

US Quantitative Strategy

Big Pictures

Current outlook in US Quantitative Strategy



Savita Subramanian +1 646 855 3878
Quantitative Strategist
MLPF&S
savita.subramanian@baml.com

Yue Xu, CFA +1 646 855 5982
Quantitative Strategist
MLPF&S
yue.xu@baml.com

Tudor Mustata +1 646 855 3327
Quantitative Strategist
MLPF&S
tudor.mustata@baml.com

Merrill Lynch 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.

Refer to important disclosures on page 105-110. Analyst Certification on page 104.

This slide intentionally left blank

Contents

	Page
▪ 3 rd Quarter Performance Review	5
▪ Cash Back Themes	11
▪ Earnings Preview	23
▪ Outlook	33
▪ 2004 Playbook	47
▪ Price Momentum	59
▪ Macro Market	67
▪ Active Manager Trends	73
▪ Sector and Industry Rotation	81
▪ Benchmark Fundamentals	87
▪ Appendix	97

This slide intentionally left blank

3rd Quarter Performance Review

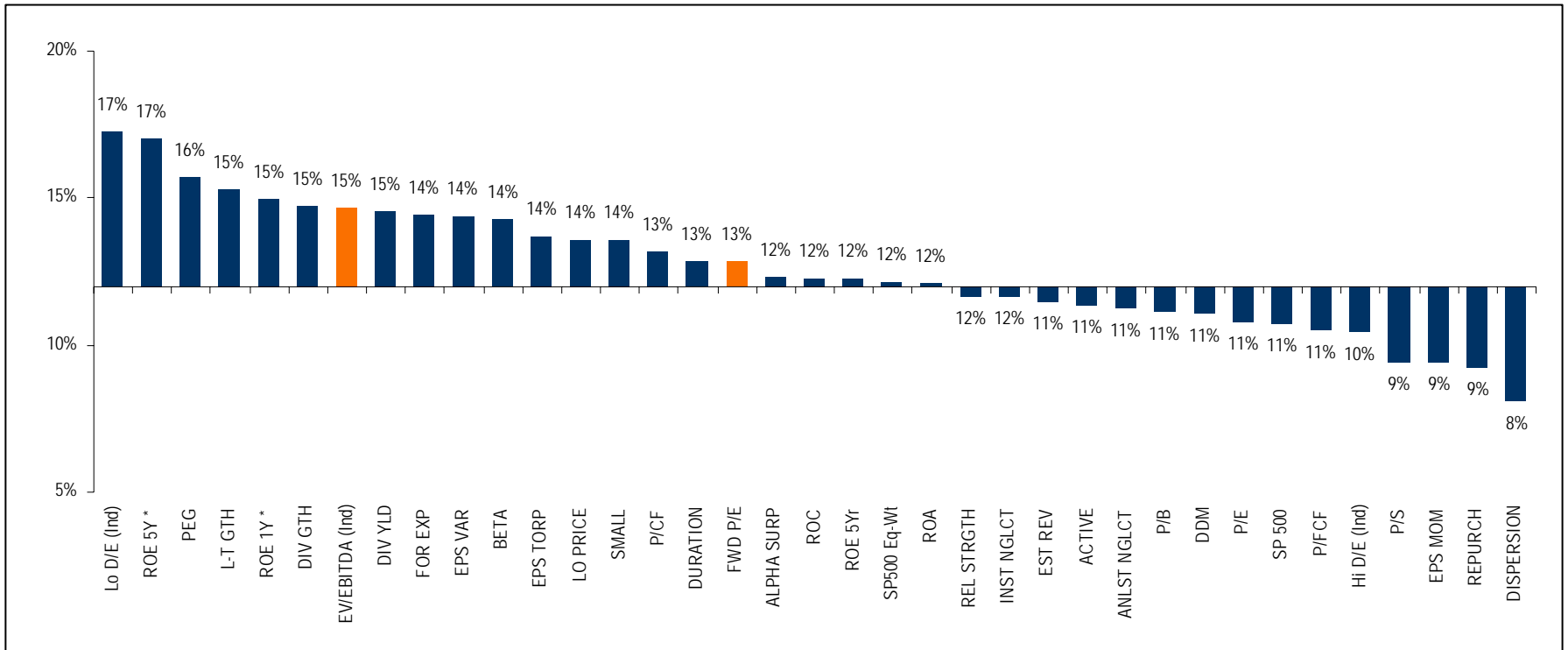
This slide intentionally left blank

3rd Quarter factor heatmap

		Q1-Q5 Spread	Quintile 1	2	3	4	Quintile 5	Quintile 1
Technical/Momentum	Price Return - 12-Month and 1-Month Reversal	7.1%	16%	13%	13%	10%	9%	High 12 and 1M Reversal
Growth	Long-Term Growth	5.4%	16%	13%	13%	11%	10%	High Growth
Risk	Beta	5.3%	15%	15%	10%	11%	10%	High Beta
Miscellaneous	Foreign Exposure	5.1%	15%	17%	10%	10%	10%	High Foreign Exposure
Growth	ROE (5 Yr) Adj for Debt	4.1%	15%	11%	11%	12%	11%	High Adjusted ROE5
Miscellaneous	Equity Duration	4.0%	17%	13%	12%	13%	13%	Low Duration
Growth	ROA	3.9%	13%	13%	14%	12%	9%	High ROA
Growth	Dividend Growth	3.7%	13%	12%	14%	13%	10%	High Div Growth
Growth	ROC	3.5%	12%	12%	14%	15%	8%	High ROC
Growth	ROE (1 Yr) Adj for Debt	2.4%	14%	12%	11%	13%	11%	High Adjusted ROE
Valuation	Forward P/E	2.2%	12%	13%	15%	11%	10%	Low PE
Growth	ROE (5 Yr)	2.1%	13%	14%	12%	11%	11%	High ROE5
Growth	PEG	1.8%	13%	12%	13%	14%	11%	Low PEG
Growth	ROE (1 Yr)	1.0%	12%	13%	13%	13%	11%	High ROE
Technical/Momentum	Price Return - 11-Month Performance	0.7%	14%	13%	11%	11%	13%	High 11-M Return
Technical/Momentum	Trading Volume	0.4%	12%	12%	13%	12%	11%	Low Trade Volume
Valuation	EV/EBITDA	0.2%	14%	13%	12%	12%	14%	Low EV/EBITDa
Technical/Momentum	Relative Strength	0.2%	12%	14%	12%	11%	12%	High RS
Valuation	Dividend Yield	0.1%	14%	12%	14%	10%	14%	High DY
Valuation	Price to Cash Flow	(0.0%)	14%	11%	13%	10%	14%	Low P/Cf
Risk	Estimate Dispersion	(0.2%)	9%	13%	15%	14%	10%	Low EPS Est Dispersion
Miscellaneous	Analyst Coverage Neglect	(0.6%)	12%	12%	12%	12%	13%	Low Analyst Coverage
Miscellaneous	Share Repurchase	(0.6%)	11%	11%	15%	12%	12%	High Share Repurchase
Technical/Momentum	Price	(0.9%)	12%	13%	12%	12%	12%	Low Price
Growth	ML vs Consensus	(1.2%)	12%	11%	15%	13%	14%	Positive Surprise
Valuation	Trailing P/E	(1.3%)	12%	14%	11%	14%	13%	Low PE
Growth	Estimate Revisions	(1.4%)	12%	12%	11%	12%	13%	High Revision
Valuation	Price to Sales	(1.4%)	11%	12%	13%	12%	13%	Low P/S
Miscellaneous	Institutional Neglect	(1.7%)	12%	10%	11%	15%	14%	Low Institutional Holding
Valuation	Price to Book	(1.8%)	12%	12%	12%	13%	13%	Low P/B
Growth	Earnings Momentum	(1.9%)	12%	11%	11%	13%	14%	High EPS Momentum
Miscellaneous	Size	(2.0%)	11%	12%	11%	13%	13%	High Mkt Cap
Growth	Earnings Torpedo	(2.2%)	11%	13%	11%	12%	13%	High EPS Torpedo
Technical/Momentum	Price Return - 12-Month Performance	(2.7%)	11%	11%	13%	12%	14%	High 12-M Return
Valuation	Price to Free Cash Flow	(3.3%)	10%	13%	13%	13%	13%	Low P/FCF
Risk	Earnings Variability	(3.4%)	10%	14%	12%	14%	14%	Low EPS Variability
Technical/Momentum	10W/40W Moving Average	(3.9%)	12%	10%	11%	12%	16%	High 10W/40W
Valuation	DDM Valuation	(4.6%)	11%	11%	14%	15%	16%	High DDM Alpha
Technical/Momentum	Price Return - 9-Month Performance	(4.6%)	10%	11%	13%	12%	15%	High 9-M Return
Technical/Momentum	Price Return - 3-Month Performance	(4.6%)	11%	14%	11%	11%	15%	High 3-M Return
Technical/Momentum	5W/30W Moving Average	(4.9%)	11%	12%	12%	10%	16%	High 5W/30W
Technical/Momentum	Price to Moving Average (200-Day)	(6.8%)	8%	12%	14%	12%	15%	High Price/200D MA
Technical/Momentum	Price Return - 12-Month and 1-Month Performance	(7.7%)	7%	11%	14%	15%	14%	High 12 and 1 M

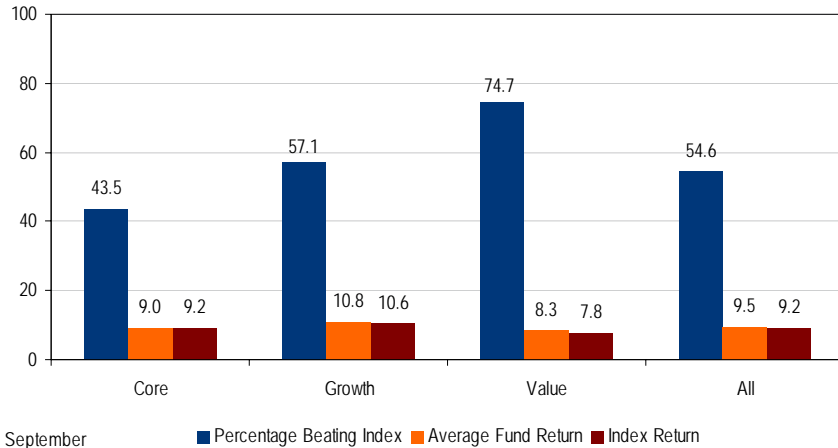
Factor returns in 3rd Quarter

3rd Quarter 2010 Factor Performance by decile



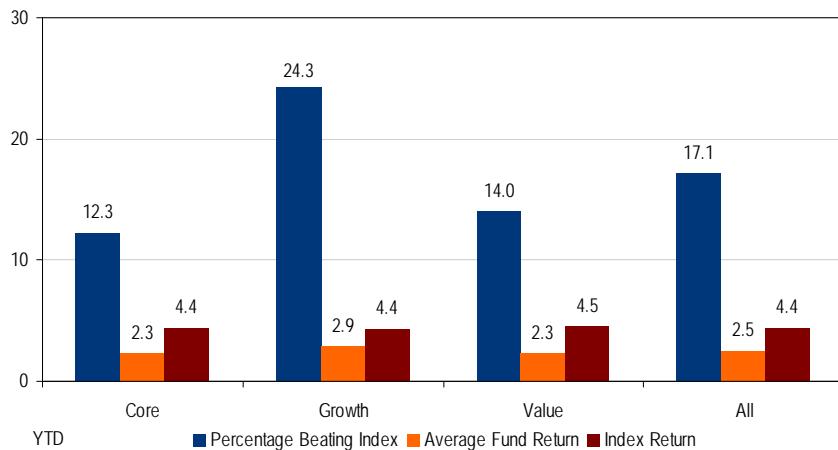
Getting better for active managers

September 2010 Performance



- Three out of four value managers and over half of growth managers outperformed their respective benchmarks in September.
- On the whole, 55% of active managers outperformed the Russell 1000, reversing course after sub-50% hit rates for most of the year.
- Even with a better September, year to date statistics are still quite low, and fund managers have had a tougher time than is normally the case.

YTD Performance



This slide intentionally left blank

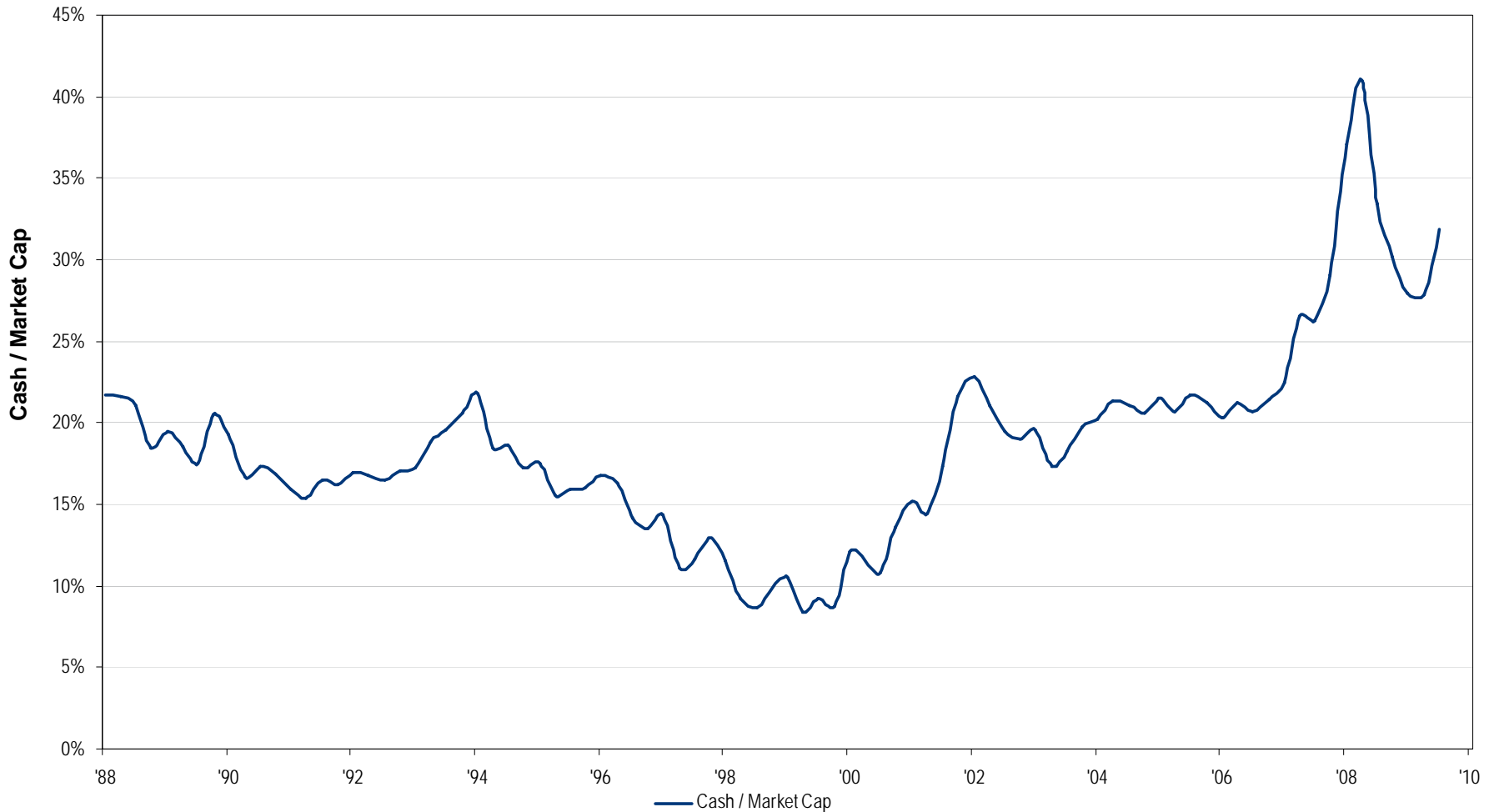
Cash Back Themes

- Dividends
- Share Repurchase
- M&A

This slide intentionally left blank

Large cap cash levels near peak

Cash to Market Cap for Russell 1000

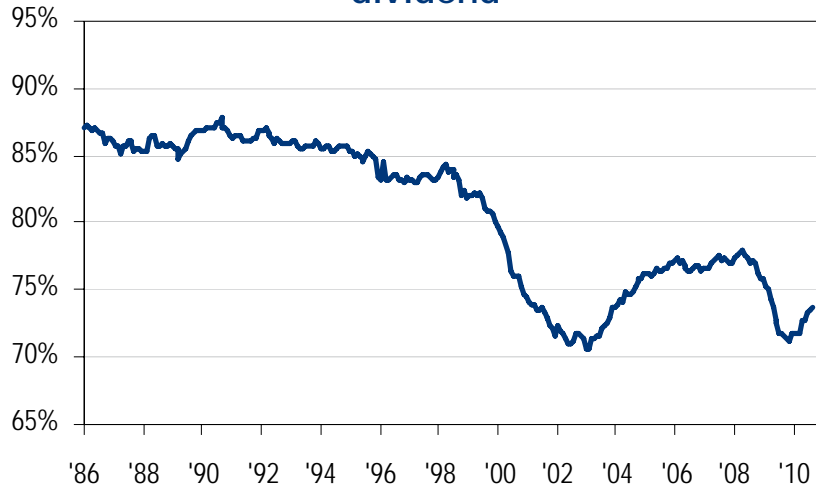


Secular theme

Constrained supply

Fewer stories, lower yields

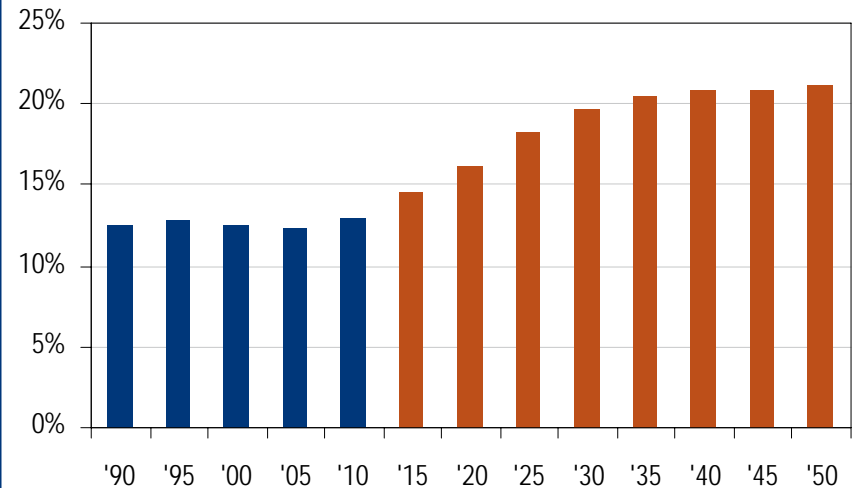
Percent of S&P500 companies that pay a dividend



Growing demand

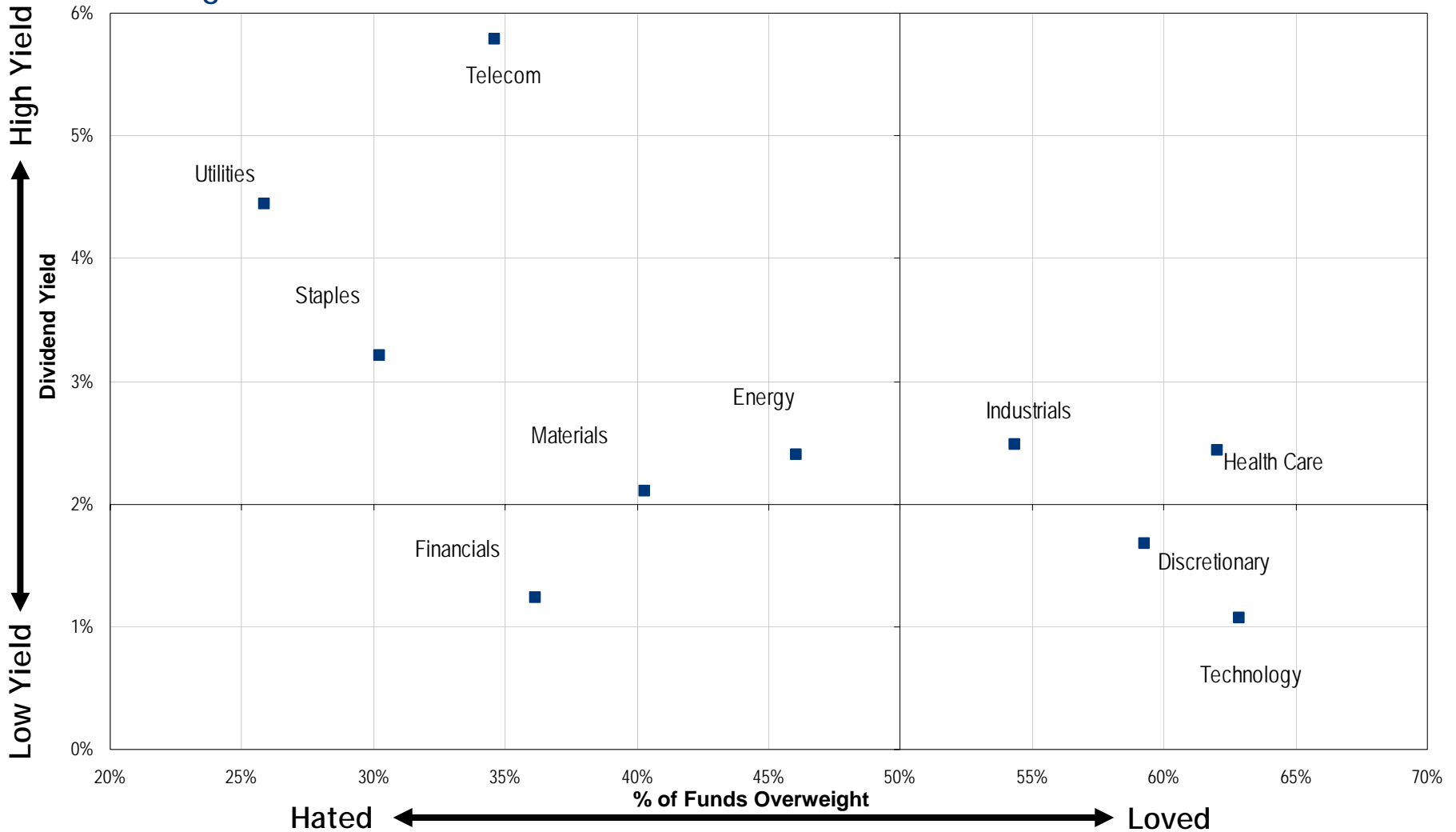
Demographics argue for an increase in demand for yield

Percentage of US population older than 65



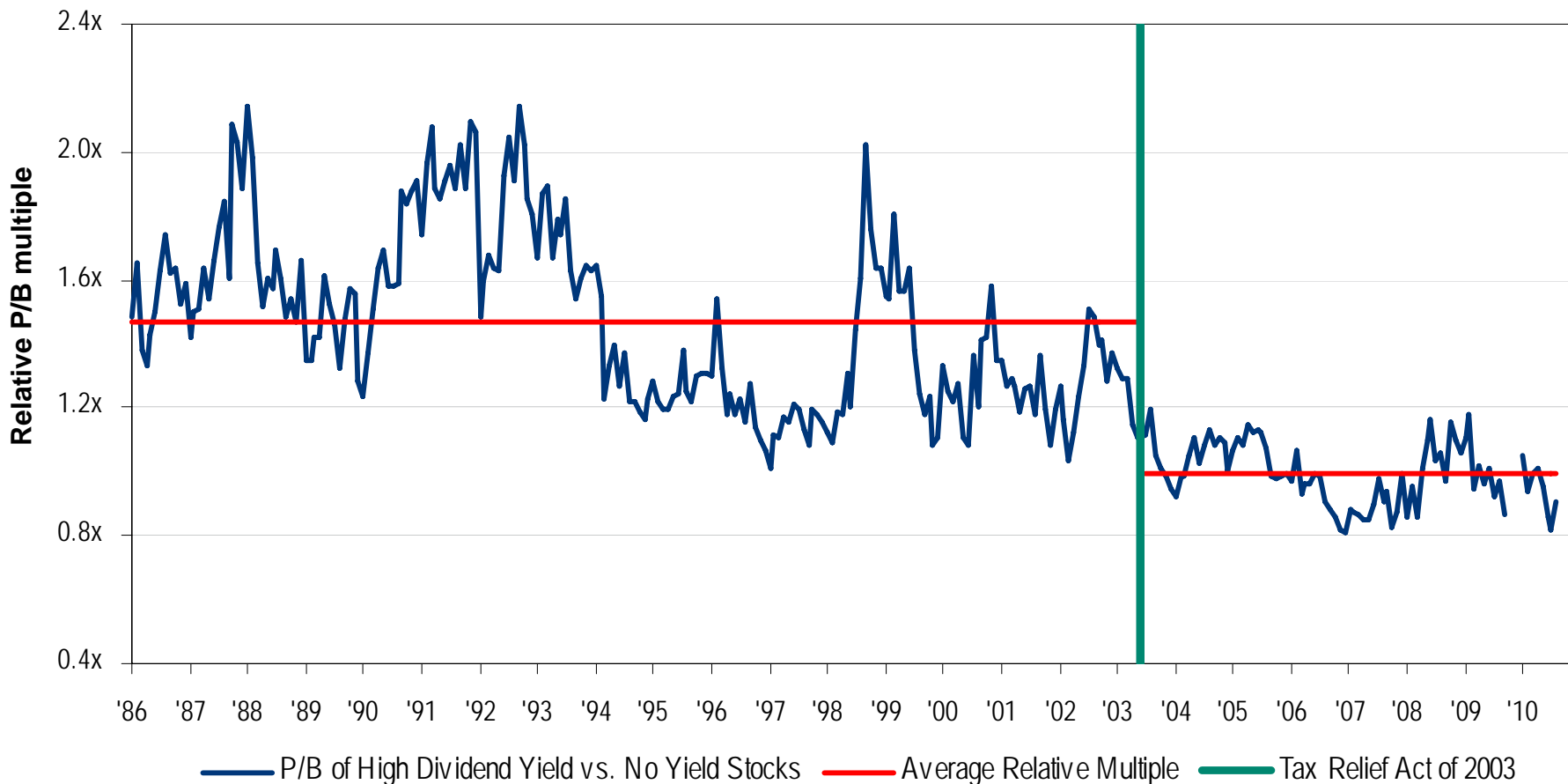
Still early - yield still underweight

Sectors with high dividend yield are generally underweighted by active managers



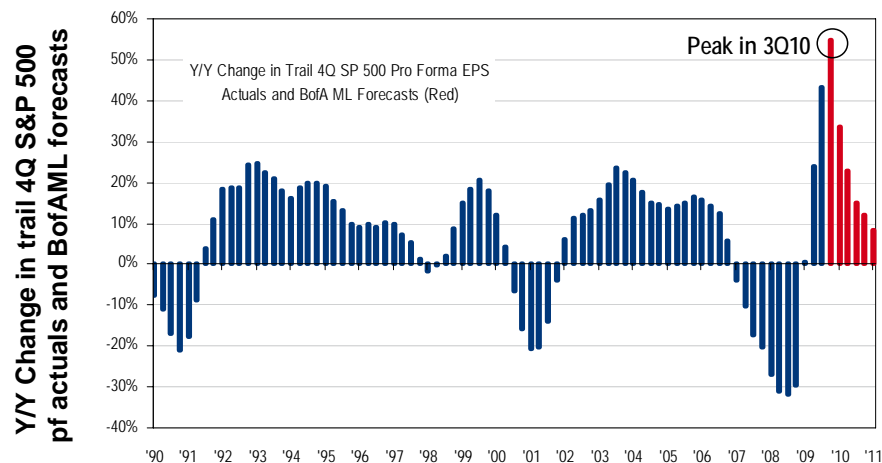
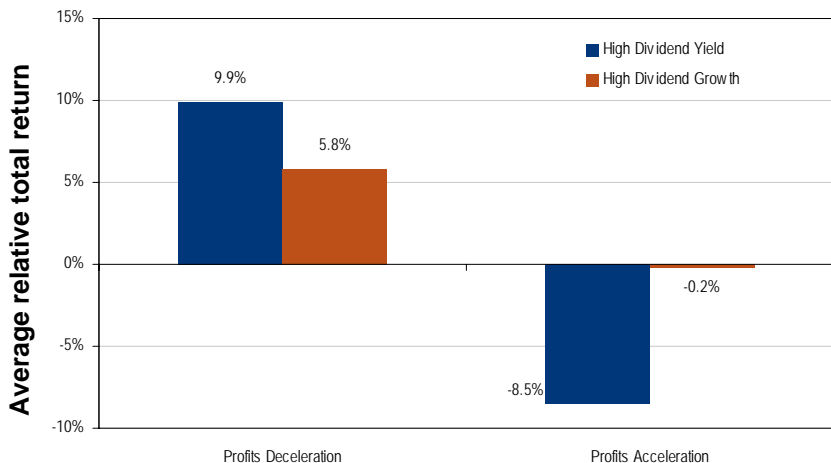
Taxes don't matter as much as growth

