The Challenging Investment Climate: How to Cope

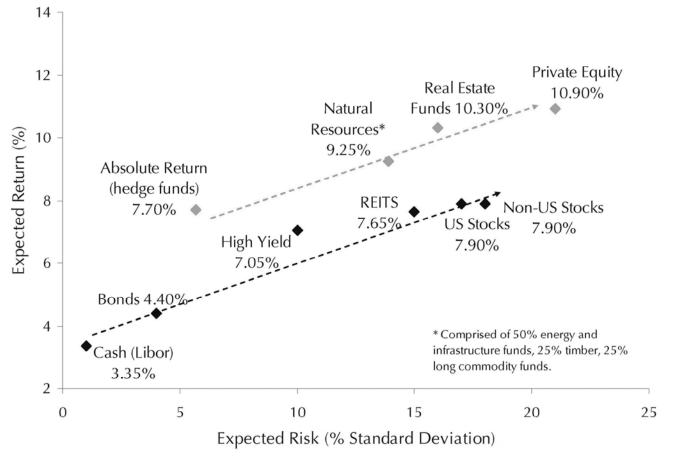
Robert Dennis PERAC Investment Director Public Employee Retirement Administration Commission

Public Pension Institute

August 2008

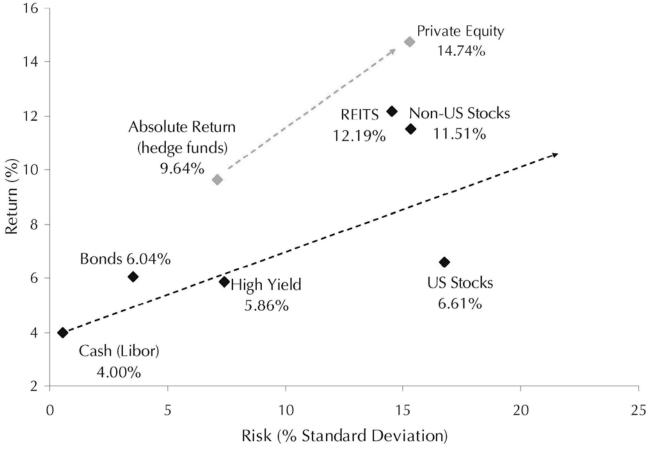


Asset Class Expected Return & Risk



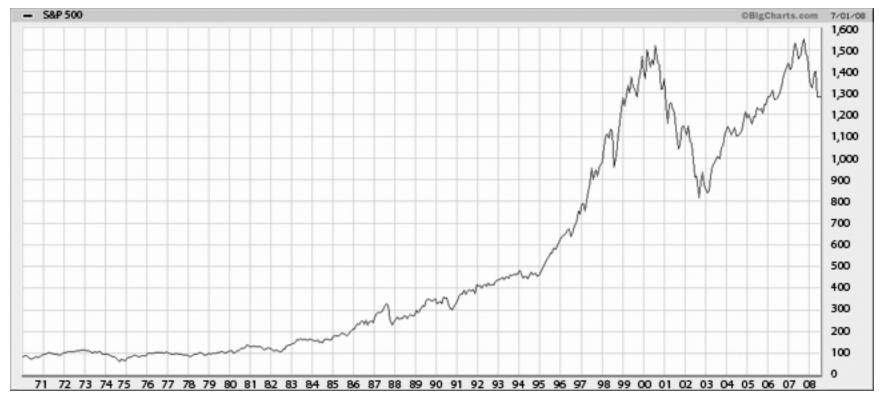
Source: Cliffwater LLC

Ten Year Actual Asset Class Return & Risk



Source: Cliffwater LLC

Long-term Stock Market Trends



S&P 500, 1970-Present

S&P 500 Sector Performance

First Half 2008

S&P 500

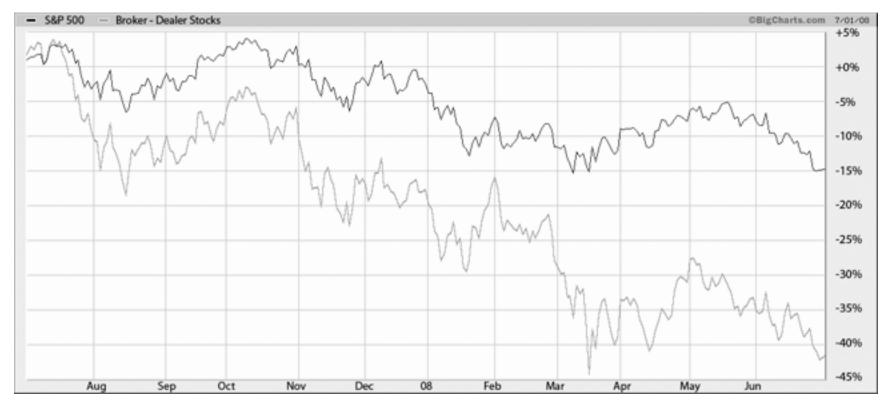
Energy **Materials** Industrials -12.83% **Consumer Discretionary** +0.19% **Consumer Staples** +8.12%14.59% **Health Care** -13.86% **Financials** -13.47% Information Technology -8.54% -30.89% -18.90% **Telecommunications Services** Utilities -13.43%

Sectors Matter: Energy Stocks Rule



S&P vs. Oil and Gas Stocks, Three-Years

