or reimbursement by the company of travel expenses for such visits. **Hong Kong:** Further information on the securities of covered companies referred to in this research may be obtained on request from Goldman Sachs (Asia) L.L.C. **India:** Further information on the subject company or companies referred to in this research may be obtained from Goldman Sachs (India) Securities Private Limited; **Japan:** See company-specific disclosures as to any applicable disclosures required by Japanese stock exchanges, the Japanese Securities Dealers Association or the Japanese Securities Finance Company. **Korea:** Further information on the subject company or companies referred to in this research may be obtained from Goldman Sachs (Asia) L.L.C., Seoul Branch. **Russia:** Research reports distributed in the Russian Federation are not advertising as defined in Russian law, but are information and analysis not having product promotion as their main purpose and do not provide appraisal within the meaning of the Russian Law on Appraisal. **Singapore:** Further information on the covered companies referred to in this research may be obtained from Goldman Sachs (Singapore) Pte. (Company Number: 198602165W). **United Kingdom:** Persons who would be categorized as private customers in the United Kingdom, as such term is defined in the rules of the Financial Services Authority, should read this research in conjunction with prior Goldman Sachs research on the covered companies referred to herein and should refer to the risk warnings that have been sent to them by Goldman Sachs International. A copy of these risks warnings, and a glossary of certain financial terms used in this report, are available from Goldman Sachs International on request.

**European Union:** Disclosure information in relation to Article 4 (1) (d) and Article 6 (2) of the European Commission Directive 2003/126/EC is available at [http://www.gs.com/client\\_services/global\\_investment\\_research/europeanpolicy.html](http://www.gs.com/client_services/global_investment_research/europeanpolicy.html)

## Ratings, coverage groups and views and related definitions

**Buy (B), Neutral (N), Sell (S)** -Analysts recommend stocks as Buys or Sells for inclusion on various regional Investment Lists. Being assigned a Buy or Sell on an Investment List is determined by a stock's return potential relative to its coverage group as described below. Any stock not assigned as a Buy or a Sell on an Investment List is deemed Neutral. Each regional Investment Review Committee manages various regional Investment Lists to a global guideline of 25%-35% of stocks as Buy and 10%-15% of stocks as Sell; however, the distribution of Buys and Sells in any particular coverage group may vary as determined by the regional Investment Review Committee. Regional Conviction Buy and Sell lists represent investment recommendations focused on either the size of the potential return or the likelihood of the realization of the return.

**Return potential** represents the price differential between the current share price and the price target expected during the time horizon associated with the price target. Price targets are required for all covered stocks. The return potential, price target and associated time horizon are stated in each report adding or reiterating an Investment List membership.

**Coverage groups and views:** A list of all stocks in each coverage group is available by primary analyst, stock and coverage group at <http://www.gs.com/research/hedge.html>. The analyst assigns one of the following coverage views which represents the analyst's investment outlook on the coverage group relative to the group's historical fundamentals and/or valuation. **Attractive (A).** The investment outlook over the following 12 months is favorable relative to the coverage group's historical fundamentals and/or valuation. **Neutral (N).** The investment outlook over the following 12 months is neutral relative to the coverage group's historical fundamentals and/or valuation. **Cautious (C).** The investment outlook over the following 12 months is unfavorable relative to the coverage group's historical fundamentals and/or valuation.

**Not Rated (NR).** The investment rating and target price, if any, have been removed pursuant to Goldman Sachs policy when Goldman Sachs is acting in an advisory capacity in a merger or strategic transaction involving this company and in certain other circumstances. **Rating Suspended (RS).** Goldman Sachs Research has suspended the investment rating and price target, if any, for this stock, because there is not a sufficient fundamental basis for determining an investment rating or target. The previous investment rating and price target, if any, are no longer in effect for this stock and should not be relied upon. **Coverage Suspended (CS).** Goldman Sachs has suspended coverage of this company. **Not Covered (NC).** Goldman Sachs does not cover this company. **Not Available or Not Applicable (NA).** The information is not available for display or is not applicable. **Not Meaningful (NM).** The information is not meaningful and is therefore excluded.

## Ratings, coverage views and related definitions prior to June 26, 2006

Our rating system requires that analysts rank order the stocks in their coverage groups and assign one of three investment ratings (see definitions below) within a ratings distribution guideline of no more than 25% of the stocks should be rated Outperform and no fewer than 10% rated Underperform. The analyst assigns one of three coverage views (see definitions below), which represents the analyst's investment outlook on the coverage group relative to the group's historical fundamentals and valuation. Each coverage group, listing all stocks covered in that group, is available by primary analyst, stock and coverage group at <http://www.gs.com/research/hedge.html>.