Dividend yield grew *less* expensive after the Bush Tax Cuts
Relative Price to Book of High Dividend Yield vs. No Dividend Yield stocks

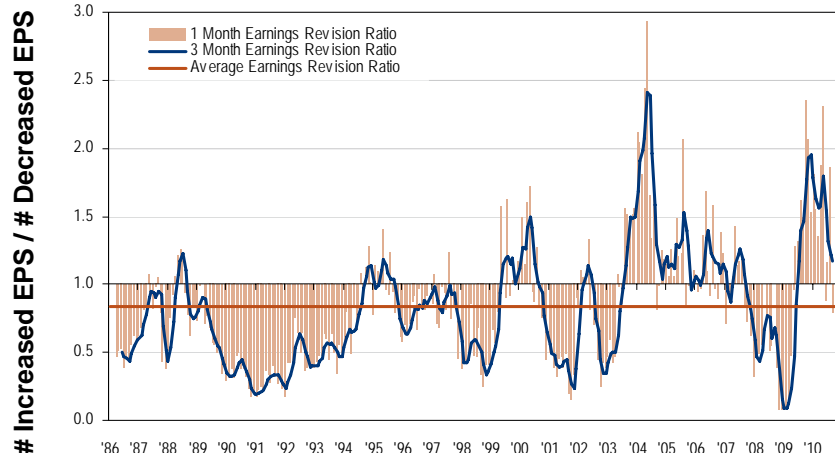
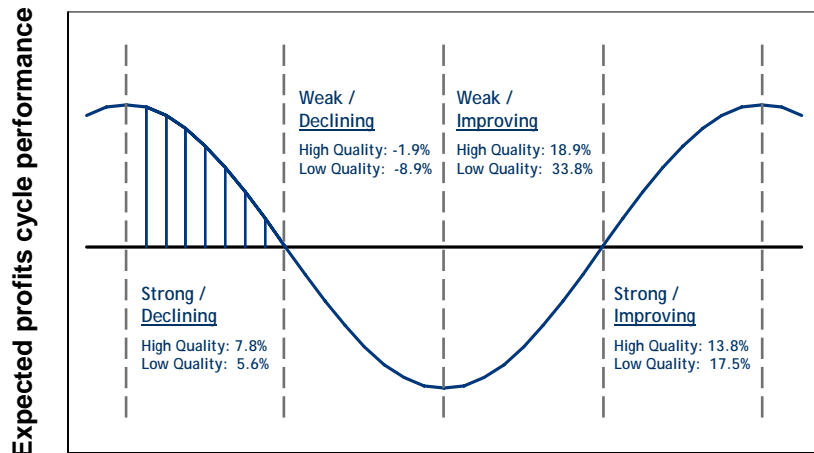


Cyclical case for dividends

Dividend paying stocks perform better in slow growth environments

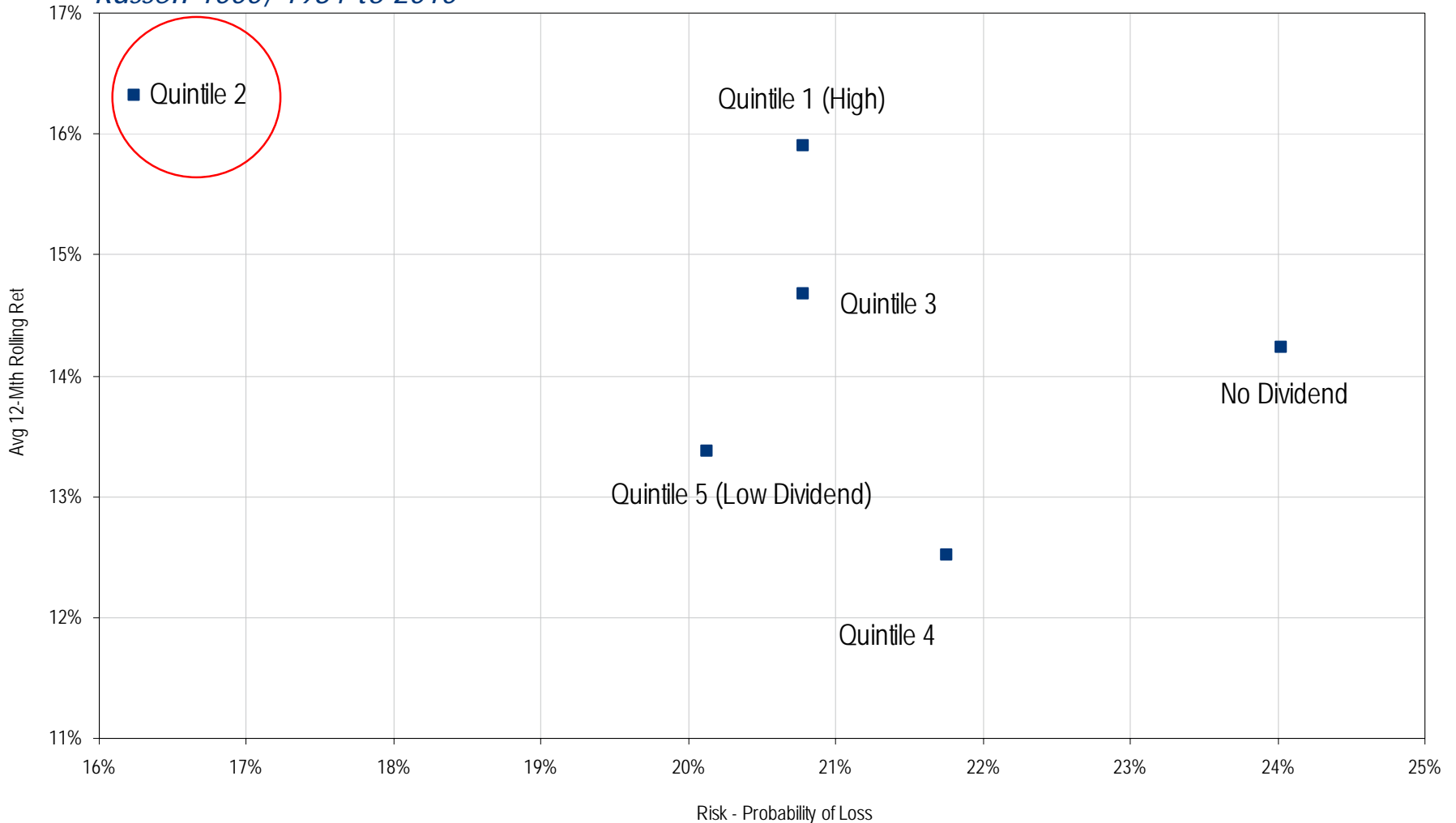


Quality outperforms during periods of a declining revision ratio Dividend paying companies are generally higher quality



Quant's guide: Quintile 2

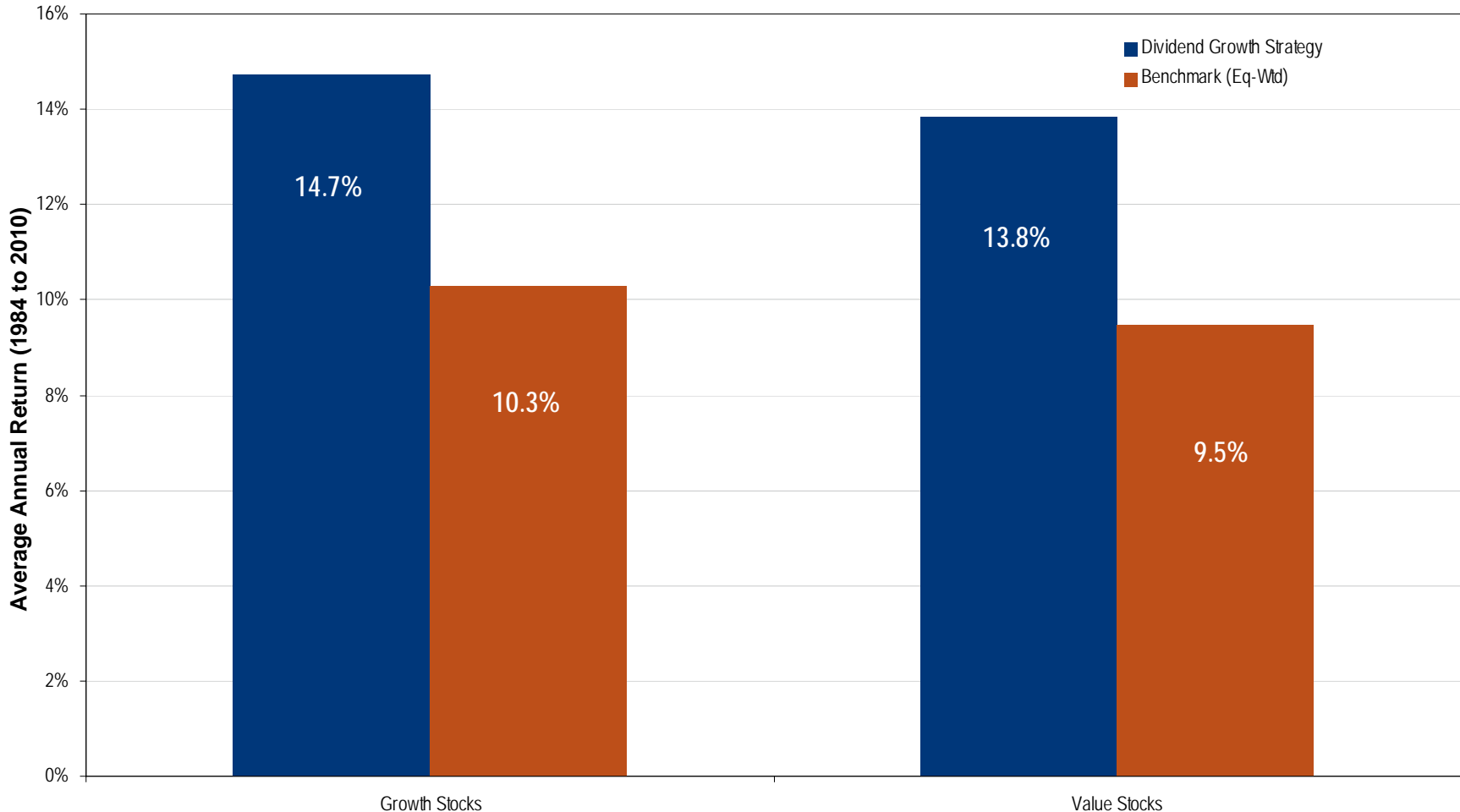
Quintile 2 has offered the highest total return and the lowest downside risk
*Average annual returns vs. downside risk of quintiles by dividend yield in the
 Russell 1000, 1984 to 2010*



Do dividends signal a company is ex-growth?

Stocks with growing dividends outperform by the same amount in the Russell 1000 Growth Benchmark as in the Value benchmark

Top Decile by Dividend Growth in Russell 1000 Growth & Value benchmarks, 1984 to 2010



What about share repurchase?

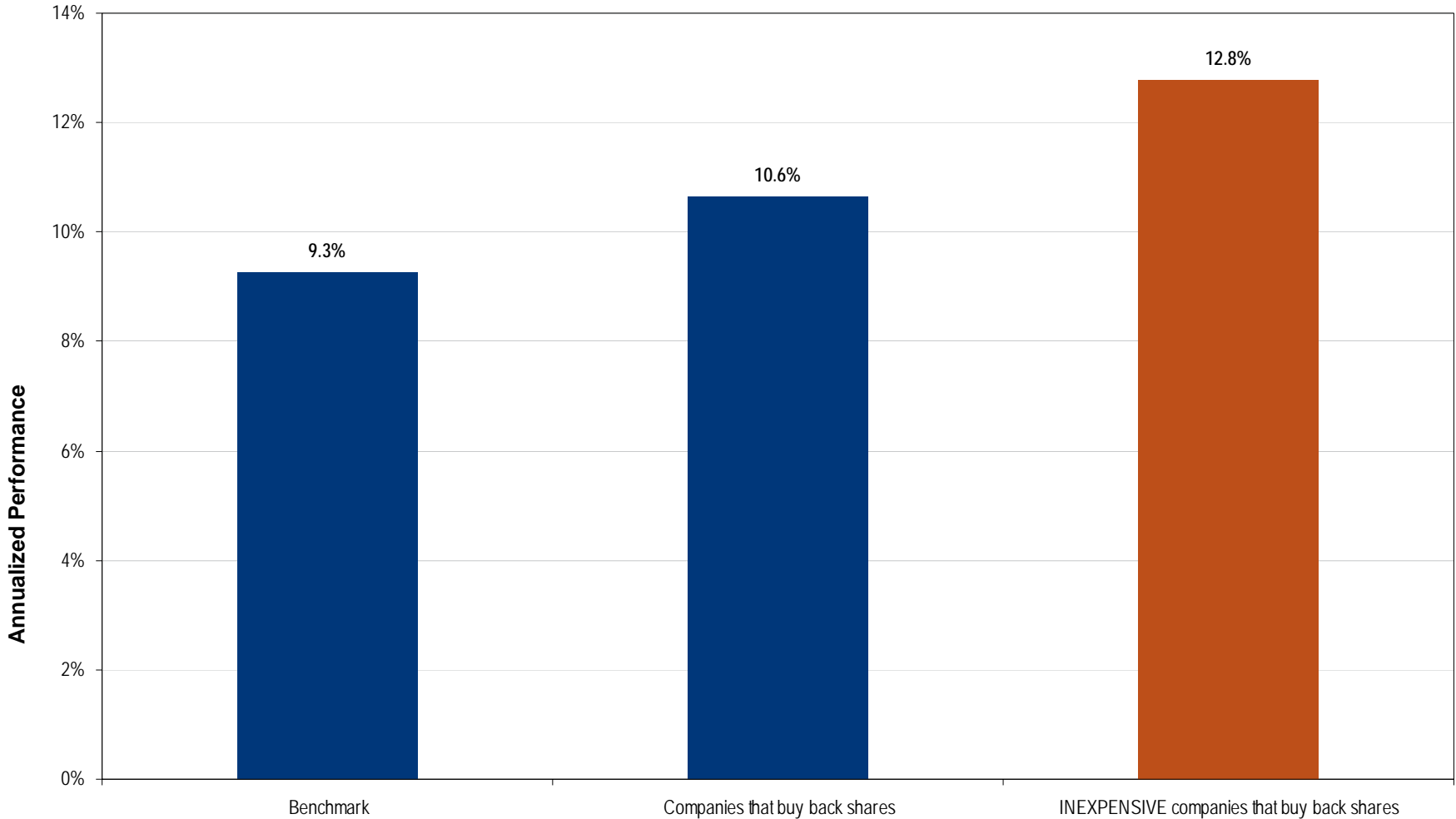
Companies with the largest share count reductions have flat-lined since '03
Index of Relative Performance of Top Decile SP 500 by Share Repurchase



When do share repurchases work?

When the stock is actually inexpensive...

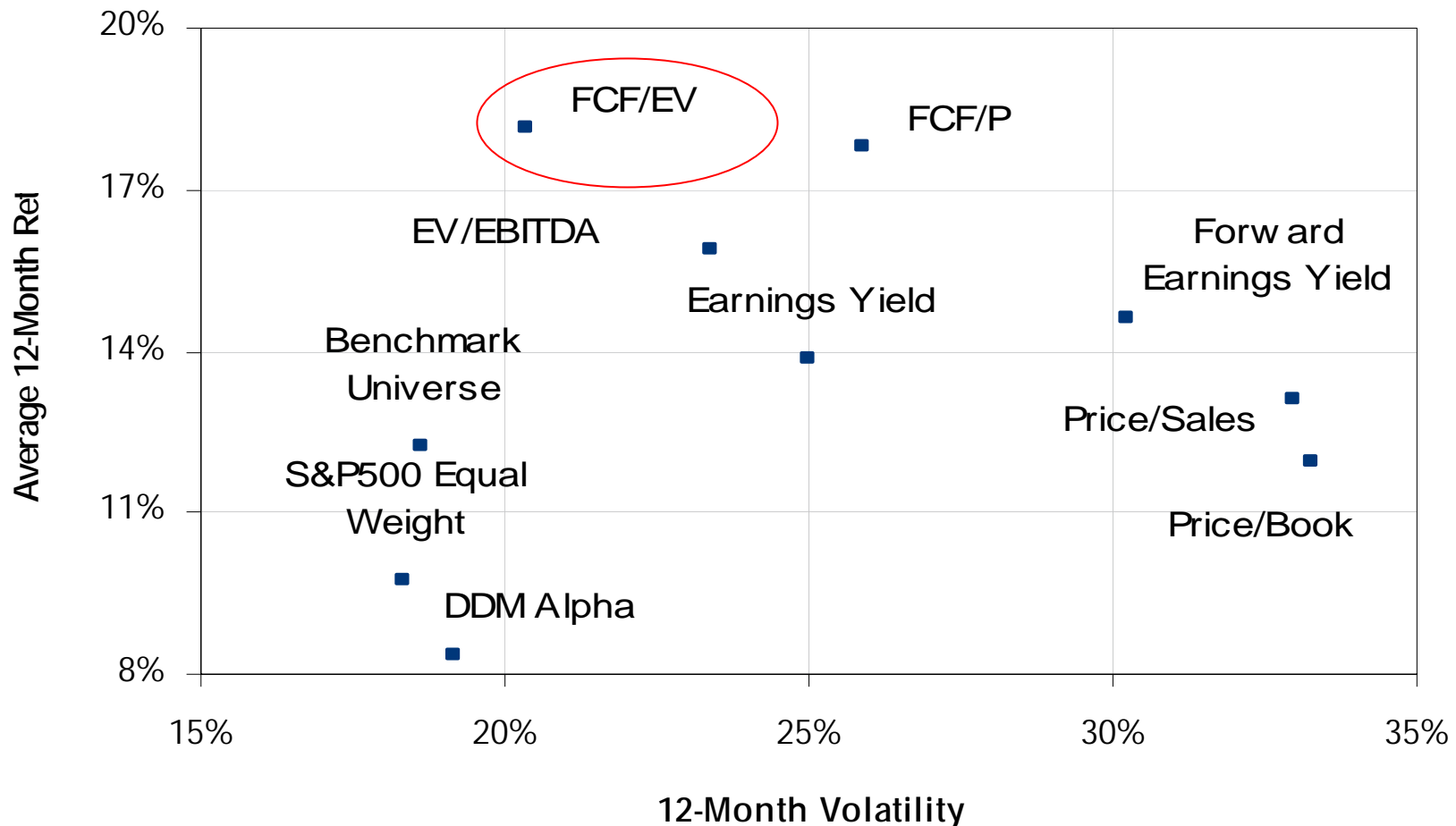
Top 50 stocks in S&P 500 by various strategies, 1986 to 2010



M&A - Focus on Free Cash Flow to Enterprise Value

Investors may be better served valuing companies as though they were potential takeout candidates

FCF/EV vs. other valuation factors, risk reward characteristics



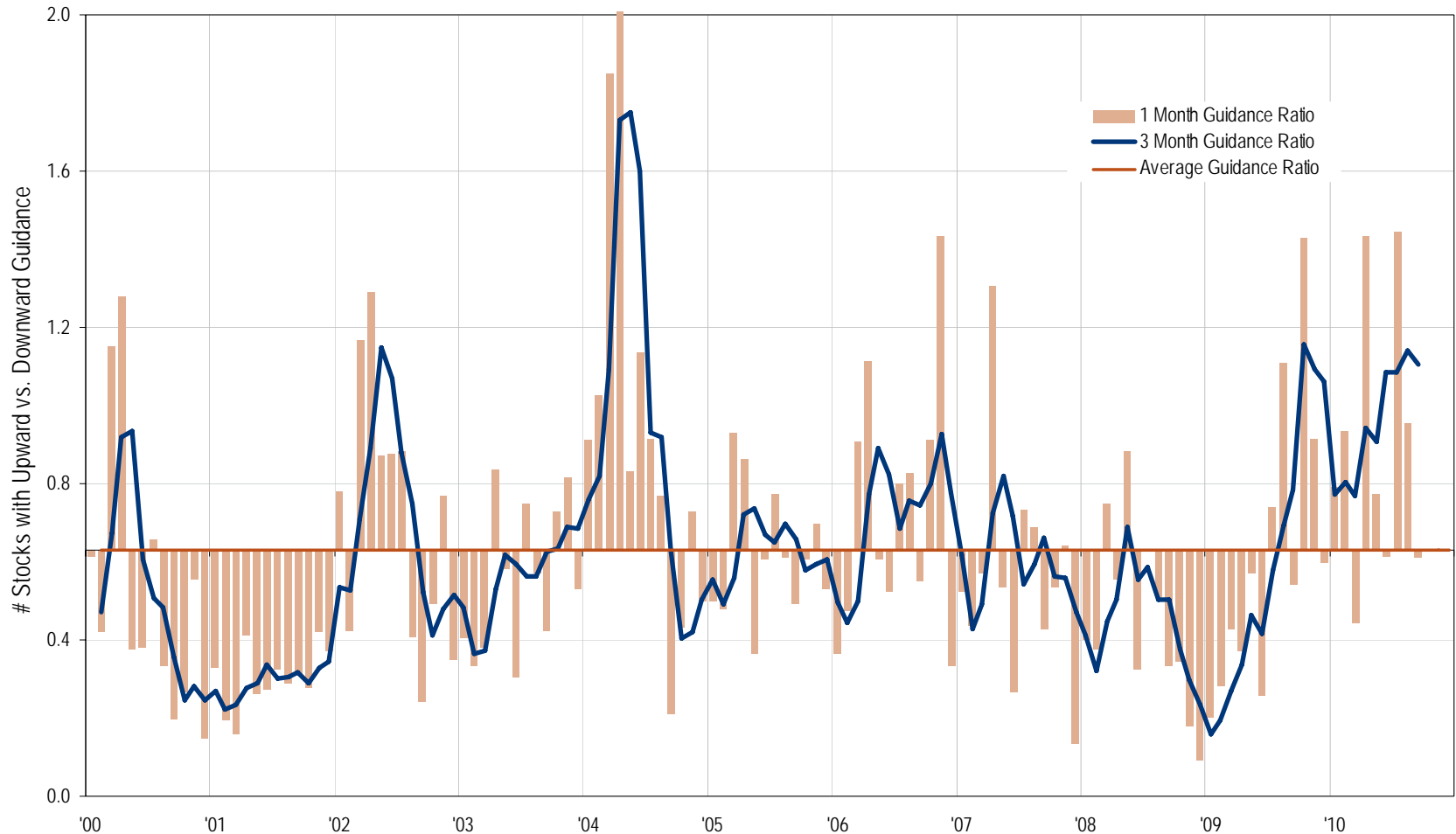
Earnings Preview

This slide intentionally left blank

Guidance ratio weak but still above 3Q seasonal average

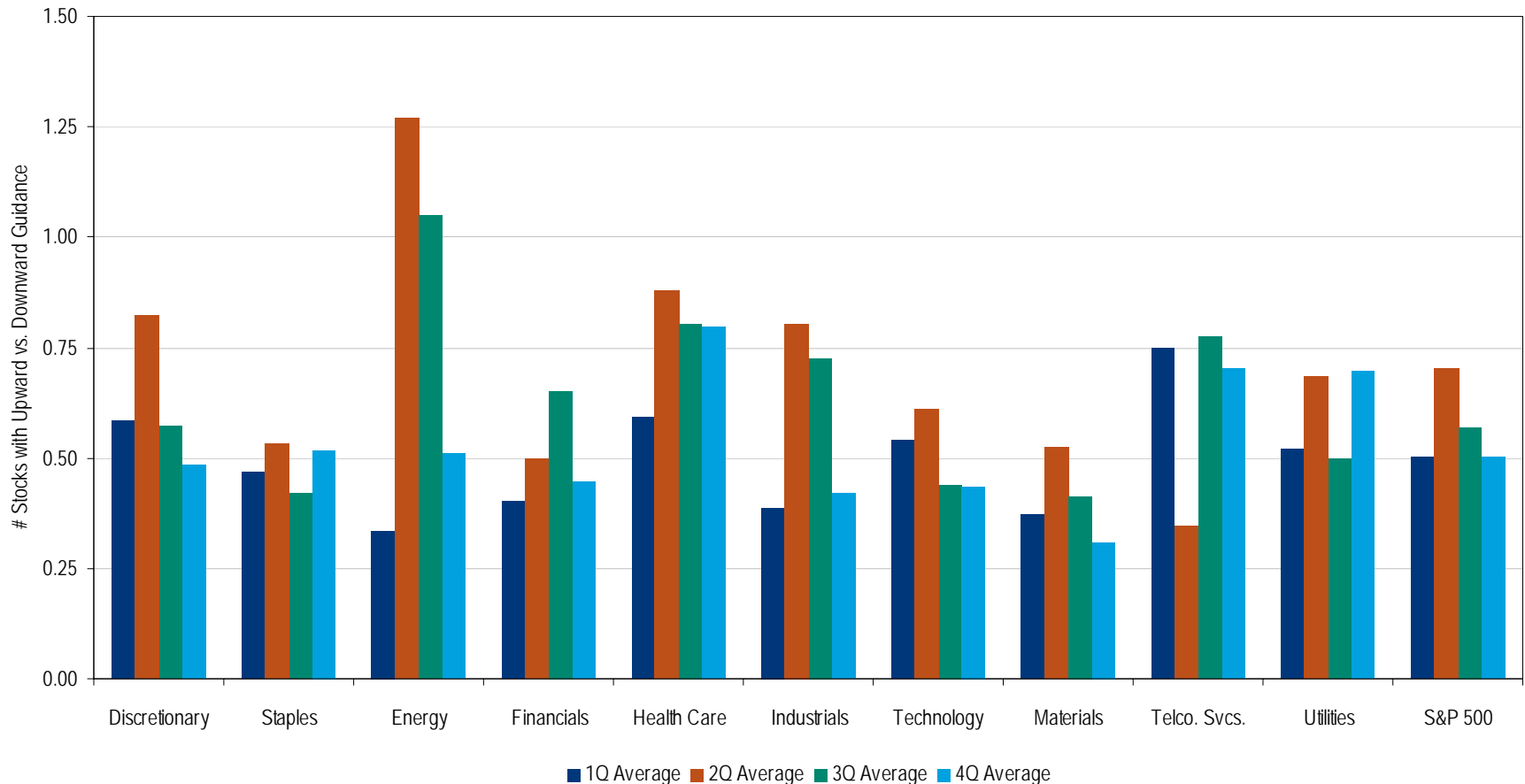
S&P 500 Management Guidance Ratio from January 2001 to September 2010