Sectors Matter: Financial Stocks Plummet



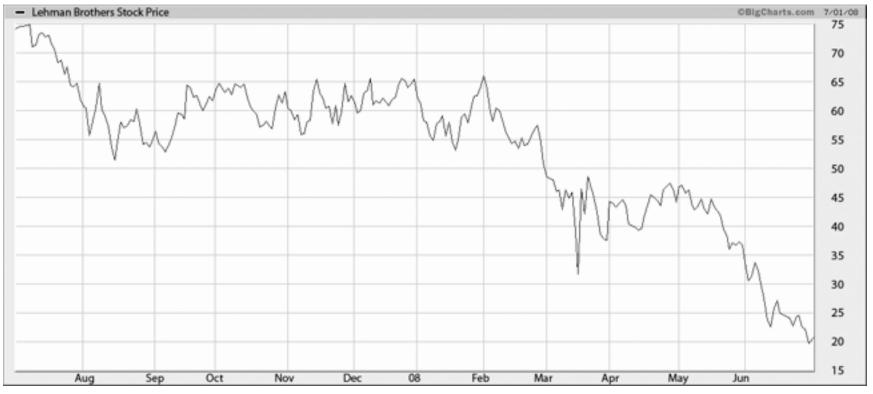
S&P 500 vs. Broker-Dealer Stocks, One Year

Stock Selection: The Beauty and the Beast



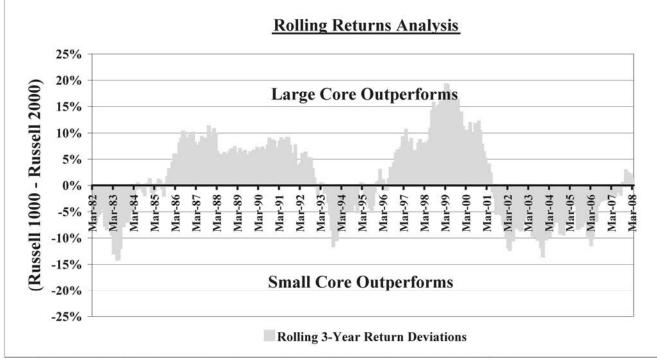
Citigroup vs. Exxon Mobil, One Year

Financials: The Mighty Have Fallen



Lehman Brothers Stock, Twelve Months

Equity Market Cap Cycle



• Index Inception (i.e., January 1979): R1000: 12.7%; R2000: 12.3% (+42 bps)

• After outperforming for 7 of the last 8 calendar years, the R1000 was ahead of the R2000 for the trailing 1-year (+756 bps) and 3-year (+110 bps) time periods.

Equity Style Cycle

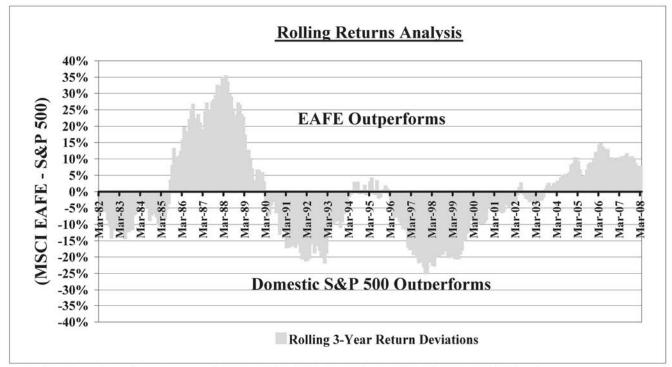


• Index Inception (i.e., January 1979): R1000V: 13.6%; R1000G: 11.4% (+220 bps)

• After 7 consecutive years of outperformance by the R1000V relative to the R1000G, the R1000G was ahead of the R1000V on a trailing 1-year (+925 bps) and 3-year (+30 bps) basis.