### Definitions

**Outperform (OP).** We expect this stock to outperform the median total return for the analyst's coverage universe over the next 12 months. **In-Line (IL).** We expect this stock to perform in line with the median total return for the analyst's coverage universe over the next 12 months. **Underperform (U).** We expect this stock to underperform the median total return for the analyst's coverage universe over the next 12 months.

**Coverage views: Attractive (A).** The investment outlook over the following 12 months is favorable relative to the coverage group's historical fundamentals and/or valuation. **Neutral (N).** The investment outlook over the following 12 months is neutral relative to the coverage group's historical fundamentals and/or valuation. **Cautious (C).** The investment outlook over the following 12 months is unfavorable relative to the coverage group's historical fundamentals and/or valuation.

**Current Investment List (CIL).** We expect stocks on this list to provide an absolute total return of approximately 15%-20% over the next 12 months. We only assign this designation to stocks rated Outperform. We require a 12-month price target for stocks with this designation. Each stock on the

CIL will **automatically** come off the list after 90 days unless renewed by the covering analyst and the relevant Regional Investment Review Committee.

### **Global product; distributing entities**

The Global Investment Research Division of Goldman Sachs produces and distributes research products for clients of Goldman Sachs, and pursuant to certain contractual arrangements, on a global basis. Analysts based in Goldman Sachs offices around the world produce equity research on industries and companies, and research on macroeconomics, currencies, commodities and portfolio strategy.

This research is disseminated in Australia by Goldman Sachs JBWere Pty Ltd (ABN 21 006 797 897) on behalf of Goldman Sachs; in Canada by Goldman Sachs Canada Inc. regarding Canadian equities and by Goldman Sachs & Co. (all other research); in Germany by Goldman Sachs & Co. oHG; in Hong Kong by Goldman Sachs (Asia) L.L.C.; in India by Goldman Sachs (India) Securities Private Ltd.; in Japan by Goldman Sachs Japan Co., Ltd.; in the Republic of Korea by Goldman Sachs (Asia) L.L.C., Seoul Branch; in New Zealand by Goldman Sachs JBWere (NZ) Limited on behalf of Goldman Sachs; in Singapore by Goldman Sachs (Singapore) Pte. (Company Number: 198602165W); and in the United States of America by Goldman, Sachs & Co. Goldman Sachs International has approved this research in connection with its distribution in the United Kingdom and European Union.

**European Union:** Goldman Sachs International, authorised and regulated by the Financial Services Authority, has approved this research in connection with its distribution in the European Union and United Kingdom; Goldman, Sachs & Co. oHG, regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht, may also be distributing research in Germany.

### **General disclosures in addition to specific disclosures required by certain jurisdictions**

This research is for our clients only. Other than disclosures relating to Goldman Sachs, this research is based on current public information that we consider reliable, but we do not represent it is accurate or complete, and it should not be relied on as such. We seek to update our research as appropriate, but various regulations may prevent us from doing so. Other than some industry reports published on a periodic basis, the large majority of reports are published at irregular intervals as appropriate in the analyst's judgment.

Goldman Sachs conducts a global full-service, integrated investment banking, investment management, and brokerage business. We have investment banking and other business relationships with a substantial percentage of the companies covered by our Global Investment Research Division.

Our salespeople, traders, and other professionals may provide oral or written market commentary or trading strategies to our clients and our proprietary trading desks that reflect opinions that are contrary to the opinions expressed in this research. Our asset management area, our proprietary trading desks and investing businesses may make investment decisions that are inconsistent with the recommendations or views expressed in this research.

We and our affiliates, officers, directors, and employees, excluding equity analysts, will from time to time have long or short positions in, act as principal in, and buy or sell, the securities or derivatives (including options and warrants) thereof of covered companies referred to in this research.

This research is not an offer to sell or the solicitation of an offer to buy any security in any jurisdiction where such an offer or solicitation would be illegal. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. Clients should consider whether any advice or recommendation in this research is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice. The price and value of the investments referred to in this research and the income from them may fluctuate. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. Certain transactions, including those involving futures, options, and other derivatives, give rise to substantial risk and are not suitable for all investors. Current options disclosure documents are available from Goldman Sachs sales representatives or at <http://theocc.com/publications/risks/riskstoc.pdf>. Fluctuations in exchange rates could have adverse effects on the value or price of, or income derived from, certain investments.

Our research is disseminated primarily electronically, and, in some cases, in printed form. Electronic research is simultaneously available to all clients.

Disclosure information is also available at <http://www.gs.com/research/hedge.html> or from Research Compliance, One New York Plaza, New York, NY 10004.

**Copyright 2007 The Goldman Sachs Group, Inc.**

**No part of this material may be (i) copied, photocopied or duplicated in any form by any means or (ii) redistributed without the prior written consent of The Goldman Sachs Group, Inc.**