Guidance Ratio leads Earnings Revision Ratio



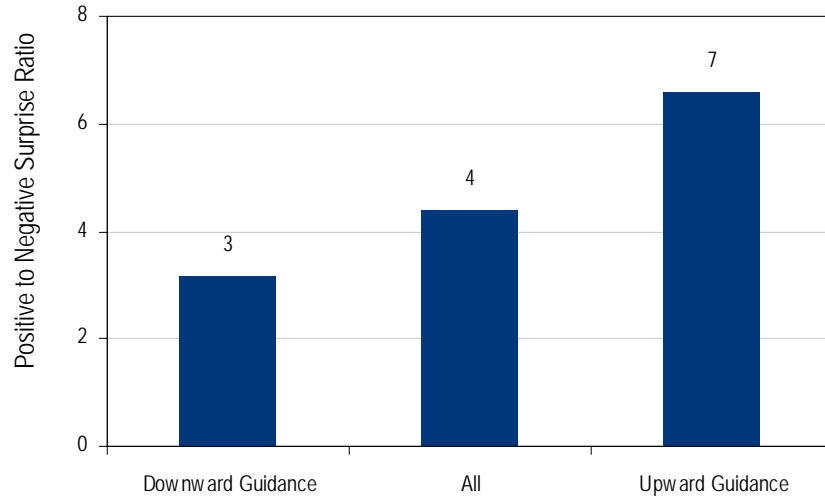
3rd quarter usually less positive

Average S&P 500 Management Guidance Ratios per quarter by sector
2000 to 2009



Guidance predicts surprise

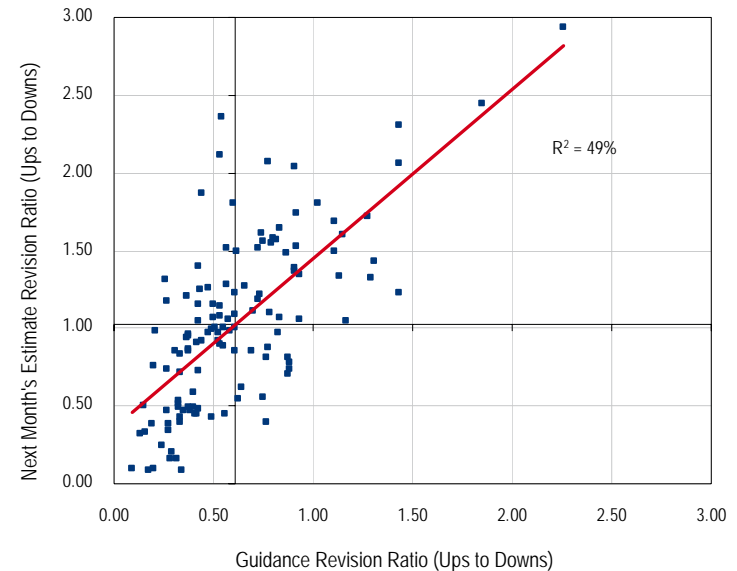
Positive guidance almost doubles the odds for a positive surprise



Guidance and subsequent Positive/Negative surprise for S&P 500 companies (2001 to 2009)

Guidance ratio is an *early*, early indicator
Management talks, consensus walks:
Guidance ratio leads estimate revision ratio by a month

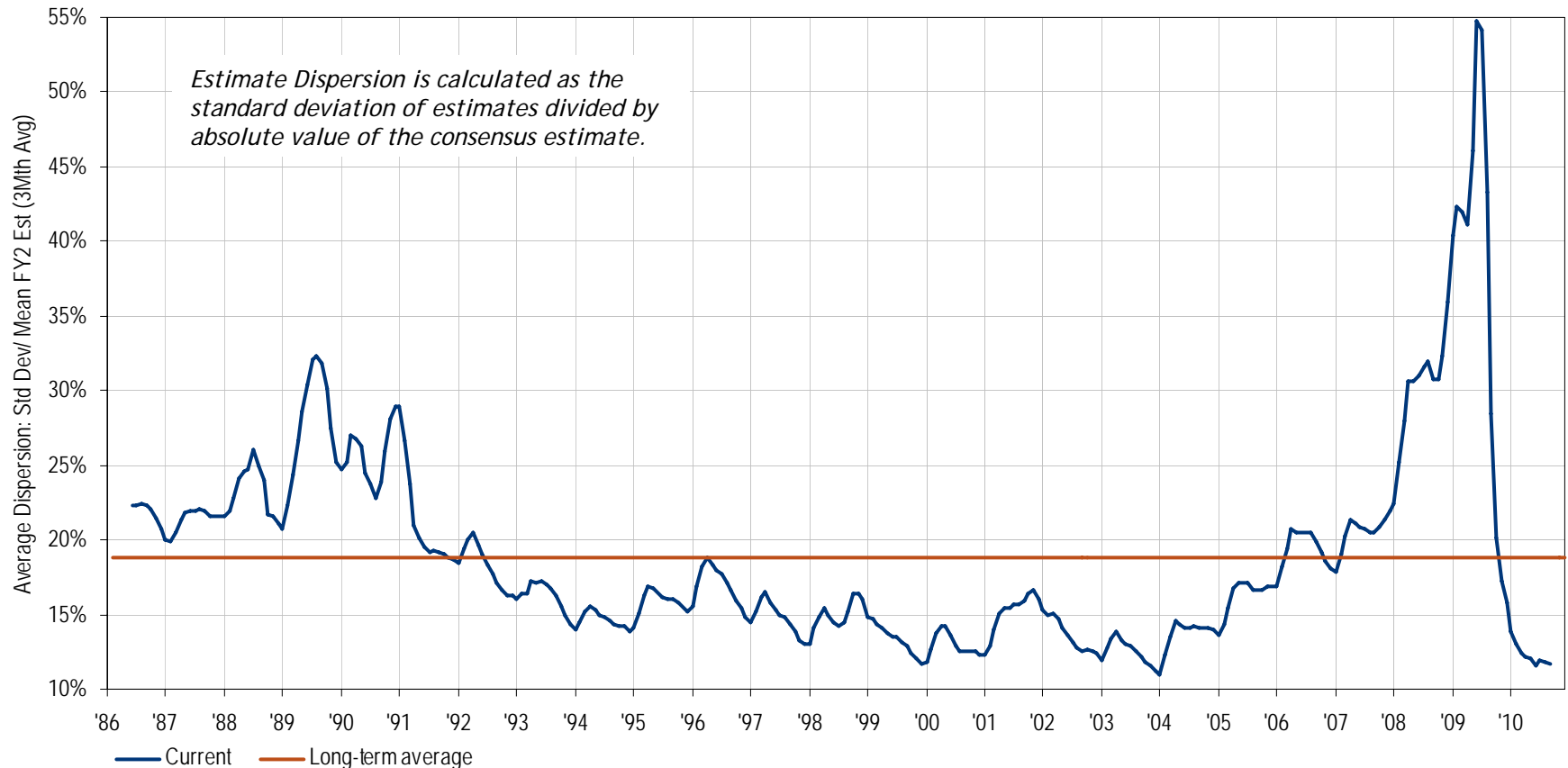
Guidance predicts surprise
Companies that issue positive profits guidance are almost twice as likely to beat expectations in the subsequent quarter



Low dispersion = fewer surprises, bigger rewards

Surprisingly low levels of dispersion, given backdrop of macro uncertainty and regulatory risk...

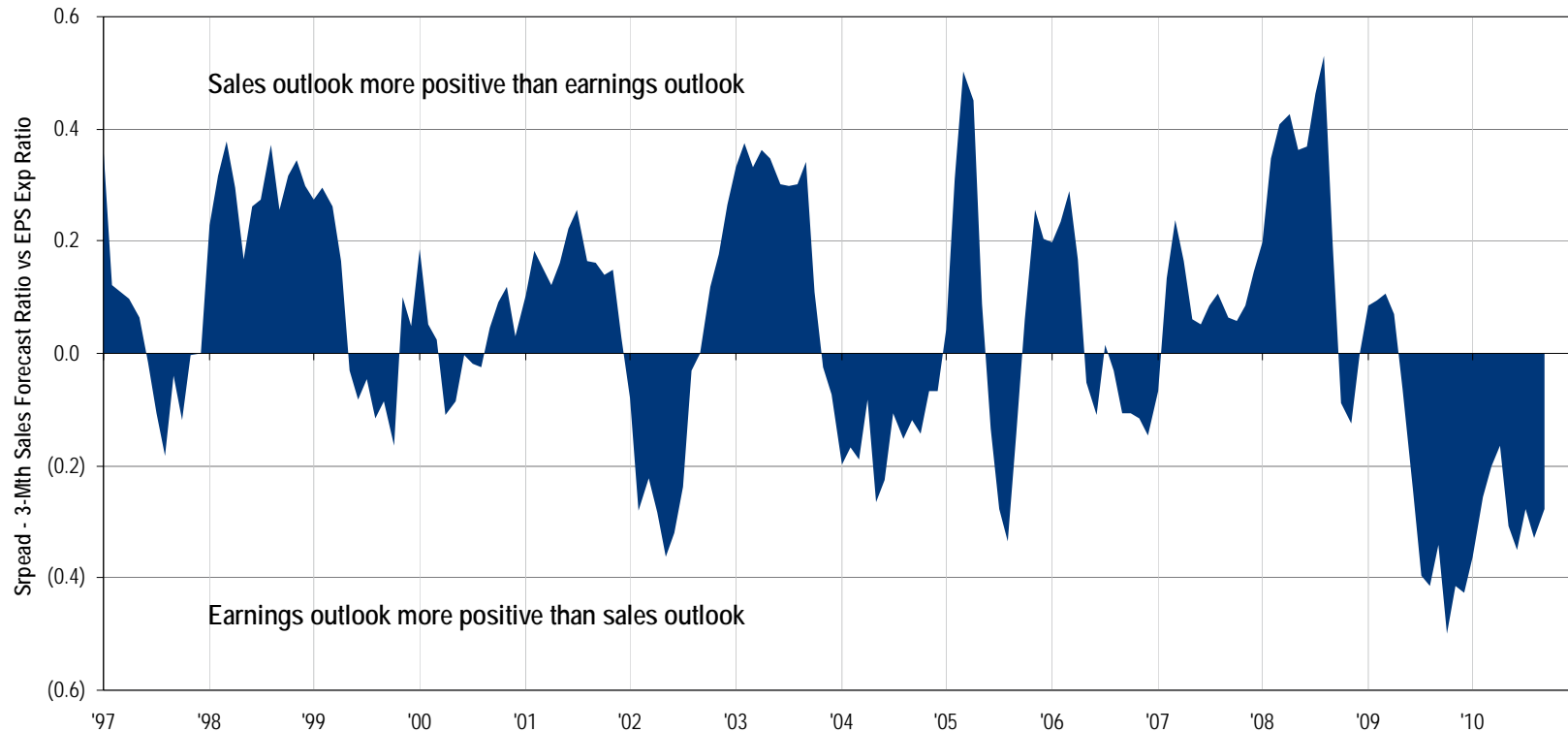
Average dispersion of FY2 S&P500 Estimates



Top-line / bottom-line still an issue....

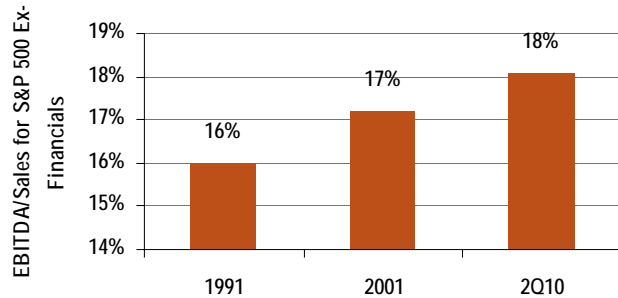
After moderating in early 2010, sales upgrades fell behind earnings upgrades in May and June, but began improving in July

3-Mth Sales Forecast Revision Ratio - 3Mth EPS Estimate Revision Ratio, '97 to '10



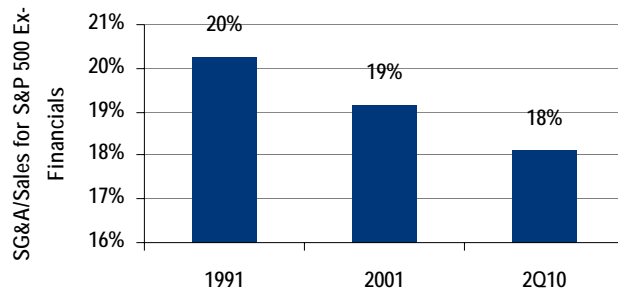
Margins aren't stretched ... but are getting there

S&P 500 Ex Financials EBITDA/Sales today vs. Previous troughs in profits cycle



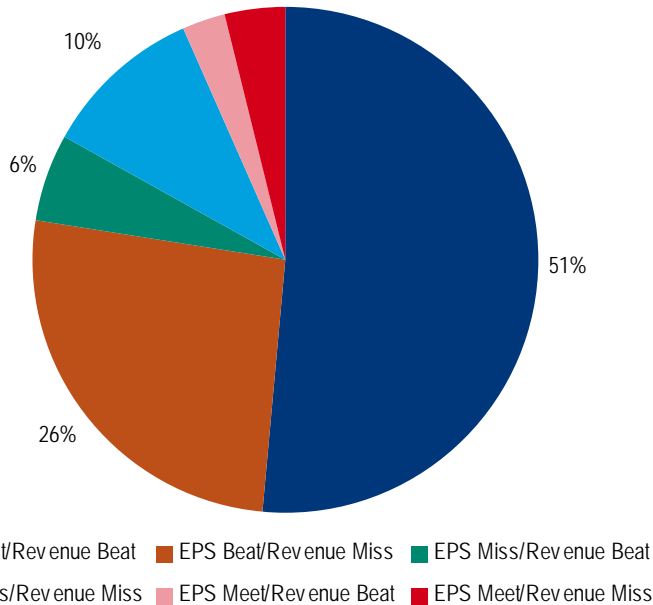
EBITDA margins
are higher today....

S&P 500 Ex Financials SG&A/Sales today vs. Previous troughs in profits cycle

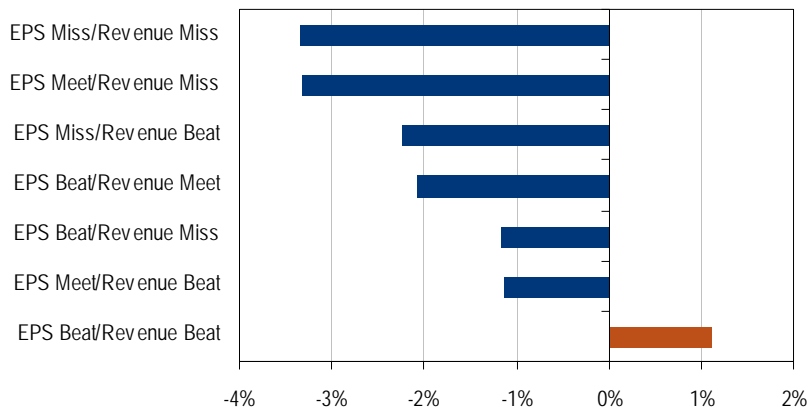


.....And costs are a
smaller proportion
of sales

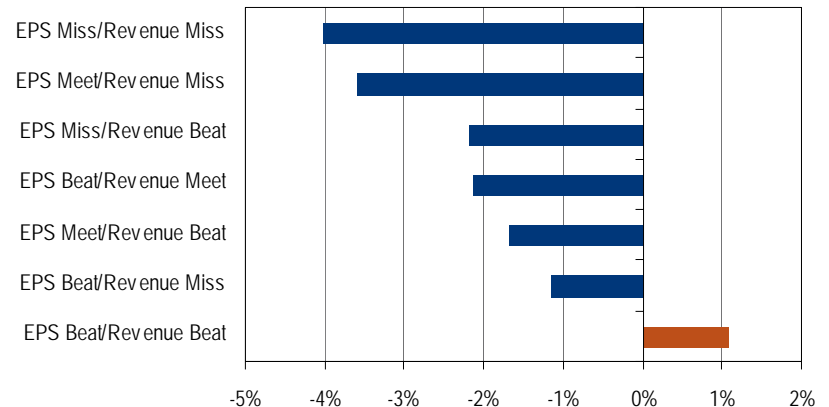
And top line beats matter more



- Q2 5-day and 1-day performance show the rewards for revenue and earnings beats.
- Only stocks that beat on both sales and earnings outperformed market on a 1-day and 5-day basis.
- On a 5-day basis a sales miss was more important than if the company met or missed earnings.



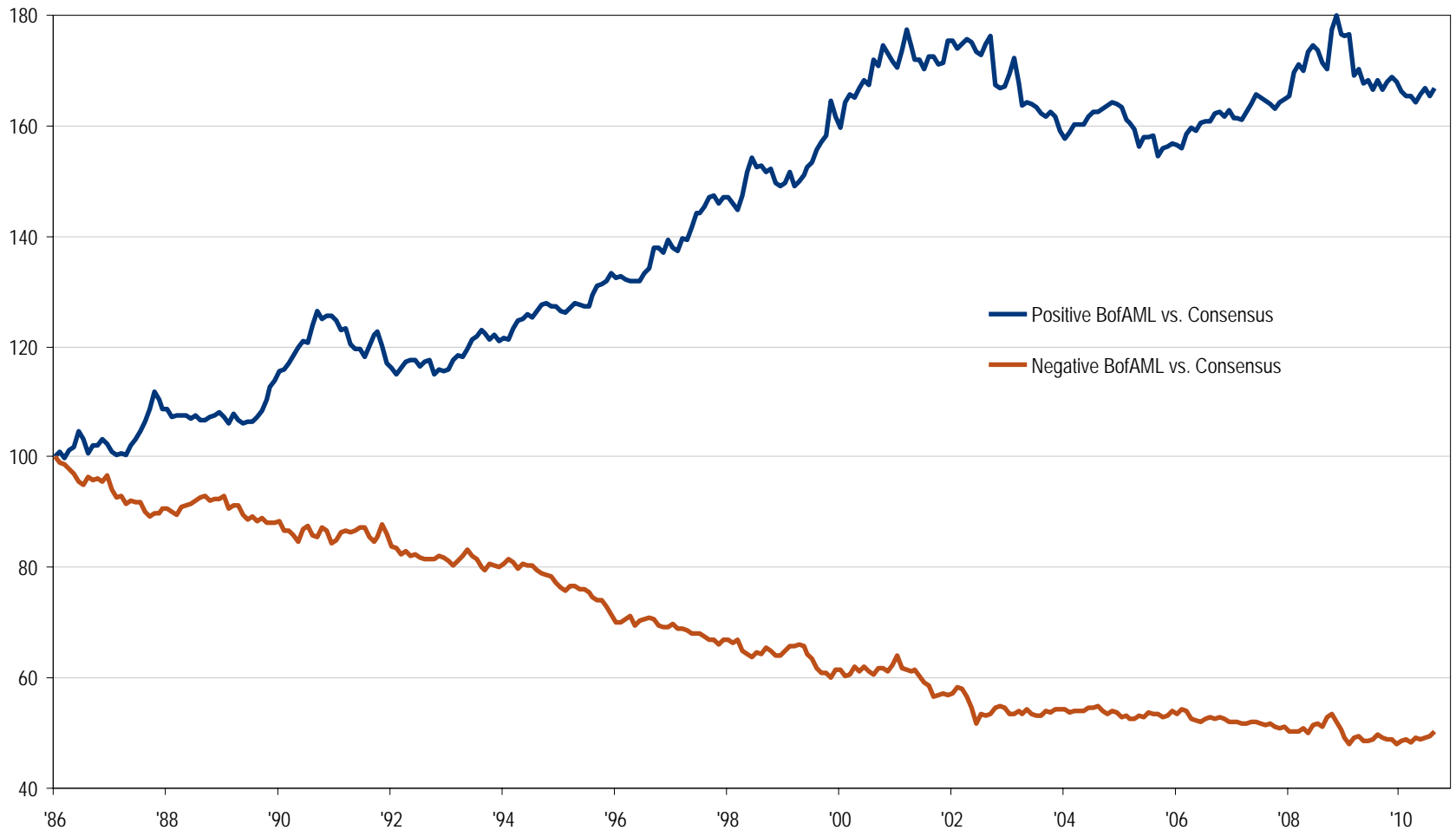
5-day relative performance



1-day relative performance

BofAML Positive & Negative Surprise Forecast Model

BofAML vs. Consensus historical returns (1986 to 2010)

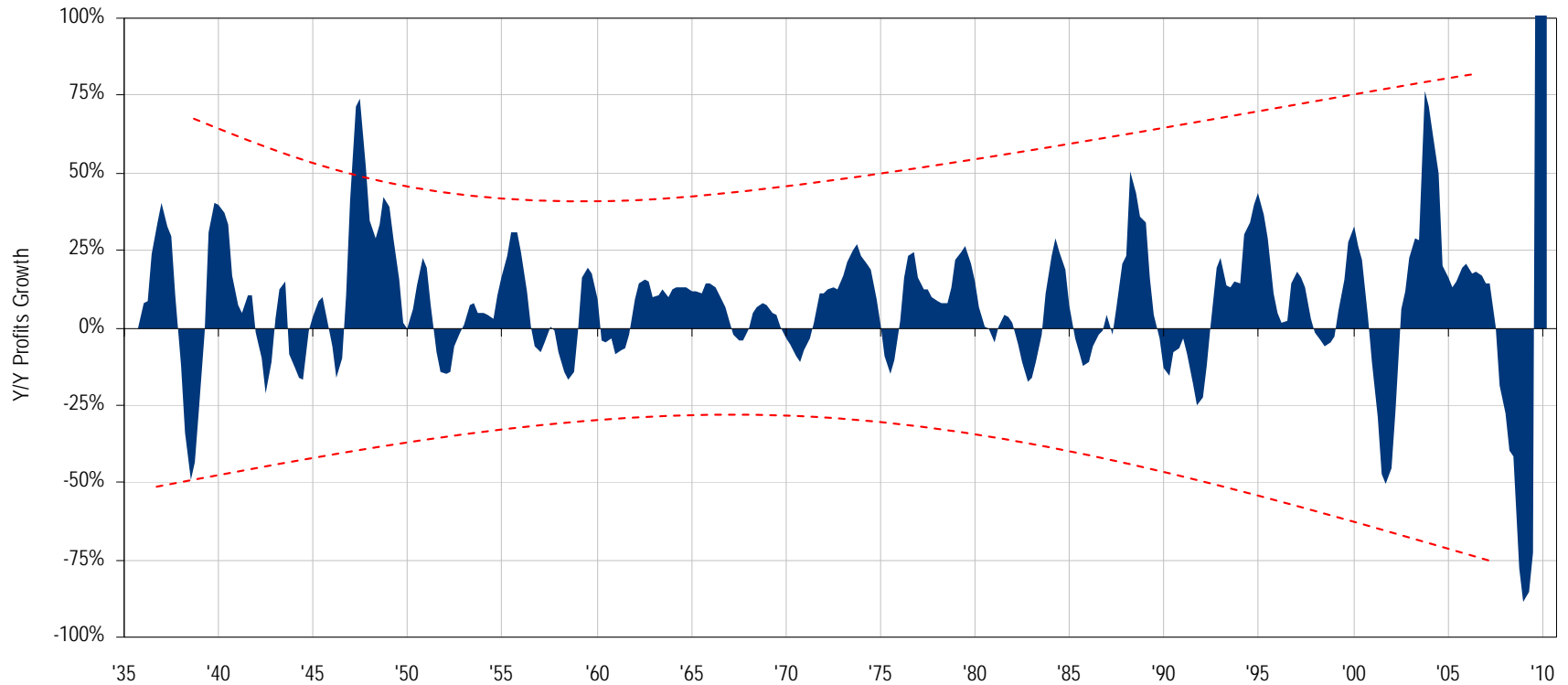


Outlook

This slide intentionally left blank

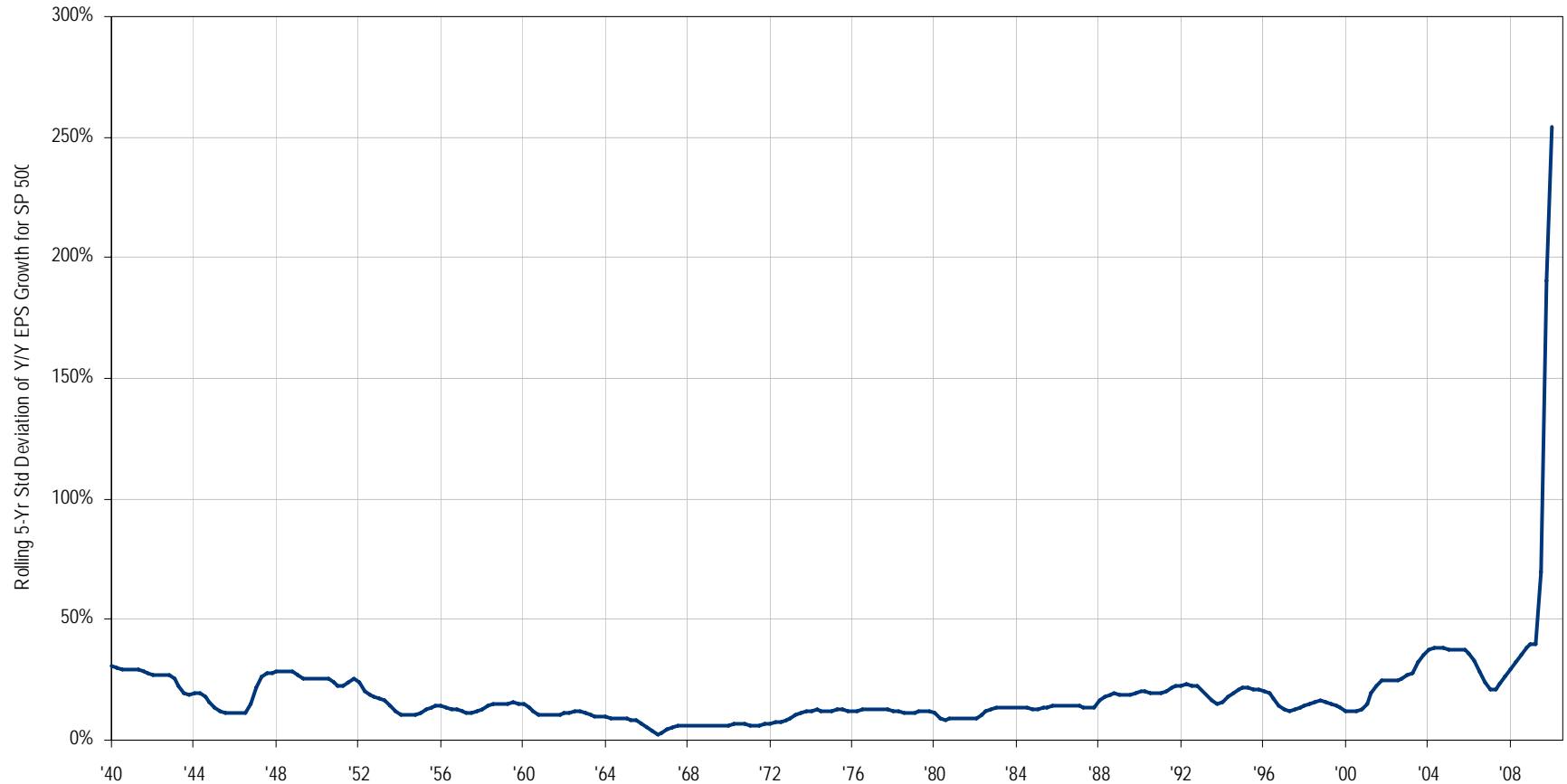
Profits cycle has had bigger swings

Since the 1970s, earnings growth has grown more variable
Y/Y EPS Growth for S&P 500, 1935 to 2010