Source: Segal Advisors

Equity Country Cycle

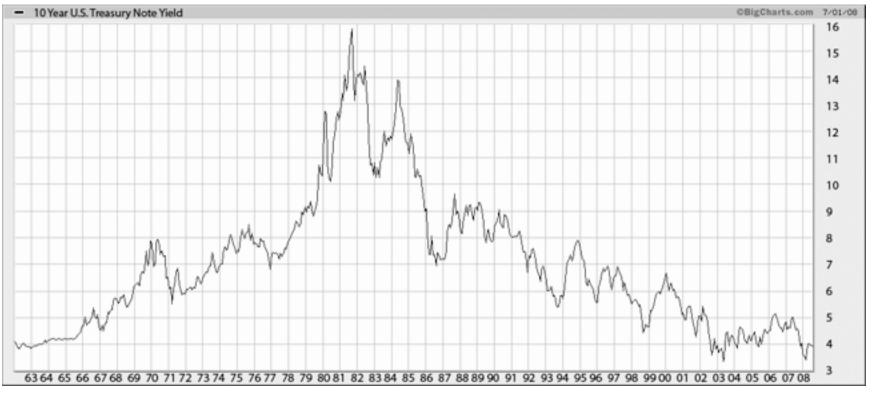


• Index Inception (i.e., January 1979): S&P 500: 12.7%; EAFE: 10.9% (+177 bps)

• The EAFE outperformed the S&P 500 in 7 of last 10 calendar years, including the last 6 in a row.

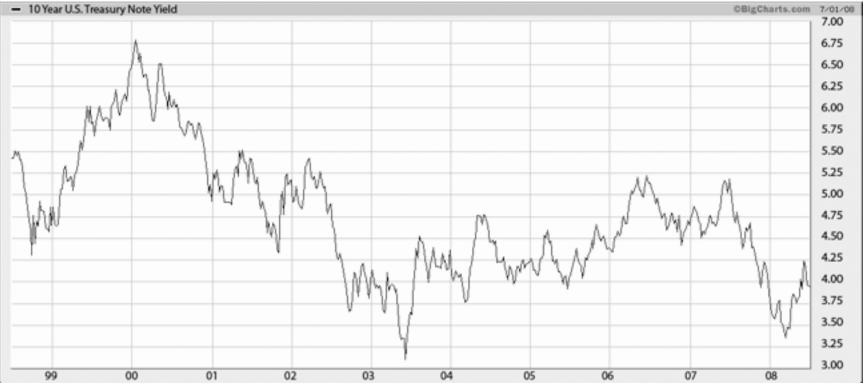
Source: Segal Advisors

Interest Rates Near Historic Lows



10-Year U.S. Treasury Note Yields, 1962-Present

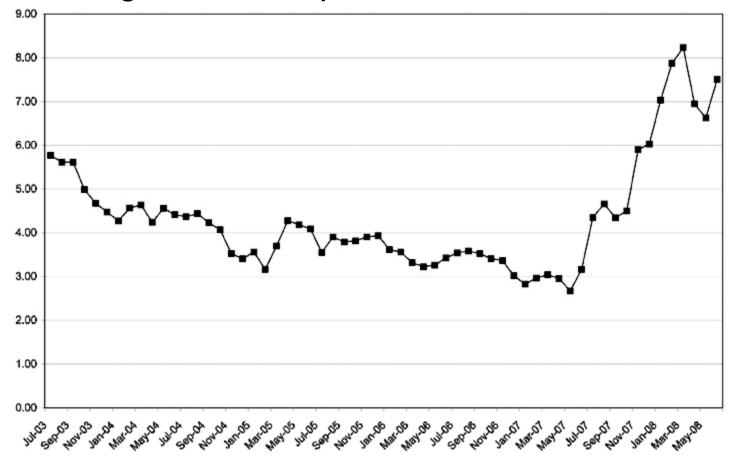
Interest Rate Trends



10-Year U.S. Treasury Note Yields, 10-Years

High Yield Risk Premium

High Yield Bond Spread over U.S. Treasuries



Source: Meketa Investments

Hedge Funds Return vs. Risk

June 2008

	Hedge Fund <u>Index</u>	Convertible <u>Arbitrage</u>	Market <u>Neutral</u>	Long/ <u>Short</u>	<u>S&P 500</u>
1 year	4.08%	-5.56%	7.85%	3.11%	-13.12%
3-year Avg. Ann. Return	11.01%	5.70%	9.66%	12.05%	4.41%
5-year Avg. Ann. Return	10.20%	3.32%	8.14%	11.61%	7.58%
Avg. Ann. Return since 1-1-94	10.69%	8.02%	9.88%	11.72%	9.18%
Standard Deviation of Returns	7.44%	4.89%	2.79%	9.80%	14.15%
Sharpe Ratio (Return/Risk)	0.91	0.84	2.14	0.81	0.37
Correlation with S&P 500	0.49	0.18	0.35	0.60	1.00