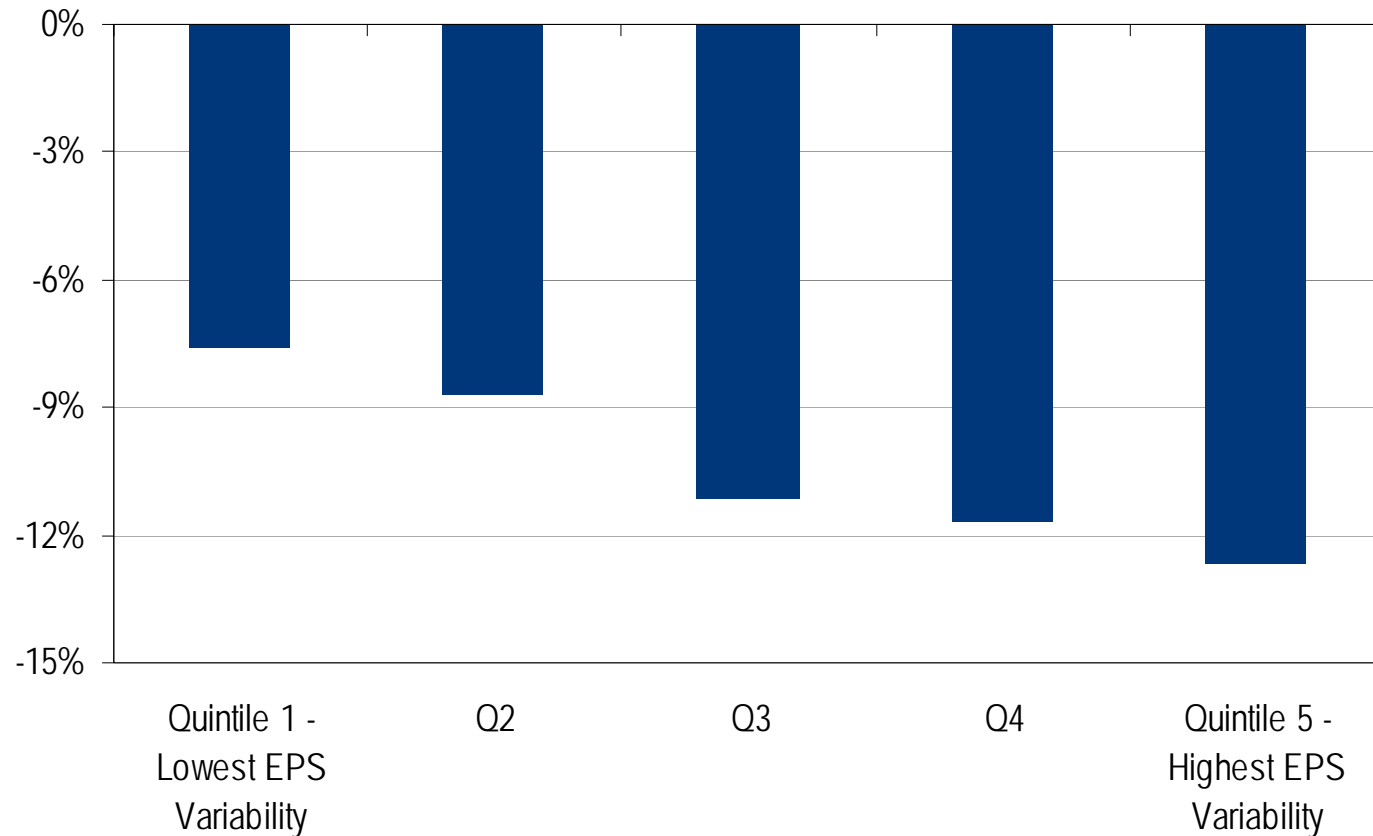
What's scarce? EPS stability

Earnings variability at a 70-year high - argues for a higher Equity Risk Premium
S&P 500 EPS Growth 5-Year Standard Deviation



Stable earners outperforming

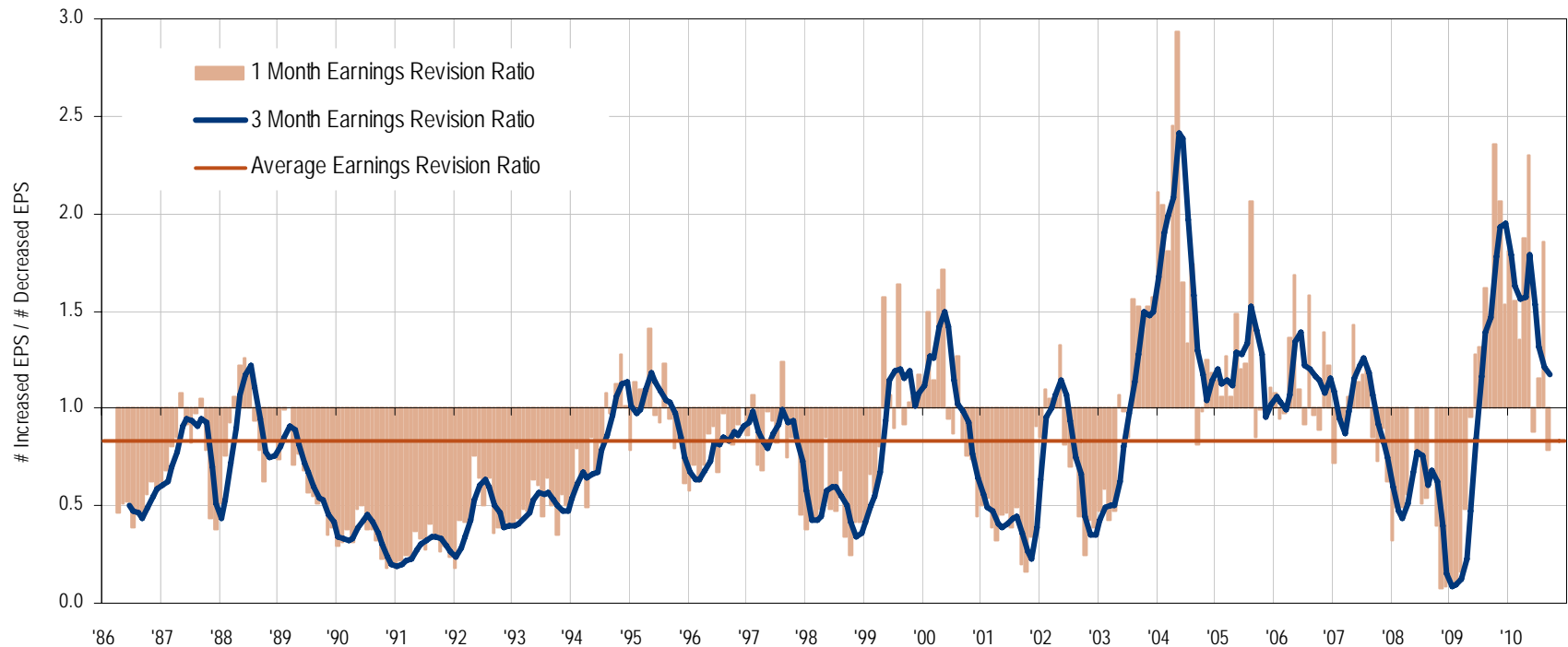
Earnings variability performance May - September 2010



US earnings revision ratio

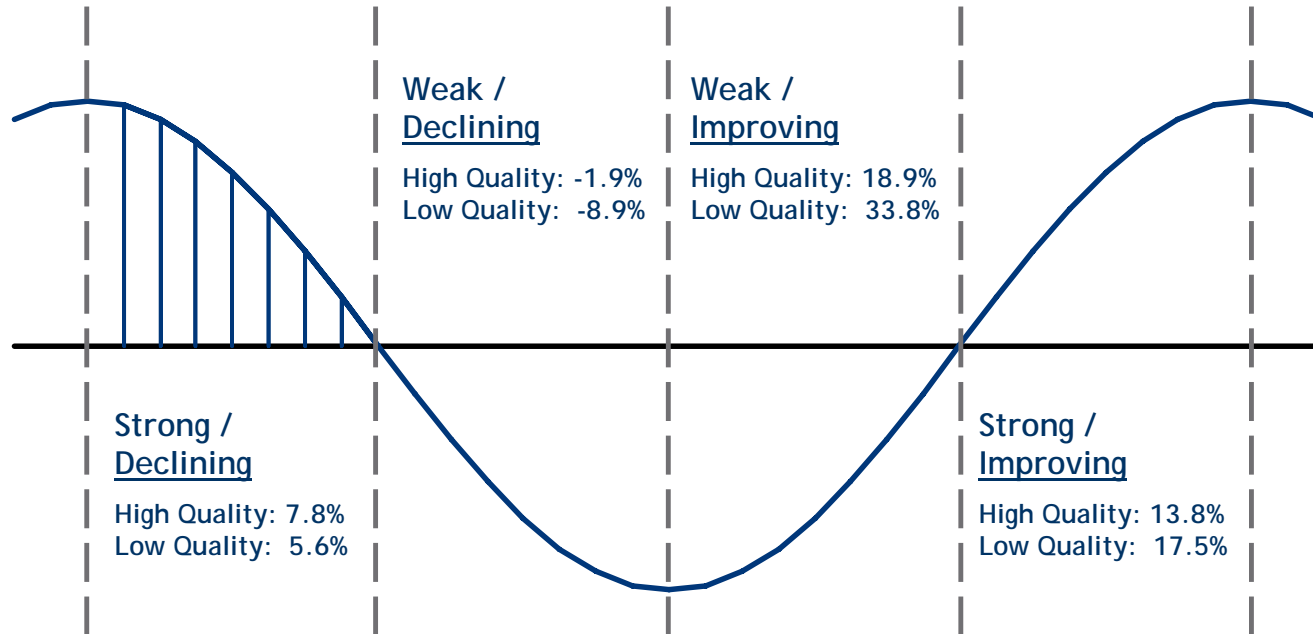
Declining breadth ratios

- *September saw poor earning revisions, with earnings revisions crossing below their long term average.*
- 1 and 3-Month Earnings Estimate Revision Ratios from January 1986 to September 2010

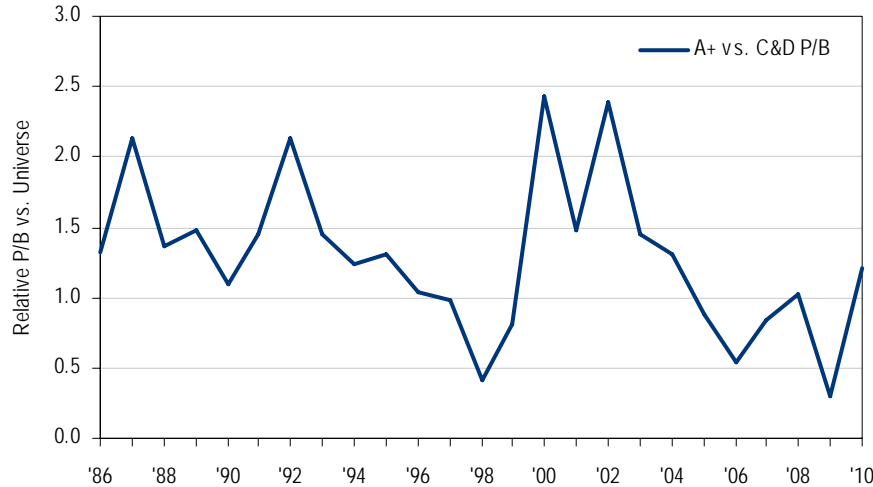


Falling revisions favors quality

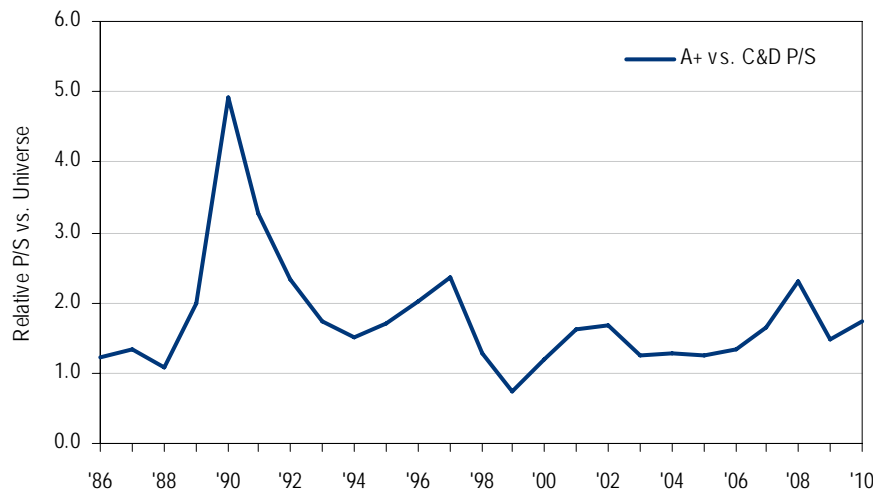
Estimate Revision Ratio stages and quality returns (1986 to 2010)



Valuation still argues for quality tilt



“A+” vs. “C&D” Price to Book relative to Benchmark (1986 to August 2010)



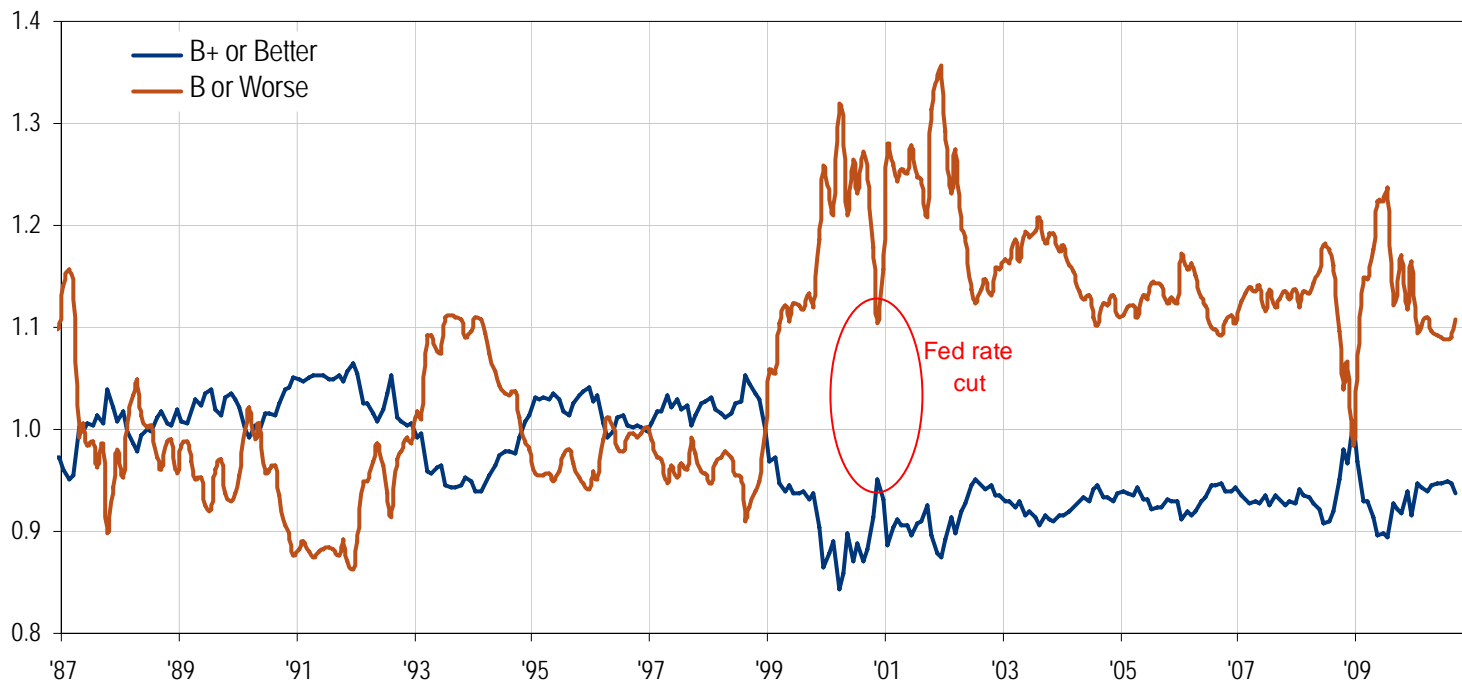
“A+” vs. “C&D” Price to Sales relative to Benchmark (1986 to August 2010)

Narrower premium on price to sales.

P/E valuation gap at '99 levels

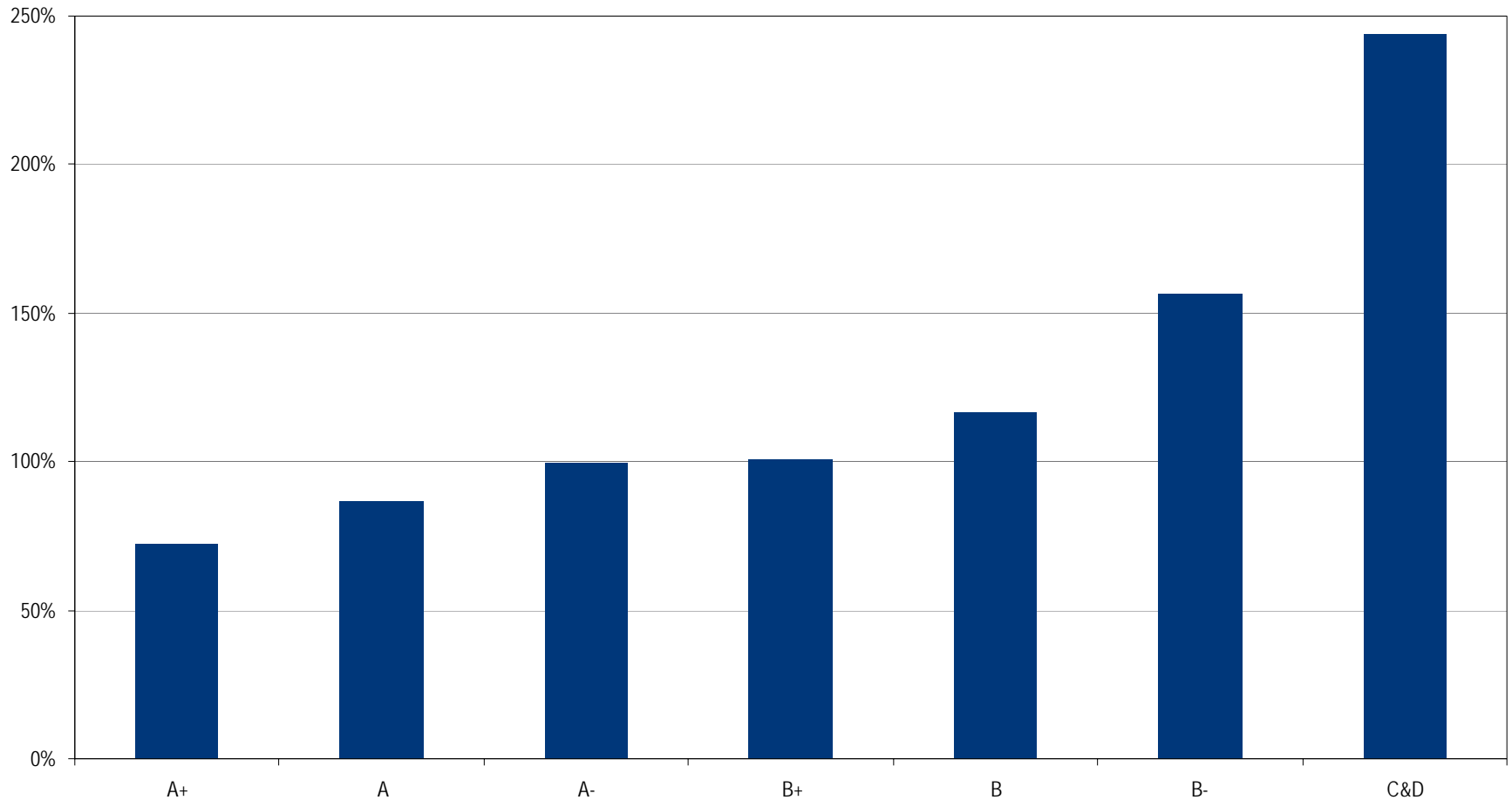
On price to earnings, high quality companies have been selling at a discount to low quality companies for the last decade. An atypically low cost of capital over the last decade may have been a driver for the consistent premium paid for risky stocks.

B+ or Better vs. B or Worse Relative Forward P/E (1986 to September 2010)



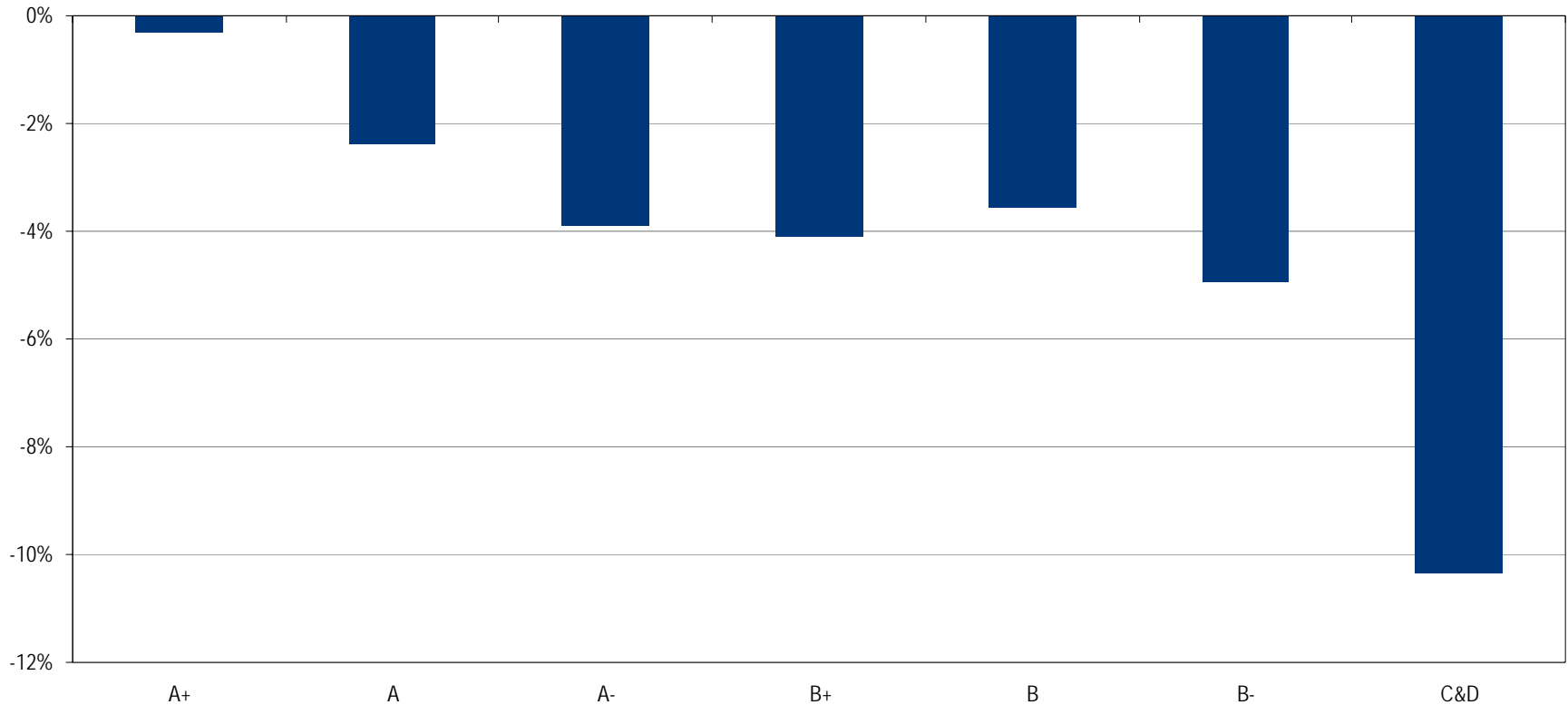
Reversal: 3/09 - 4/10 - low quality

BofAML USQS Quality Indices Price Performance - March 2009 - April 2010



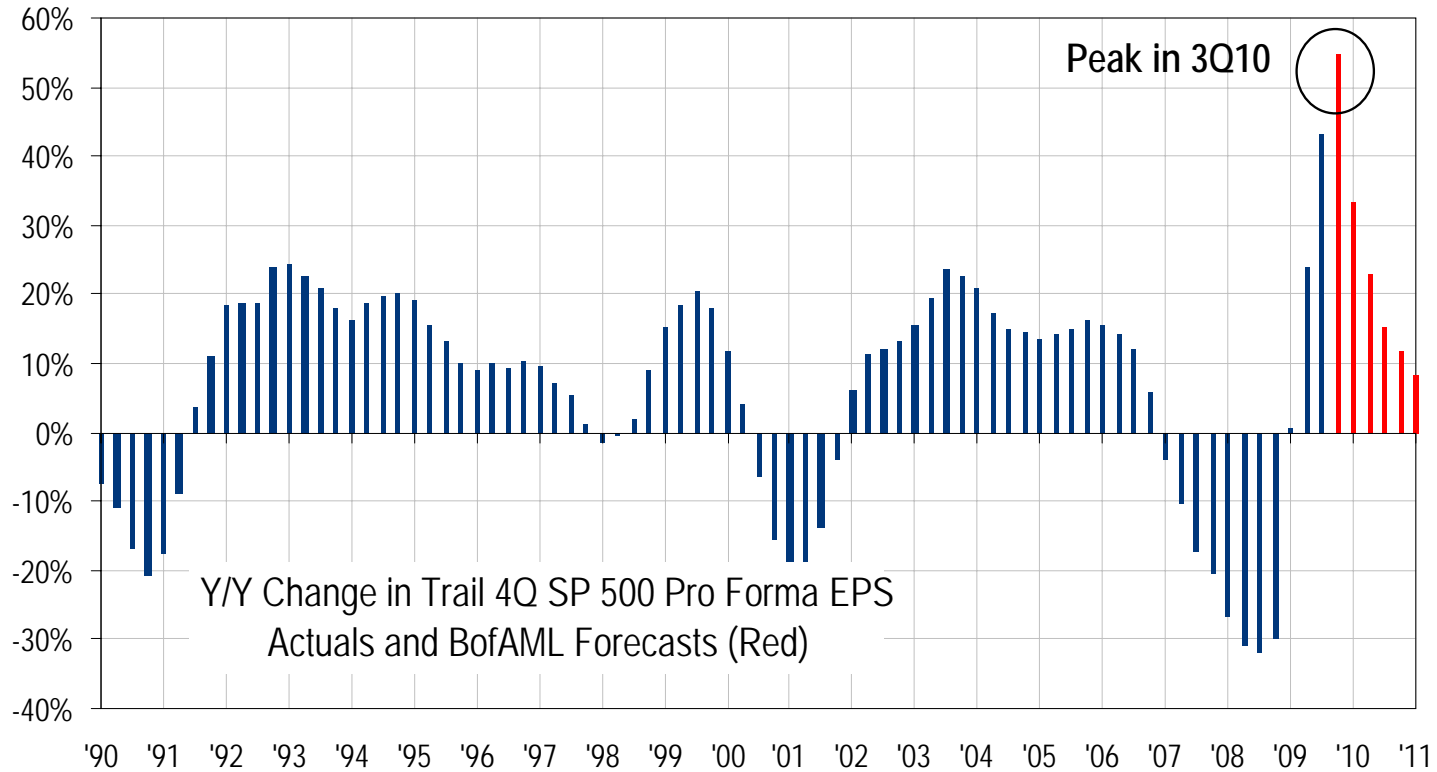
5/10 - 9/10- high quality

BofAML USQS Quality Indices Price Performance



Profits growth peaking

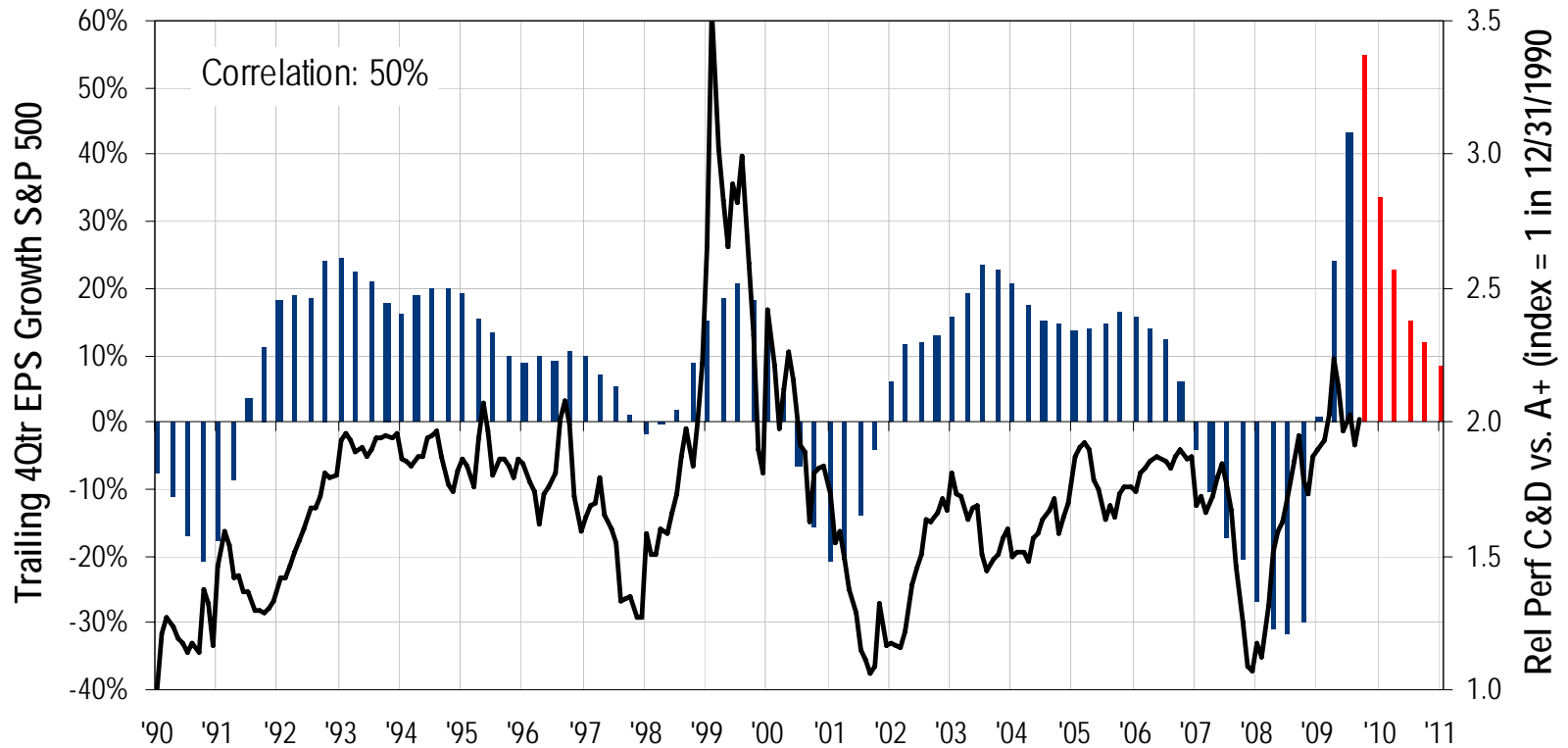
Actual + BofA Merrill Lynch forecast pro forma EPS growth



Low quality ending its reign

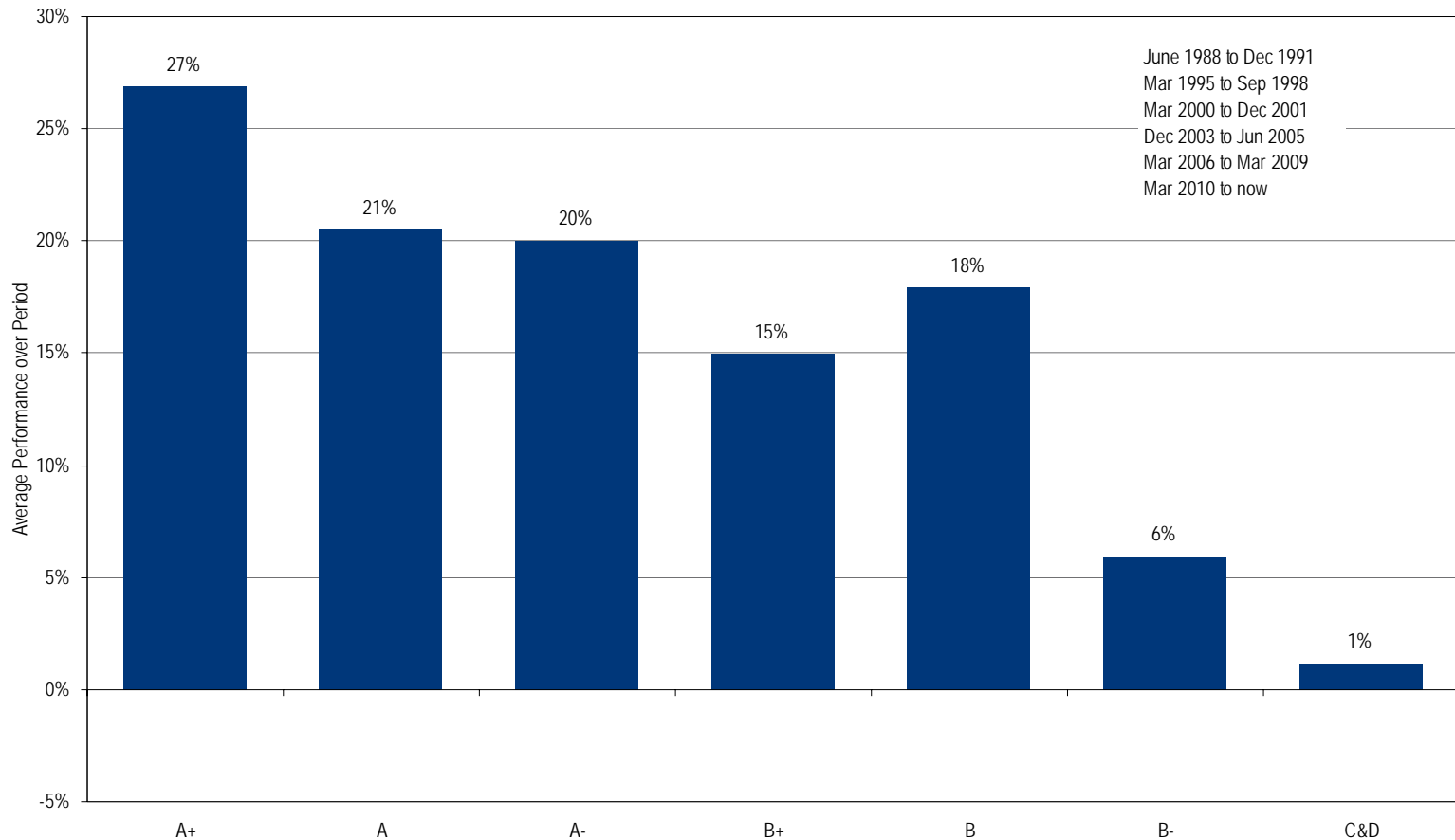
C&D vs. A+ Relative Performance and Corporate Profits Growth

Quarterly from 1990, based on 4-quarter Reported EPS for SP500, 2010 growth re-scaled



Slowing growth favors quality

Average Performance by Quality during periods of profits deceleration Last Six Cycles, 1986 to 2010



The 2004 Playbook

What's the same as 2004?

- 2002-2003 = 2008-2009: quality, then beta
- Revision ratios - strong but slowing
- Low dispersion of estimates
- Profits growth beginning to trend
- Nigel Tupper's Global Wave is still improving

Suggest fundamental factors could work

What's different:

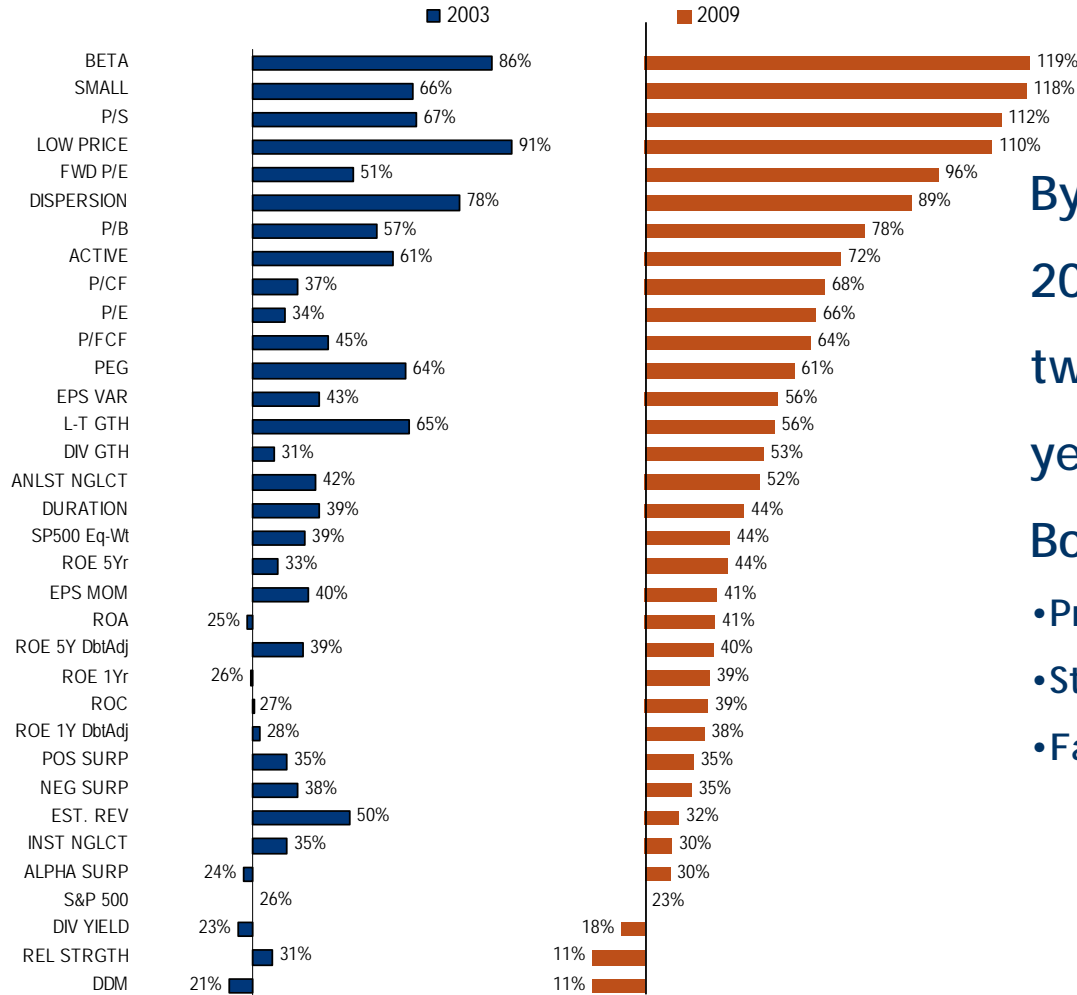
- Macro risk elevated
- Higher volatility
- Intra-stock correlations higher
- Earnings variability higher

All point to an overweight of higher quality issues

This slide intentionally left blank

If 2003 = 2009

Strategy performance in '03 and '09



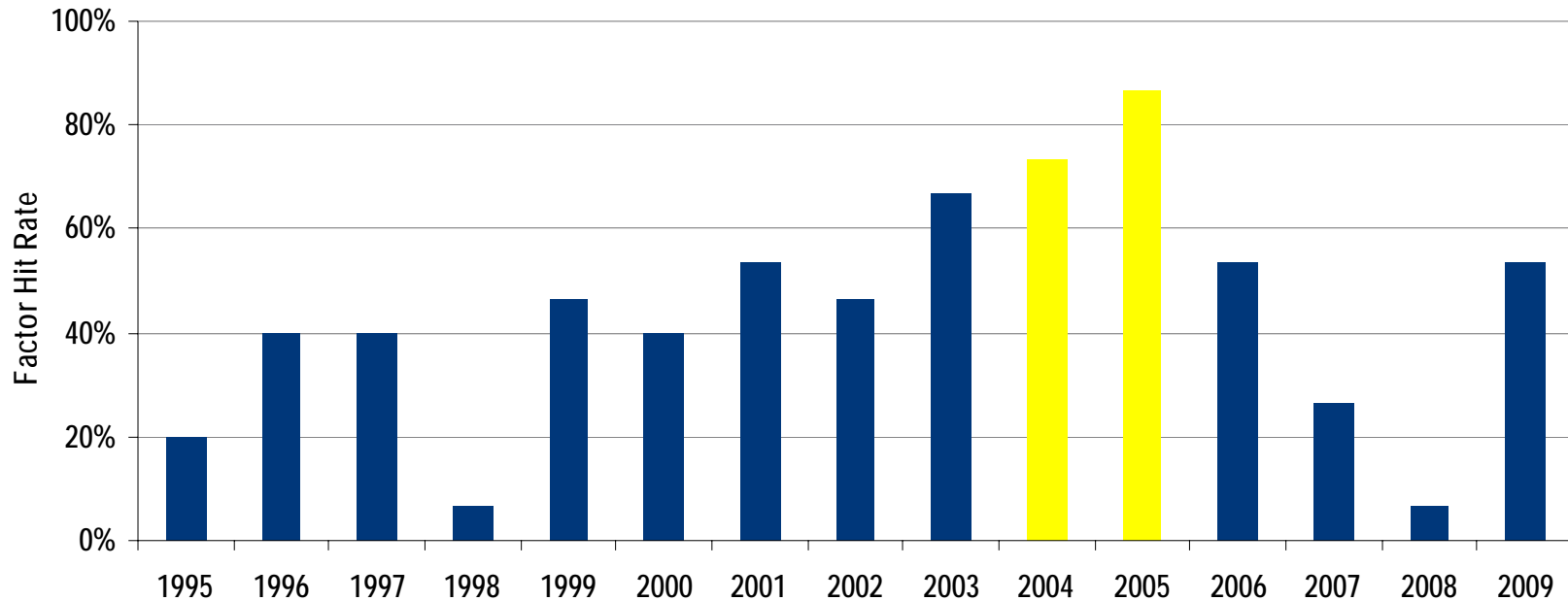
By factor returns,
2003 and 2009 are the
two most similar
years in the last decade
Both years saw:

- Profits growth rebound
- Steep, increasing revision ratios
- Falling volatility

Then 2010 -2011 = the golden age

Hit rate of quantitative stock selection strategies vs. benchmark

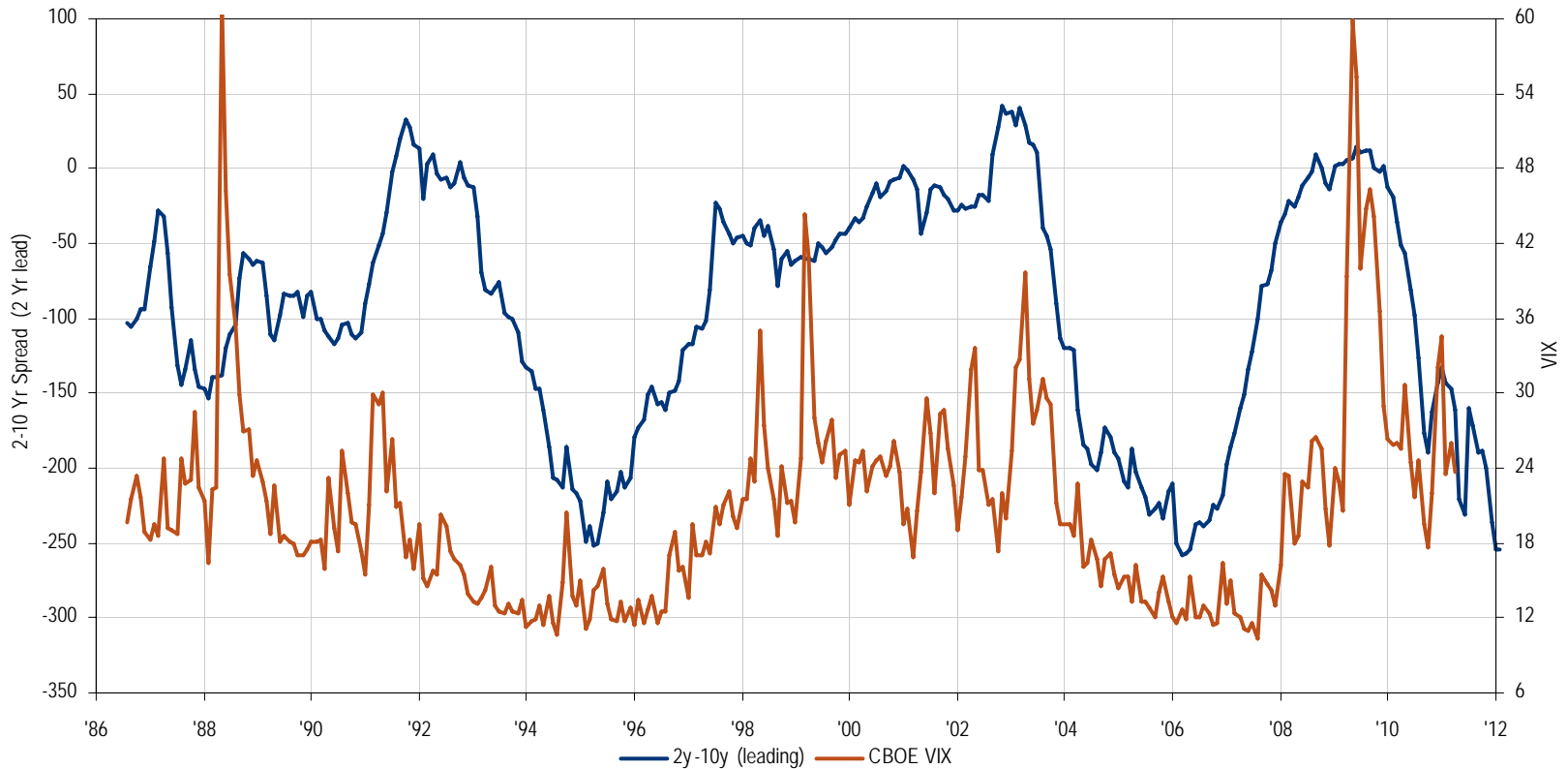
Based on 15 popular growth, value, momentum and quality strategies



VIX - bumpy decline

We expect a longer-term decline in volatility, some bumps along the way...

CBOE VIX and Inverted Slope of Yield Curve (January 1986 to September 2010)



Fear, greed and fundamentals

Three phases of the VIX and strategy returns (1986 to 2010)

	High Beta	High Quality	Value Growth Momentum
Fear: Trough to Peak	-14.3%	20.0%	3.7%
Greed: Peak to Midpoint	53.2%	-6.5%	2.6%
Fundamentals: Midpoint to Trough	7.4%	-12.5%	16.3%

Buy companies on fundamentals, hedge against macro risk and spikes in VIX with quality.

Source: BofA Merrill Lynch US Quantitative Strategy

What worked in 04-05?

Everything ... except beta

Strategy Returns from 2004 to 2005

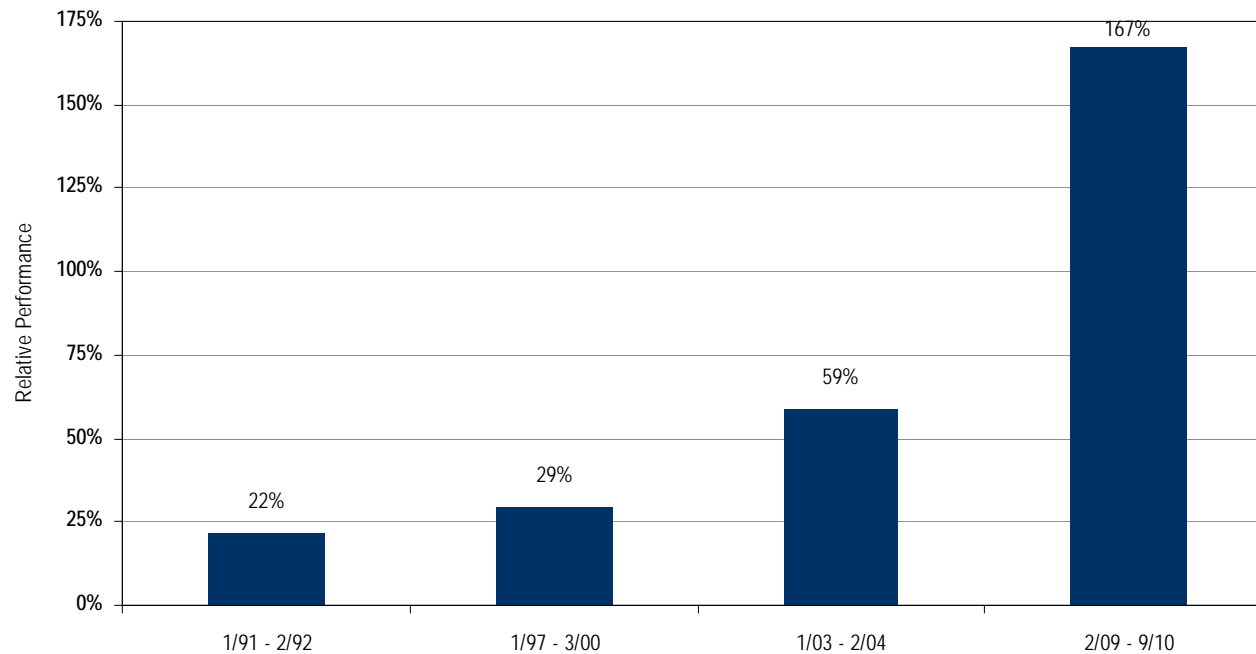
	Average Return			Style
	from 2004 to 2005	2004	2005	
Forward Earnings Yield	53%	31%	17%	Valuation
Relative Strength	50%	19%	26%	Price Momentum
Estimate Revisions	48%	21%	22%	Growth
Trailing Earnings Yield	46%	26%	16%	Valuation
EPS Momentum	42%	22%	16%	Growth
Price to Free Cash Flow	40%	26%	11%	Valuation
Price to Cash Flow	39%	23%	13%	Valuation
Price to Book	35%	26%	7%	Valuation
Long Equity Duration	34%	19%	13%	Growth
EPS Variability	33%	17%	14%	Cyclical Growth
Dividend Discount Model	24%	17%	6%	Valuation
Price to Sales	24%	24%	0%	Valuation
Alpha Surprise	24%	19%	4%	GARP
SP500 Equal-Weighted	23%	16%	6%	Benchmark
Long-term Growth	16%	6%	9%	Growth
S&P 500	12%	9%	3%	Benchmark
High Beta	-6%	0%	-6%	Risk

Source: BofA Merrill Lynch US Quantitative Strategy

Beta has dramatically outperformed

High beta relative performance in previous cycles and today

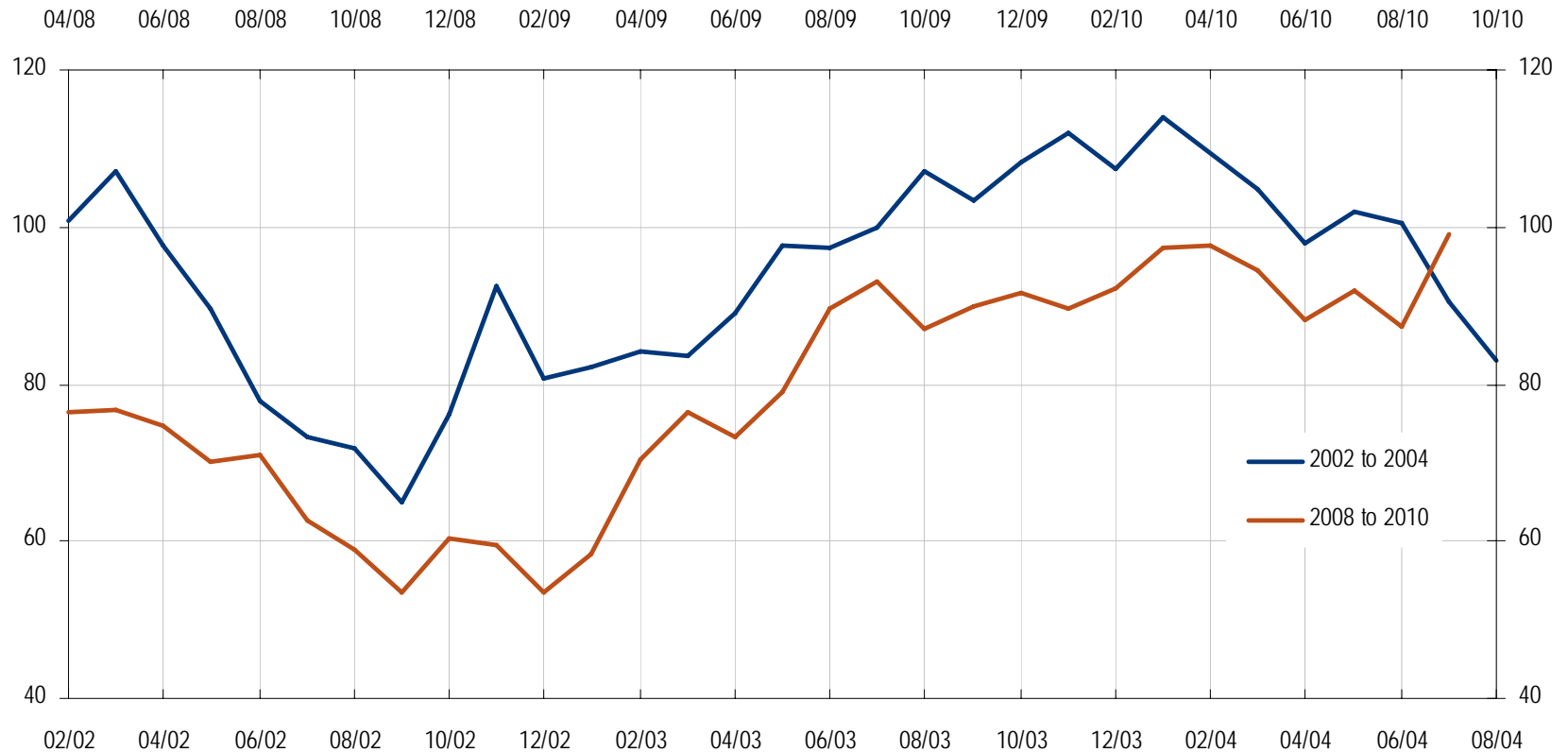
S&P 500 Top 50 by Beta vs. Index



Is beta ending?