Source: CSFB / Tremont

Data through June 30, 2008

Real Estate – A Good Diversifier

Annualized Returns

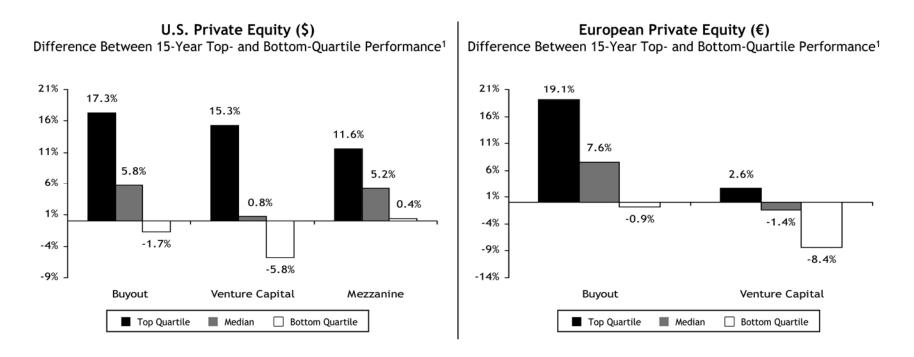
	<u>3 years</u>	<u>5 years</u>	<u>10 years</u>
NAREIT Equity REITs	10.90%	17.47%	11.86%
NCREIF Nat'l Prop Index (est.)	17.00%	15.00%	12.00%
DJ Wilshire 5000	5.02%	8.73%	3.59%

Data Through June 30, 2008

ALTERNATIVE INVESTMENTS

... Manager Selection Is Critical to Generate Superior Returns

Persistent, wide disparity between median and top-quartile private equity returns in the United States and Europe



¹ Venture Economics Information Services, Cumulative Vintage Year Composite Performance pooled IRR averages for the 15-year periods ended September 30, 2007 for US PE data and June 30, 2007 for Europe PE data. Private equity returns are internal rates of return net to investors after fees and carried interest. Private equity returns are derived from the Venture Economics VentureXpert database as of February 15, 2008, which contains a representative sample of the Private equity universe. Cash flows collected from investors and General Partners are used to calculate IRRs based on cash-in/cash-out returns, with consideration of the net asset value of the remaining partnership holdings. The IRR is an annualized compounded rate of return calculated using monthly cash flows and annual valuations. Please see accompanying End Notes for additional information on quartile rankings. **Performance data reflects past performance and does not guarantee future results. The returns shown are not predictive of the Fund's returns.**

- BLACKROCK

TIMELINE OF THE SUBPRIME CREDIT CRISIS

- MAY 2007 Concerns over mortgage lenders begin to surface
- JUNE Cods and subprime mortgages suffer sharp market declines
- JULY Subprime losses extend to bank loans and CLOs
- AUGUST Amid massive deleveraging, many quantitative hedge funds lose value. Banks begin to restrain lending
- SEPTEMBER With no ability to roll over, many SIVs are forced to liquidate
- OCTOBER Enhanced money market funds suffer losses and gain scrutiny
- NOVEMBER Bond insurers MBIA, Ambac, and FGIC under capitalization pressure over structured credit mortgage losses
- DECEMBER Municipal bonds pressured by insurer instability and higher financing costs

TIMELINE OF THE SUBPRIME CREDIT CRISIS

JANUARY 2008 Stocks tu mble as recession fears mount

- FEBRUARY Failed auctions on variable rate securities affect many public and non-profit issuers
- MARCH Fed orches trates bailout of Bear Stearns and offers unprecedented assistance to broker-dealers
- JUNE Pressure rises at Lehman Brothers as losses mount; Major bond insurers lose "AAA" ratings; Stocks tumble to new lows amid renewed fears
- JULY Mortgage crisis hits Fannie Mae and Freddie Mac; IndyMac Bank fails, taken over by US regulators