Same story as 04 ... until September

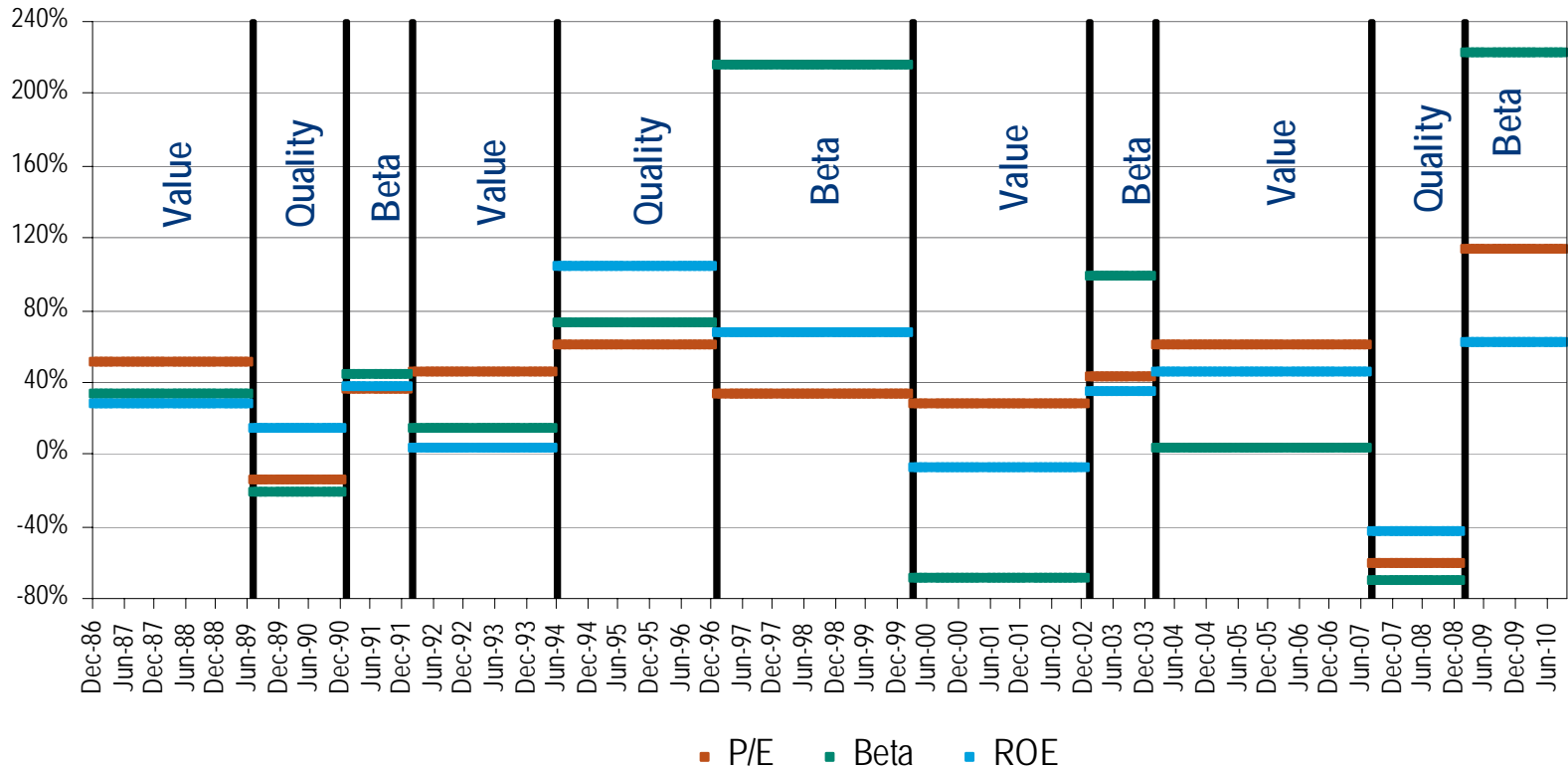
Relative performance of High Beta in 2002-2004 versus 2008 to now



After beta, it's value

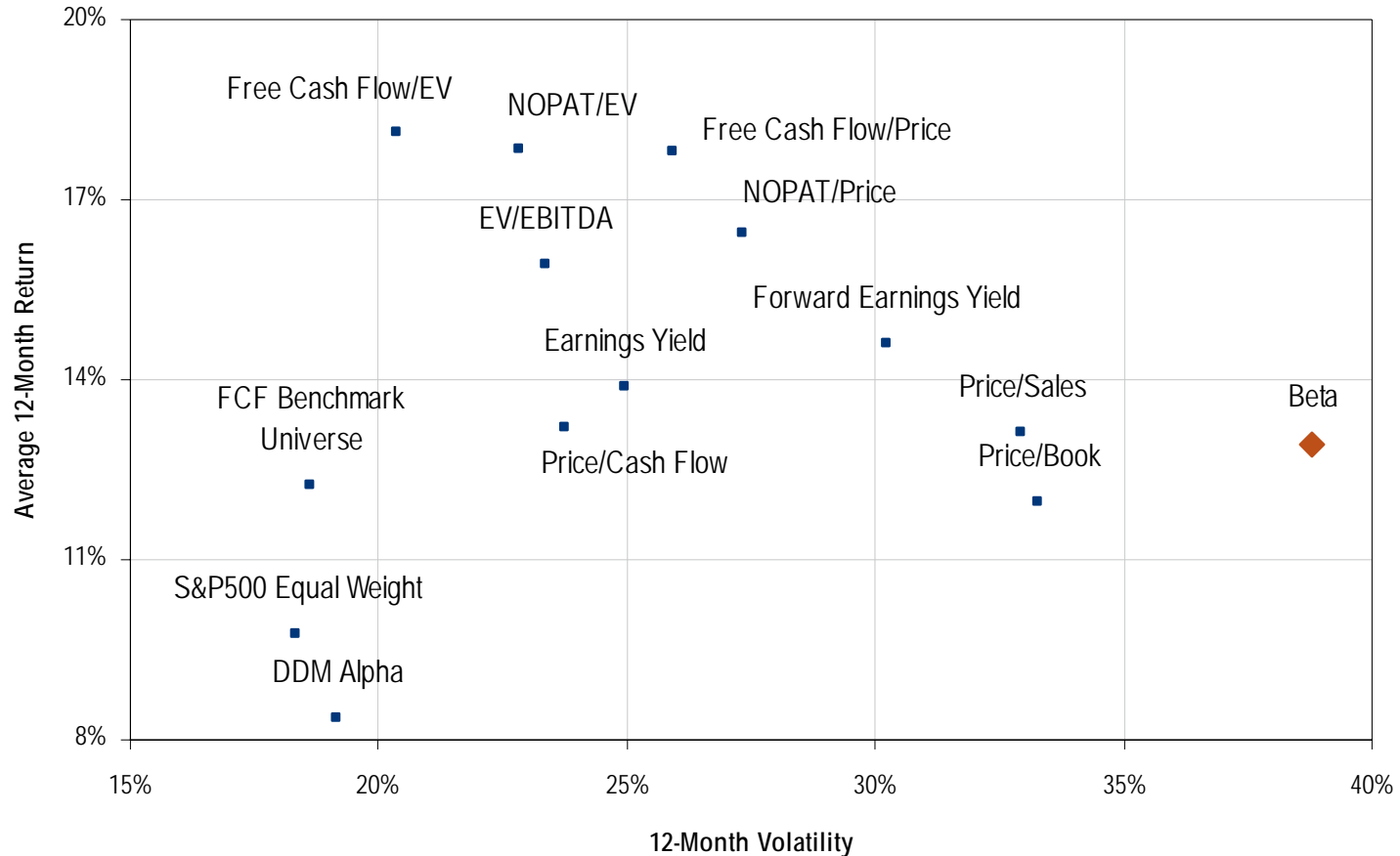
Over the last 23 years, every beta rally has been followed by a period where valuation leads the market

Best performing strategy (top decile SP500) as of September 2010



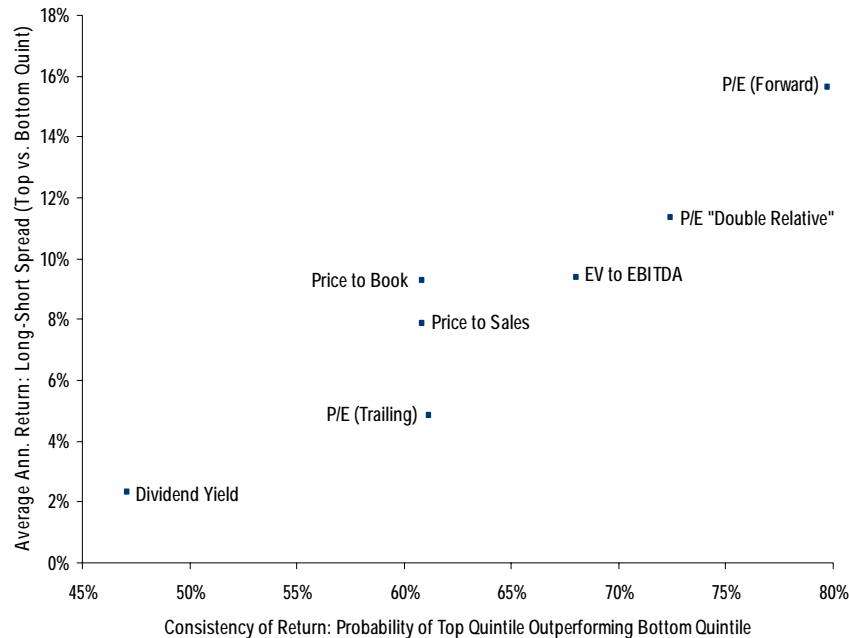
Risk-reward: valuation over beta

Valuation: a safer bet - Most valuation strategies offer higher return and lower risk than a strategy of buying beta (1986 to August 2010)



Sector-specific valuation measures

Long-short valuation strategies' Avg Spread vs. Consistency of Spreads (1986 to 2010)



Source: BofA Merrill Lynch US Quantitative Strategy

Valuation works differently by industry:

Group	Most Predictive Long-Short Valuation Measure
Consumer Discretionary	
Media	Price to Free Cash Flow, Price to Sales, EV/EBITDA
Retailing	Price to Free Cash Flow
Other Discretionary (Autos, Durables, Services)	Fwd P/E, EV/EBITDA
Consumer Staples	EV/EBITDA, Fwd P/E
Energy	Price to Book
Financials	
Banks	Double Relative P/E
Insurance	P/E (Fwd)
Other Financials (REITs, Diversified)	Fwd P/E, Trail P/E, EV/EBITDA
Health Care	
Health Care Equipment & Services	Price to Free Cash Flow
Pharma, Biotech + Life sci	Price to Free Cash Flow, Price to Book, Price to Sales
Industrials	
Capital Goods	P/E (Trailing), EV/EBITDA, Price to Sales
Other Industrials (Services, Transports)	EV/EBITDA, Double Relative P/E
Technology	Price to Free Cash Flow, Price to Sales, EV/EBITDA
Materials	EV/EBITDA
Telecommunication Services	Dividend Yield
Utilities	Price to Sales, EV/EBITDA

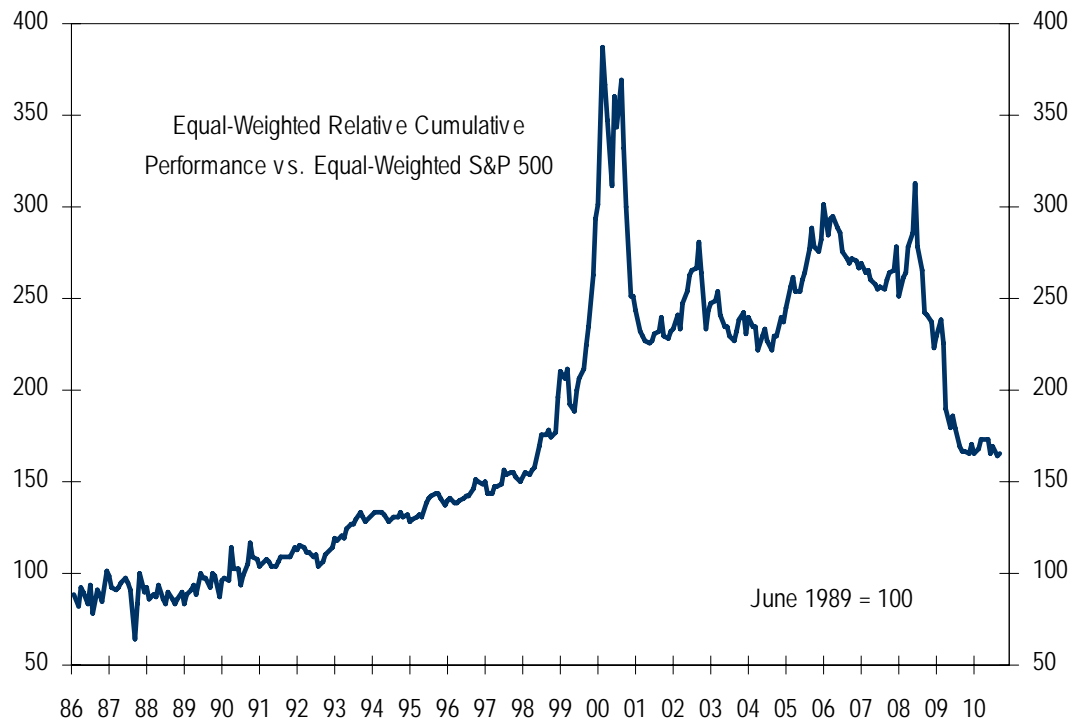
Price Momentum

This slide intentionally left blank

Momentum: started to work...

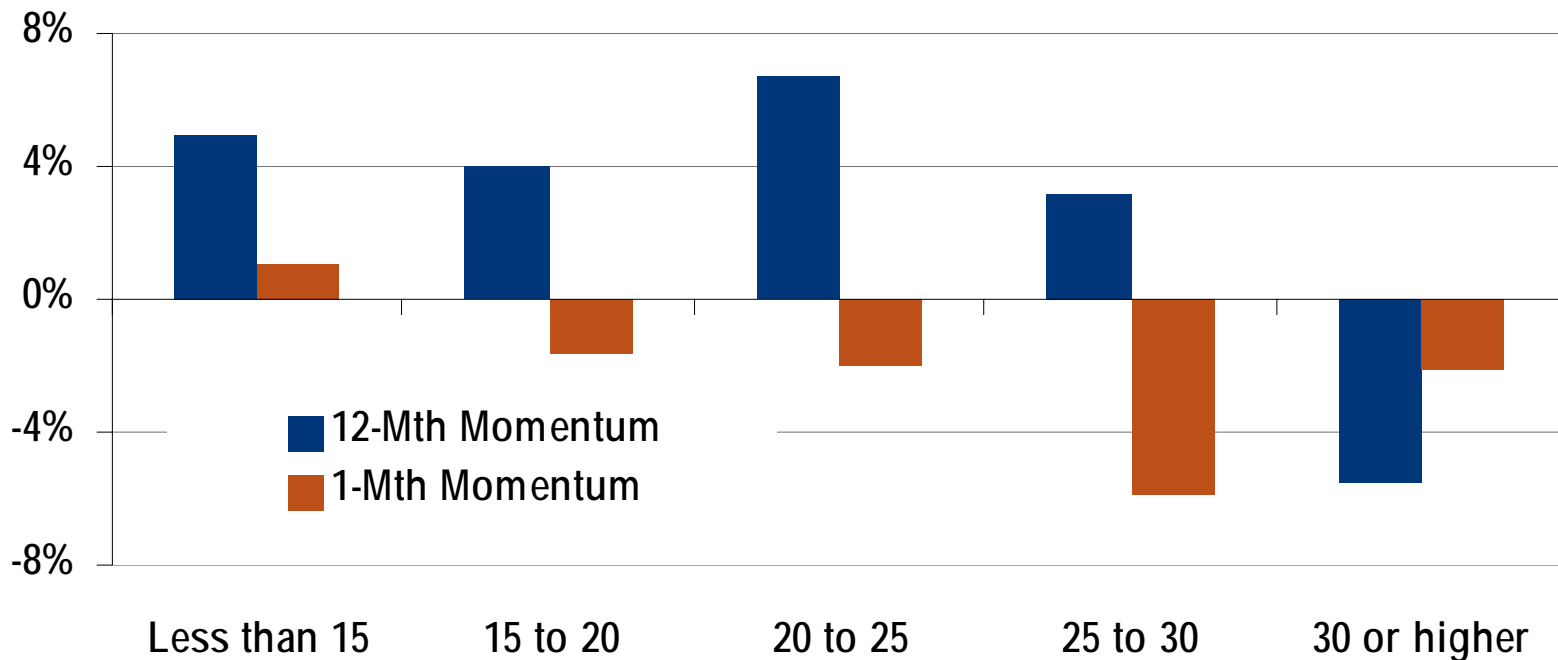
..but volatility came back.

Relative Strength (Top Decile) Performance



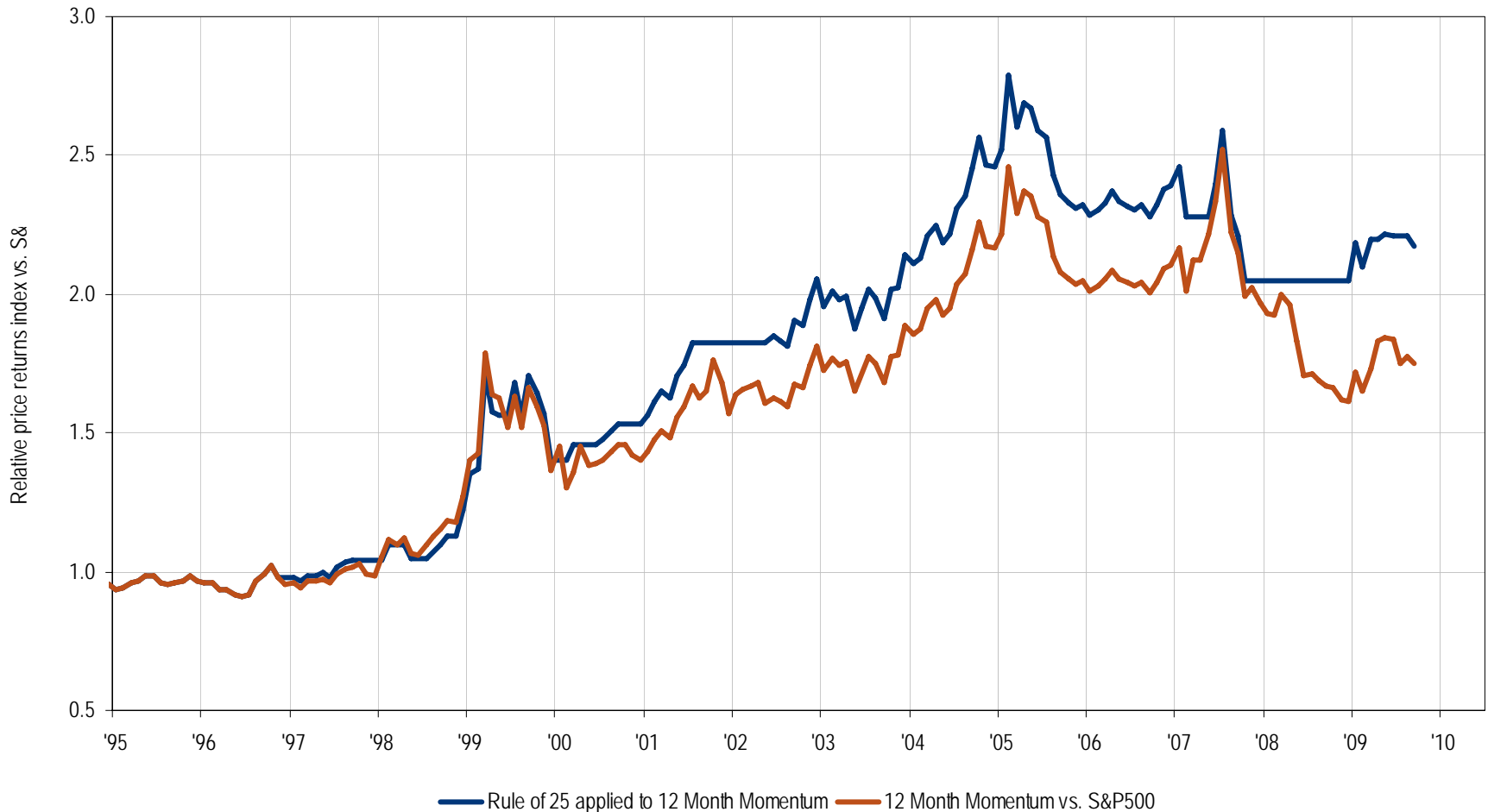
Momentum and the Rule of 25

- Rule of 25: Don't use price momentum unless the VIX is below 25 - volatility signals a change in leadership.
- Long-term and short-term momentum relative performance and VIX (Rolling 12-Month)



Performance of Rule of 25 strategy

Rule of 25 applied to 12-Month Price Momentum as of 9/30/2010



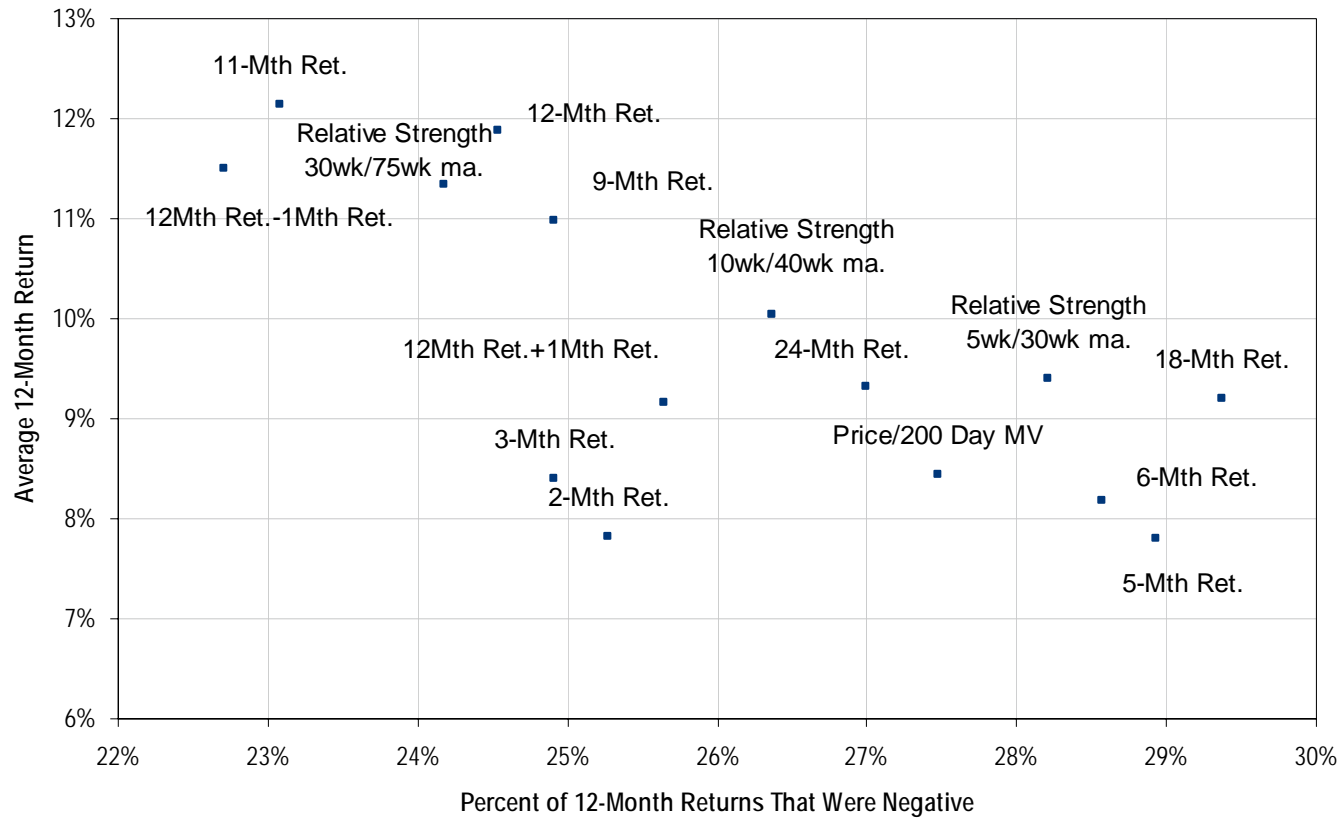
Momentum & Rule of 25

Momentum Factor Performance and the VIX (shading indicates outperformance)
S&P 500 top decile price momentum by different time horizons

	Low Volatility	<----->			High Volatility	Average Excess Return
	Less than 15	15 to 20	20 to 25	25 to 30	30 or higher	
R12M	16%	21%	15%	2%	-27%	4%
30w/75w	17%	18%	14%	4%	-28%	4%
R9M	15%	19%	16%	-1%	-27%	3%
10w/40w	14%	18%	14%	2%	-28%	2%
5w/30w	14%	16%	14%	-1%	-28%	2%
R24M	16%	20%	8%	-3%	-27%	2%
R18M	15%	19%	11%	-1%	-29%	2%
R3M	13%	16%	12%	-4%	-21%	1%
R6M	12%	16%	13%	-2%	-29%	1%
R1M	12%	15%	7%	-7%	-23%	-2%
S&P 500	11%	17%	9%	-1%	-21%	

Long-term is better

Reward to Downside Risk Characteristics of Momentum Factors 1986 to 2009, Top Decile Strategies for S&P 500



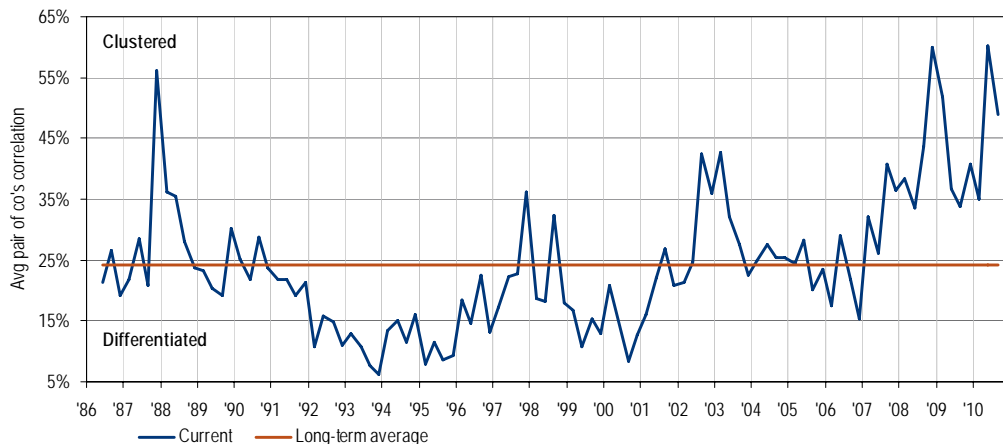
This slide intentionally left blank

Macro Market

This slide intentionally left blank

Macro market persists

Pair-wise correlations of all S&P 500 stock combinations, daily returns per quarter



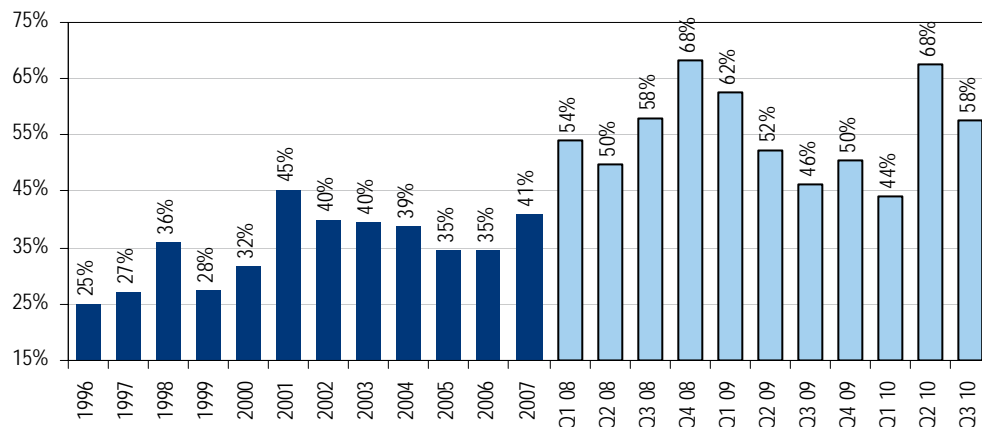
Macro Market

Stock performance within groups is clustered, as macroeconomic news tends to affect the entire group the same way.

Stock Pickers Market

Stock performance within groups is differentiated, as stocks perform according to fundamentals and company specifics.

Pair-wise correlations within industry groups (daily returns per quarter, monthly per year)

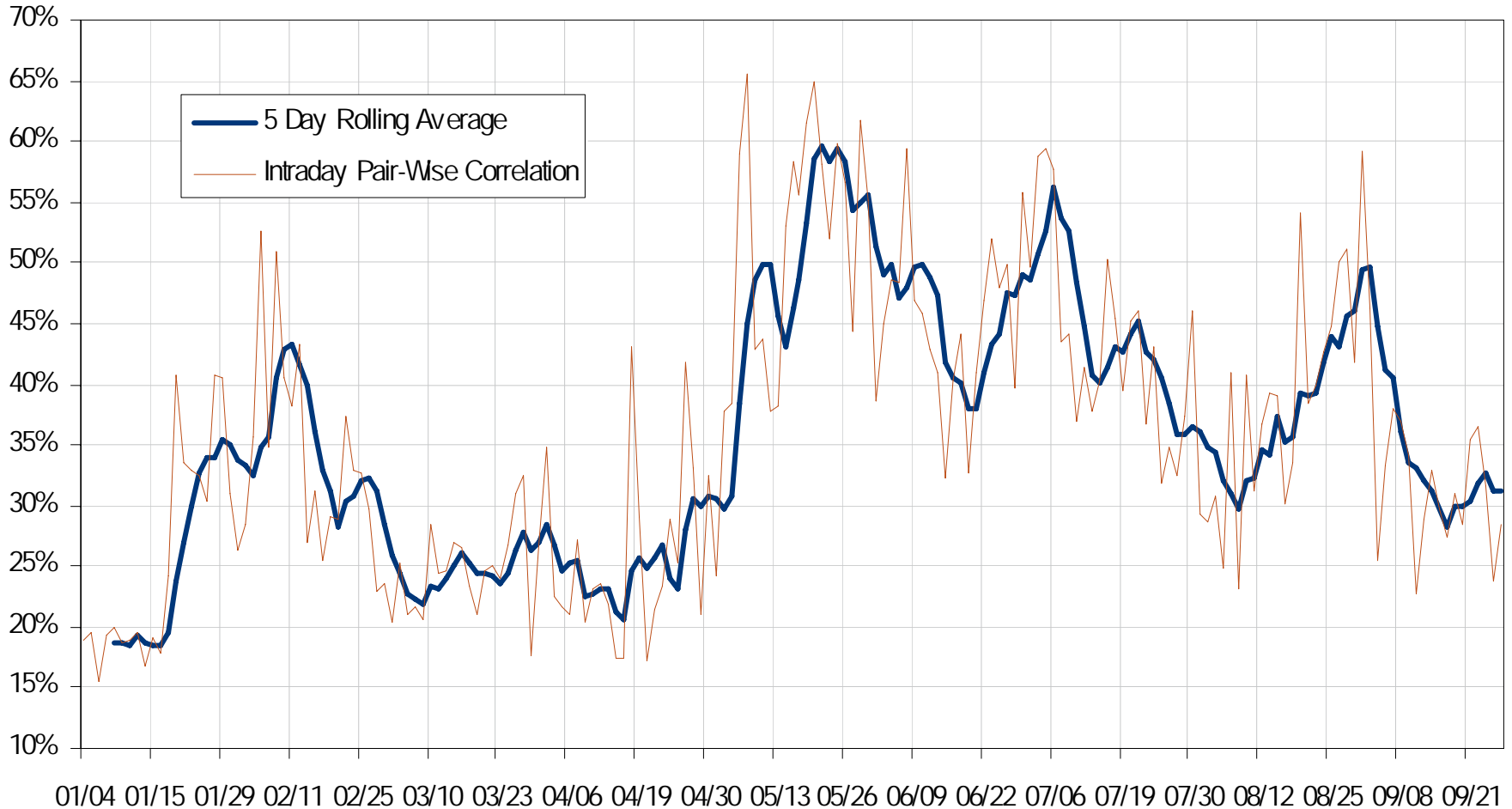


Industries perform differently, as economic news that benefits one group hurts another.

Industries perform similarly, and within groups there are winners and losers.

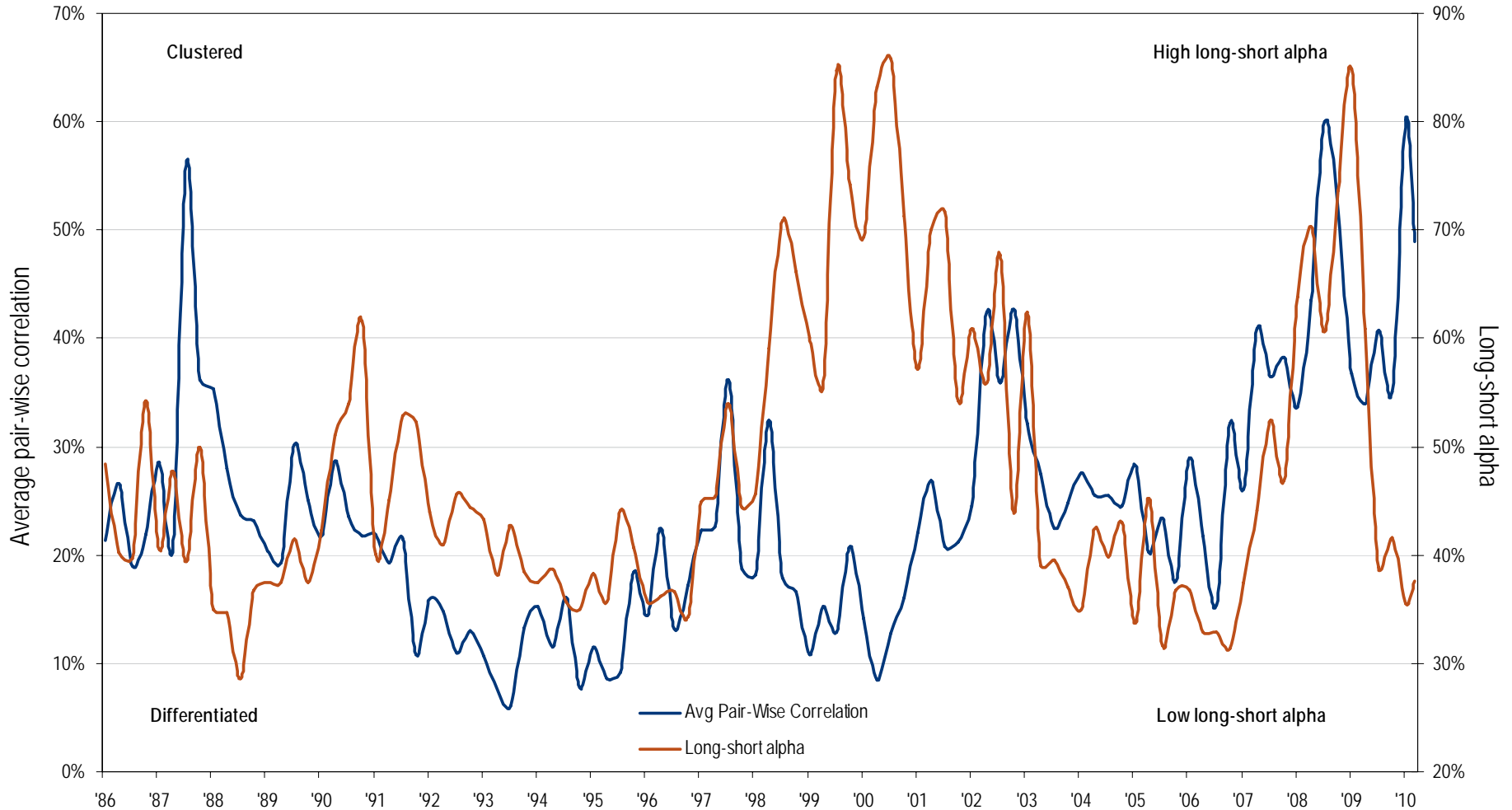
Clustering improved recently

Average intraday pair-wise correlation of S&P 500 stocks (5 trading day MA)



Long-short alpha is scarce, correlations are high

Based on S&P 500 historical and current constituents, 1986 to 2010



This slide intentionally left blank

Active Manager Trends

This slide intentionally left blank

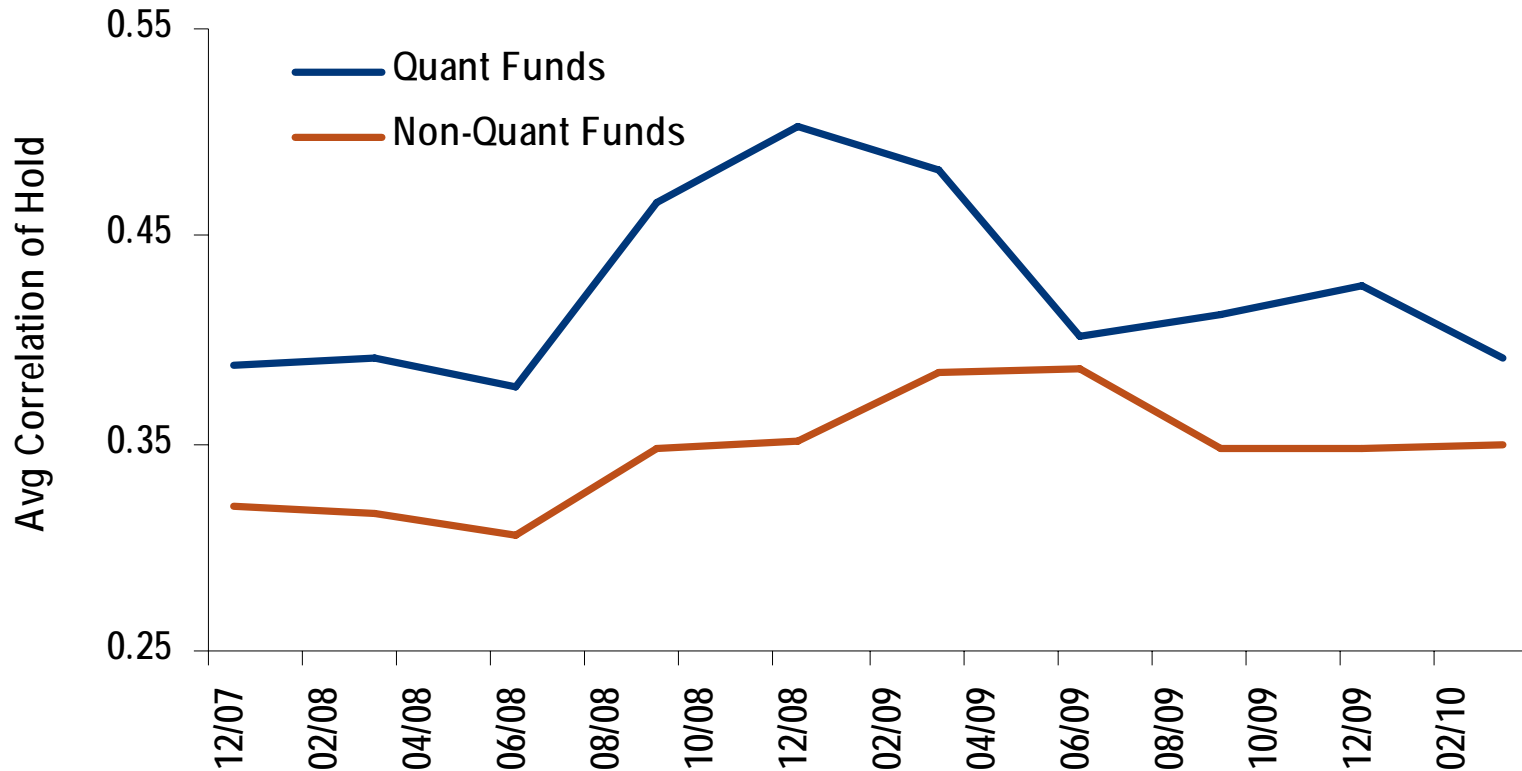
What are your neighbors doing?

Sector exposure today vs. Q1 2010



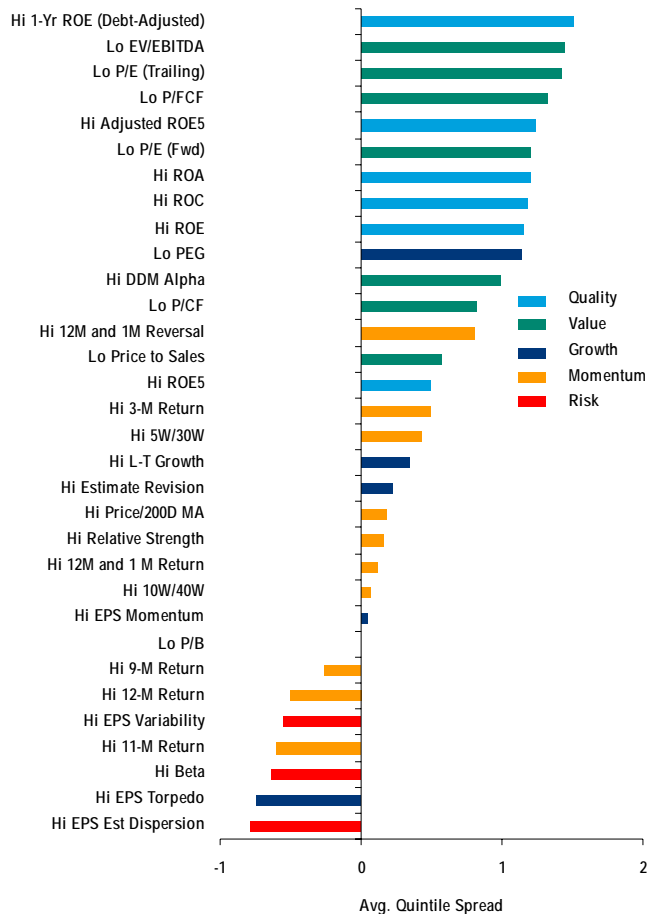
Quant funds getting less correlated

Holdings similarity - average correlation of stock weights
(high-more similar)



Quants tilted to quality and value

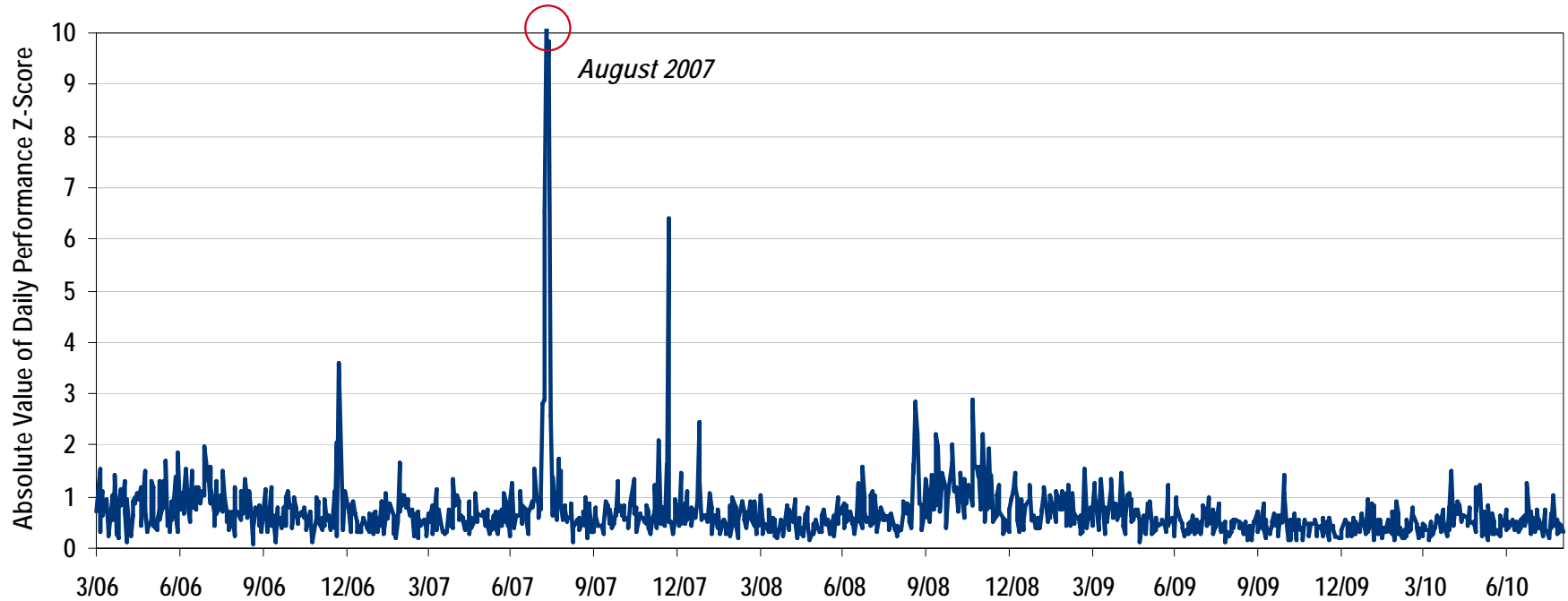
Most Overweighted vs. Underweighted Attributes



- Using most overweighted and underweighted stocks in quant funds:
- Strong factor exposures are Quality, Value, and Low Risk.
- The most popular Price Momentum measure is a 12m/1m reversal strategy.
- EPS Estimate Revisions did not show up as a popular factor.

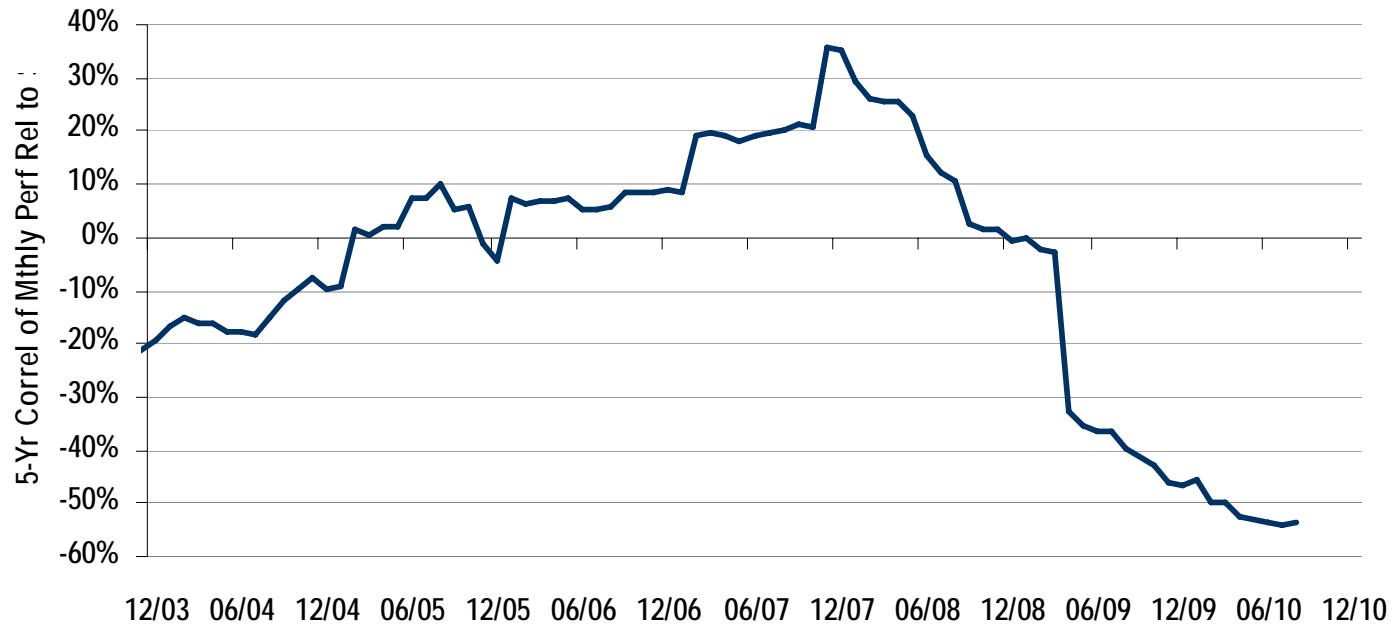
Quant meltdown barometer

Z-Scored daily performance of a basket long-short equity funds (2004 to August 2010)



Factors diversification

Rolling 5-Year Correlation between Relative Performance of Estimate Revision and Price to Cash Flow



This slide intentionally left blank

Sector and Industry Rotation

This slide intentionally left blank

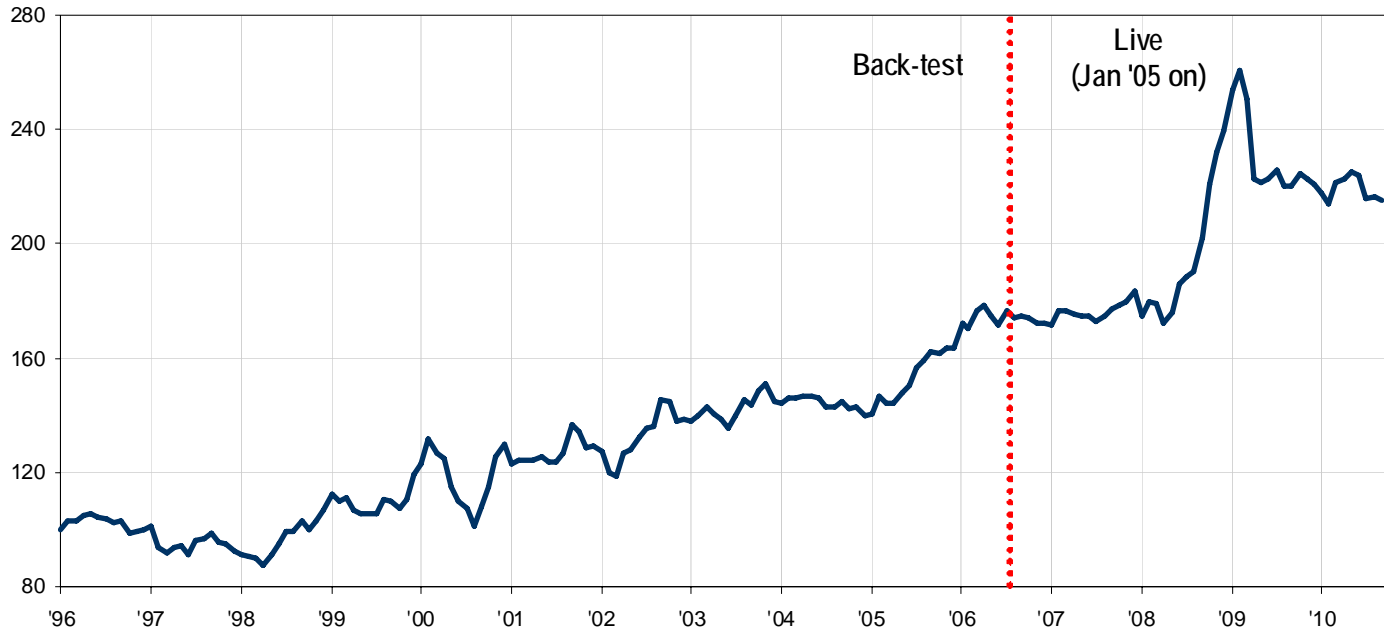
Current Sector Ranks 9/30/10

	Combined Rank	Price Momentum Rank	EPS Revision Rank	Valuation Rank
Technology	6.7	6	6	9
Consumer Staples	6.6	6	7	7
Consumer Discretionary	6.3	6	7	6
Energy	5.5	7	4	6
Telecom	5.2	9	4	3
Materials	5.2	7	4	5
Financials	5.0	4	6	5
Health Care	5.0	3	4	8
Industrials	5.0	7	5	4
Utilities	4.2	4	4	4

Sector & Industry Rotation Model

- Sector rotation model: three factor based model
 - Relative Price Momentum
 - Relative Estimate Revisions
 - “Double-relative” valuation

Relative performance of Industry Model vs. Eq-Wtd SP500 Industries

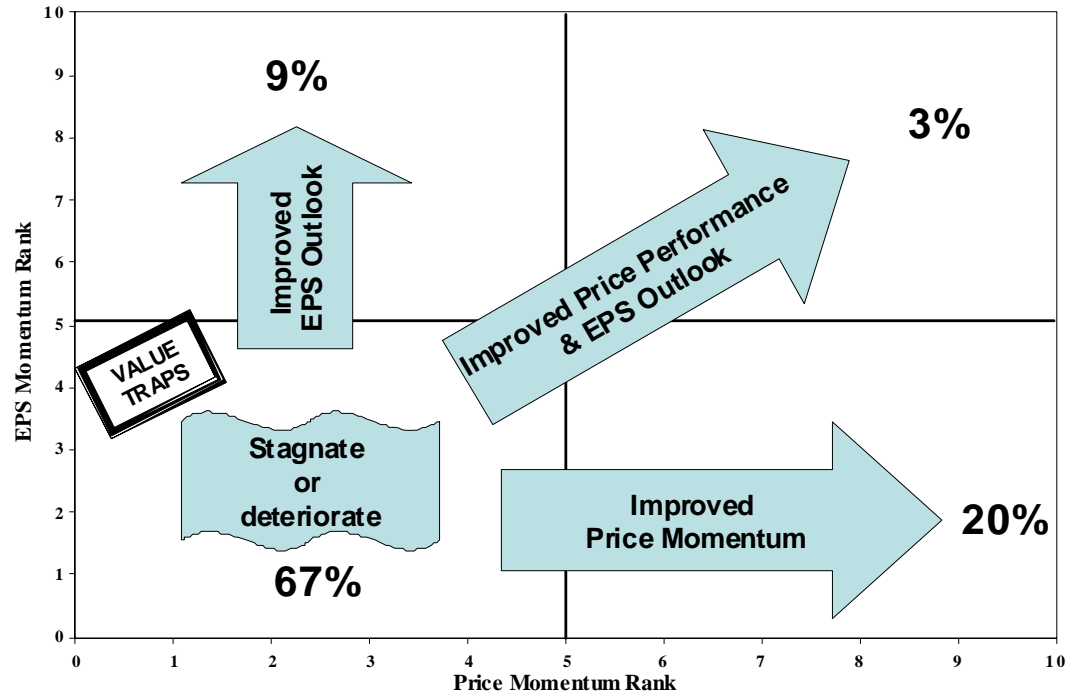


Value Trap Industries

Current Value Trap industries:

- Health Care Equipment & Supplies
- Health Care Providers & Services
- Household Products
- Insurance
- Pharmaceuticals
- Semiconductors & Semi Eqpt

Value Trap industry migration



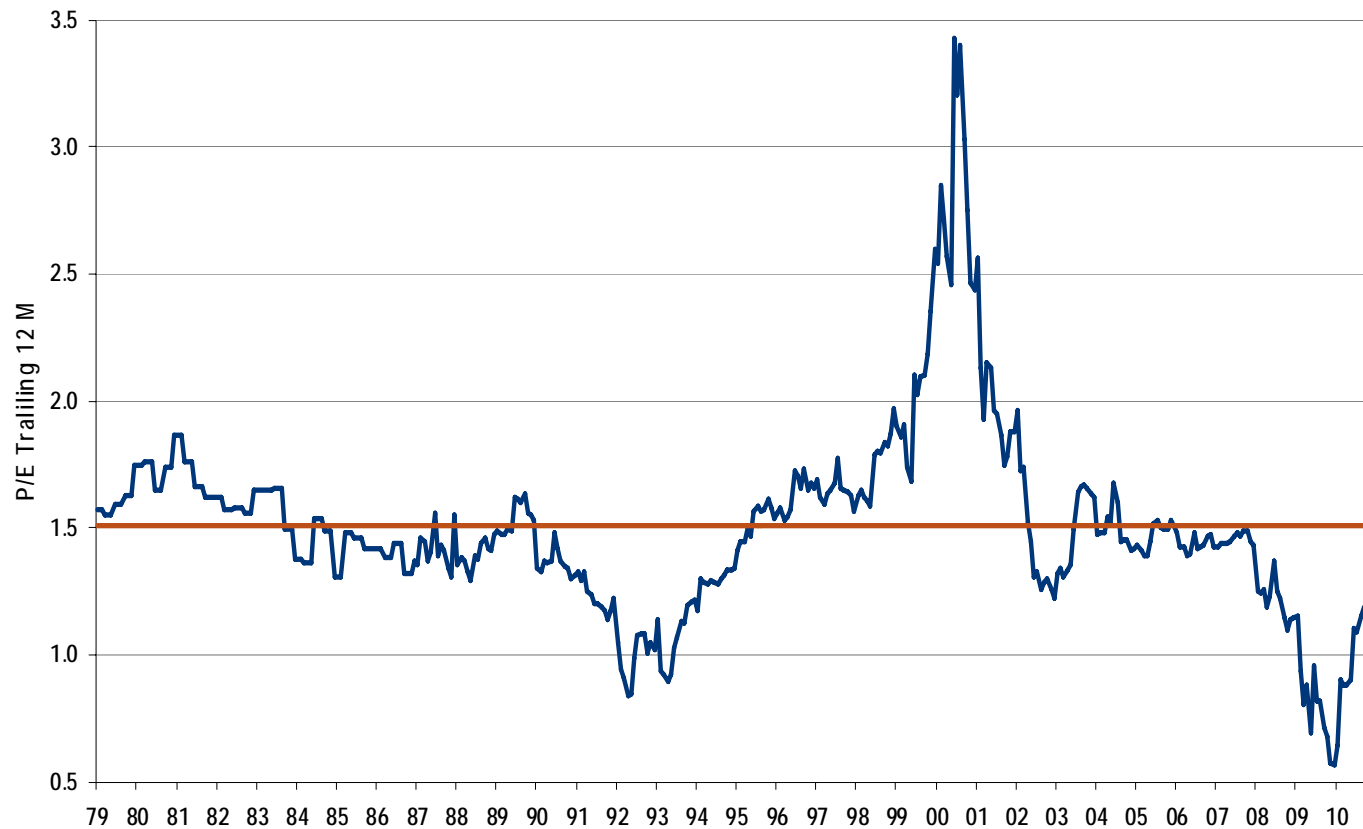
This slide intentionally left blank

Benchmark Fundamentals

This slide intentionally left blank

Growth is *cheaper* than value on P/E

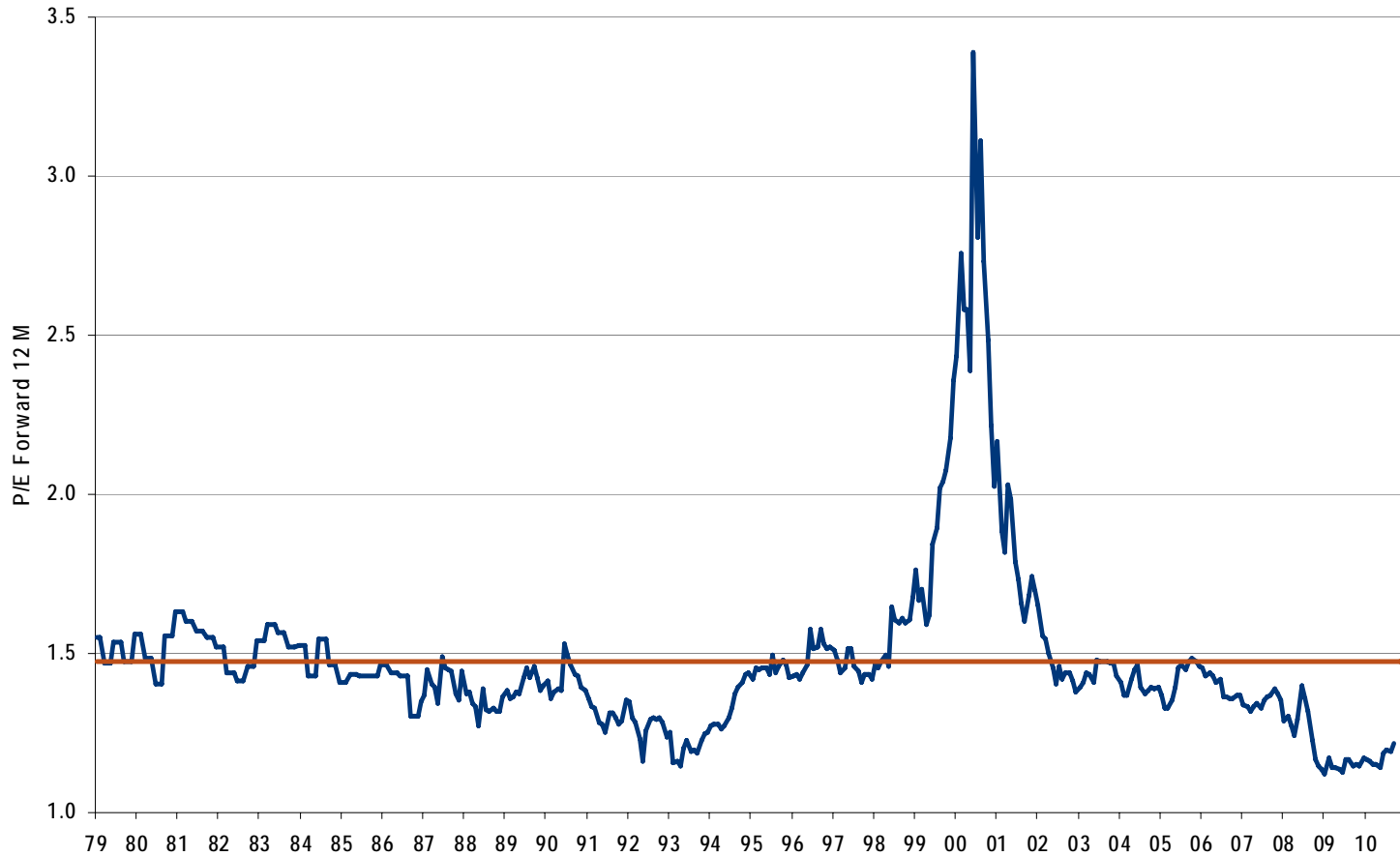
Russell 1000 Growth vs. Value Trailing 12-Mth P/E (1978 - 2010)



Source: Russel Indices, BofA Merrill Lynch US Quantitative Strategy

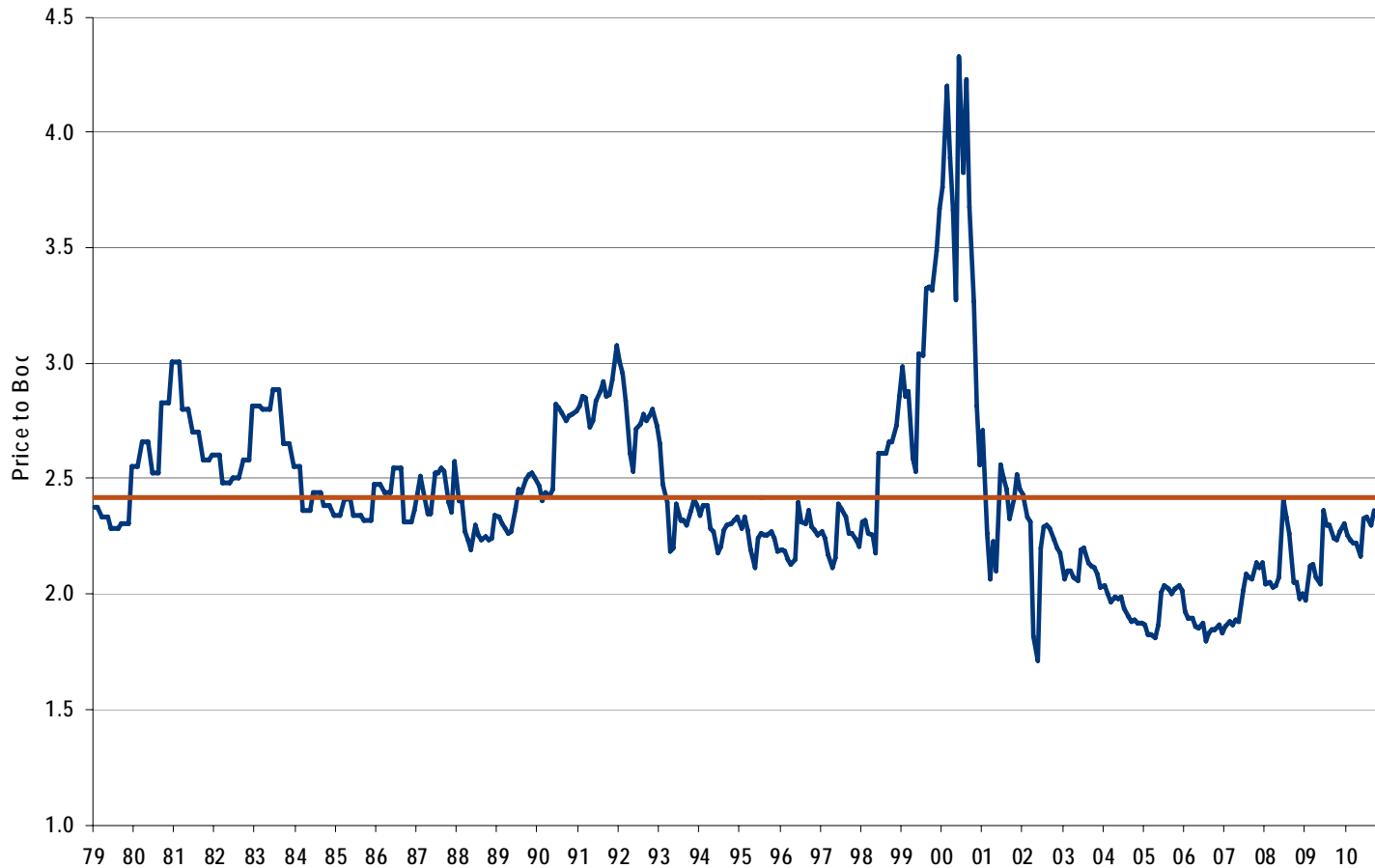
Growth has a lower than average premium valuation on forward earnings

Russell 1000 Growth vs. Value Forward 12-Mth P/E (1978 - 2010)



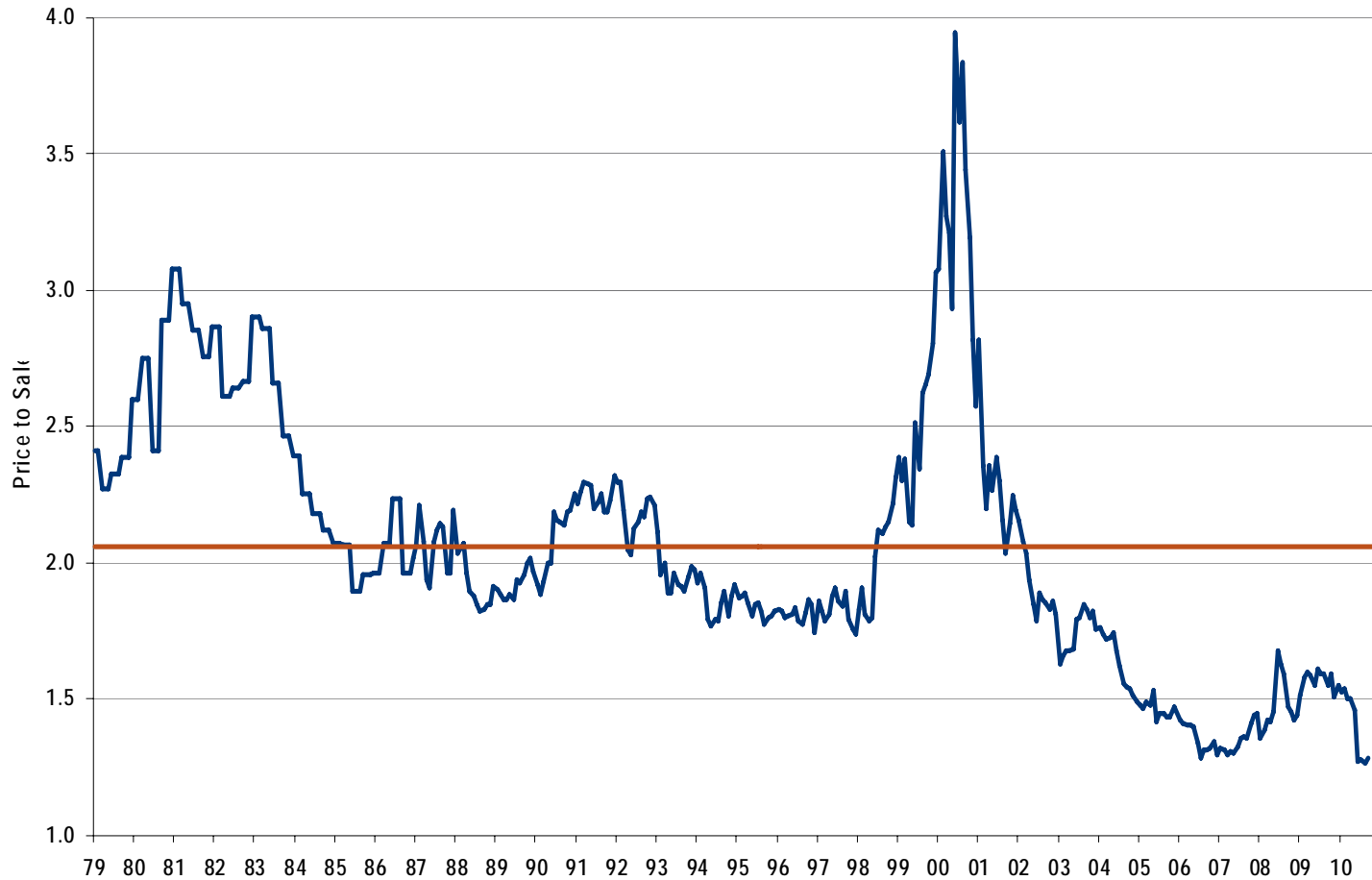
Growth has a lower than average premium valuation on book value

Russell 1000 Growth vs. Value Price to Book (1978 - 2010)



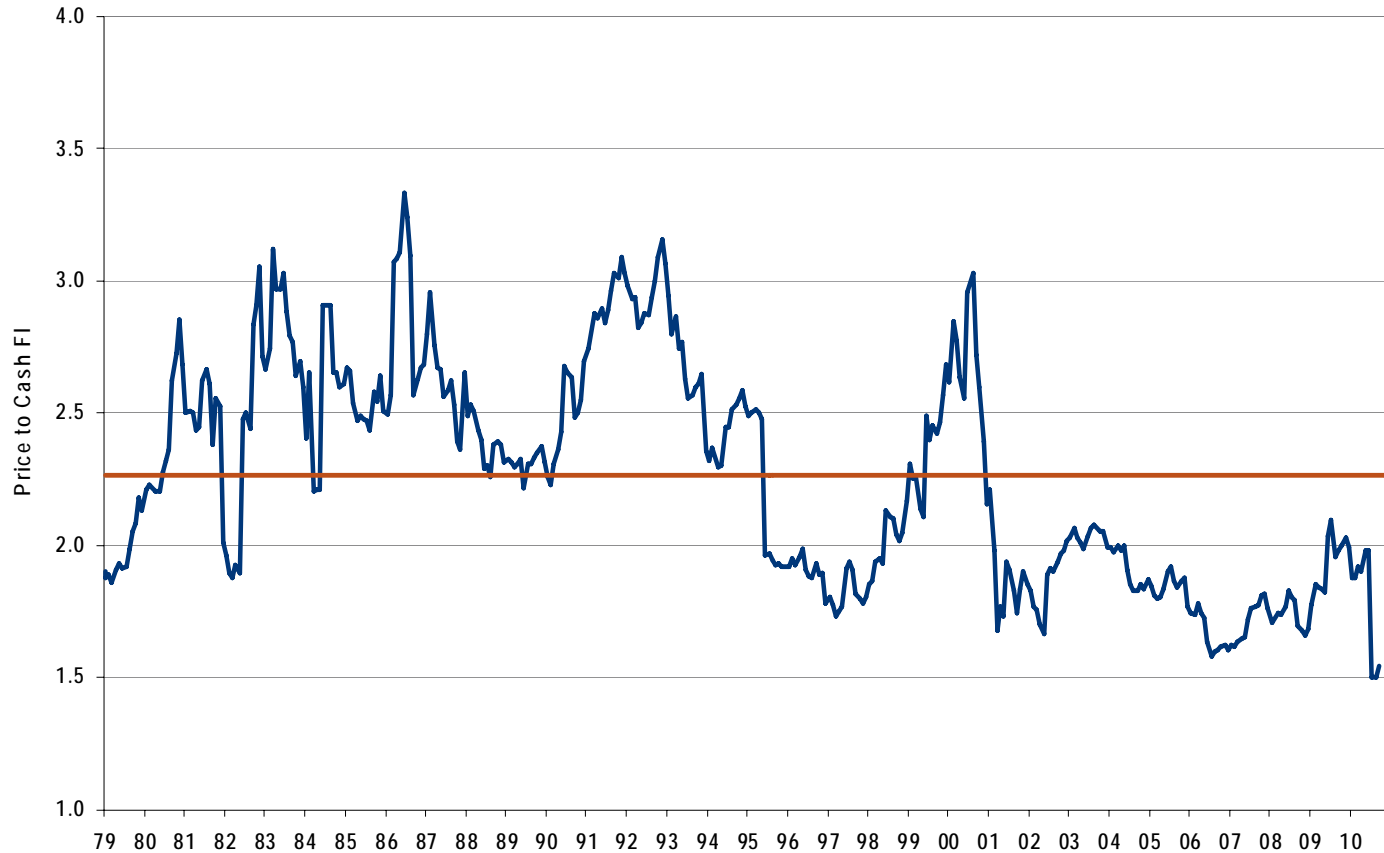
Growth has a lower than average premium valuation on sales

Russell 1000 Growth vs. Value Price to Sales (1978 - 2010)



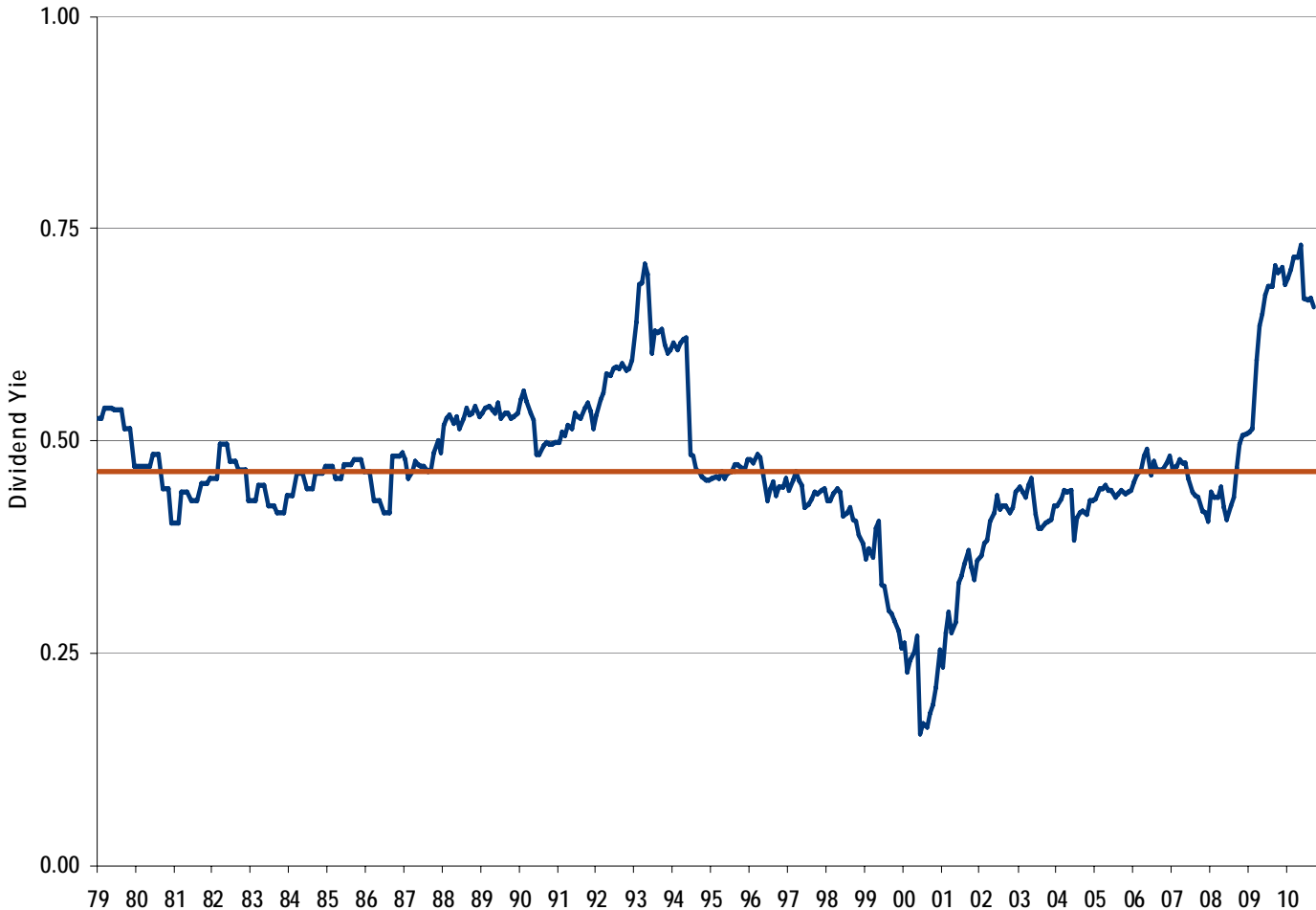
Growth has a lower than average premium valuation on cash flow

Russell 1000 Growth vs. Value Price to Cash Flow (1978 - 2010)



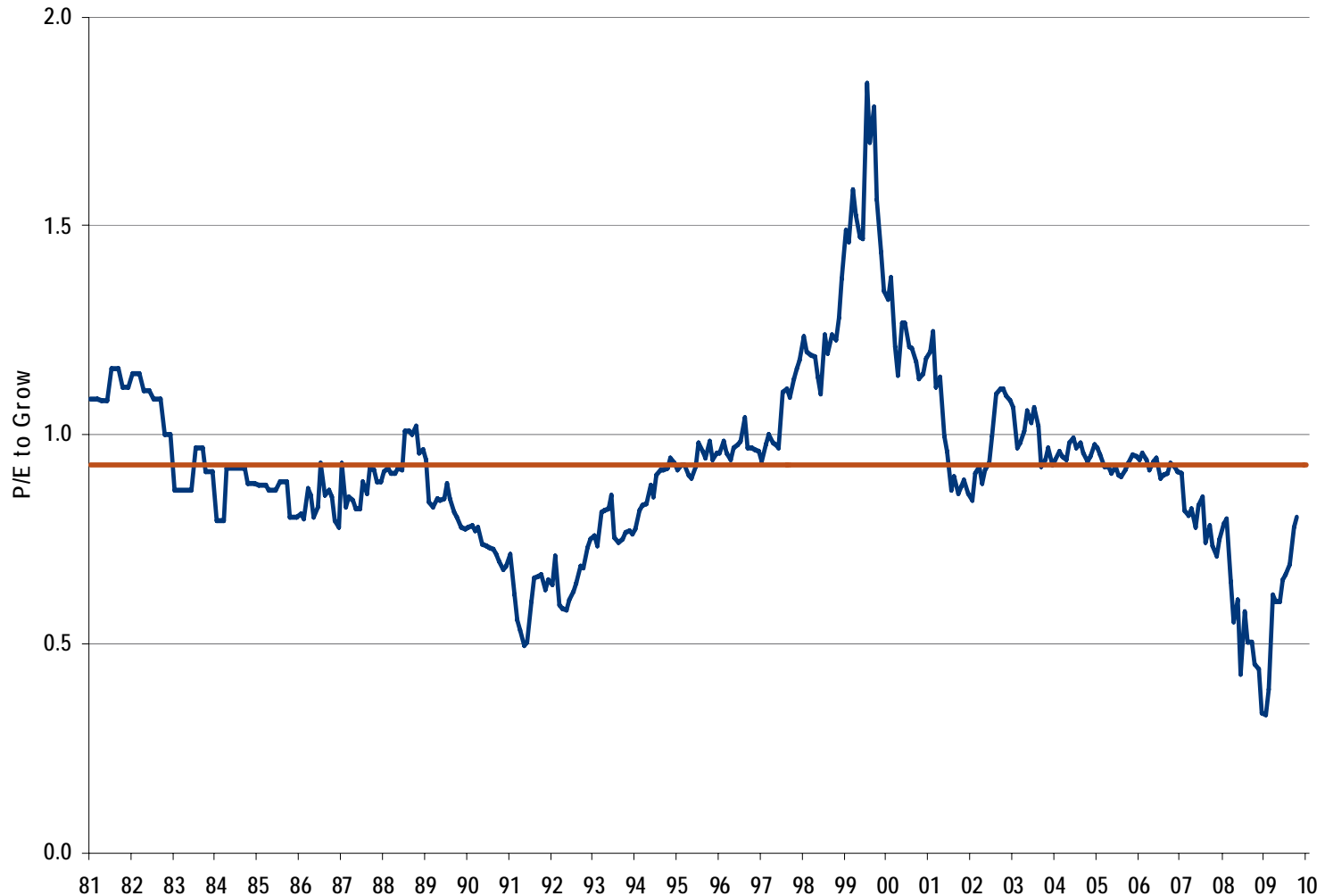
Growth has significantly higher dividend yield

Russell 1000 Growth vs. Value Dividend Yield (1978 - 2010)



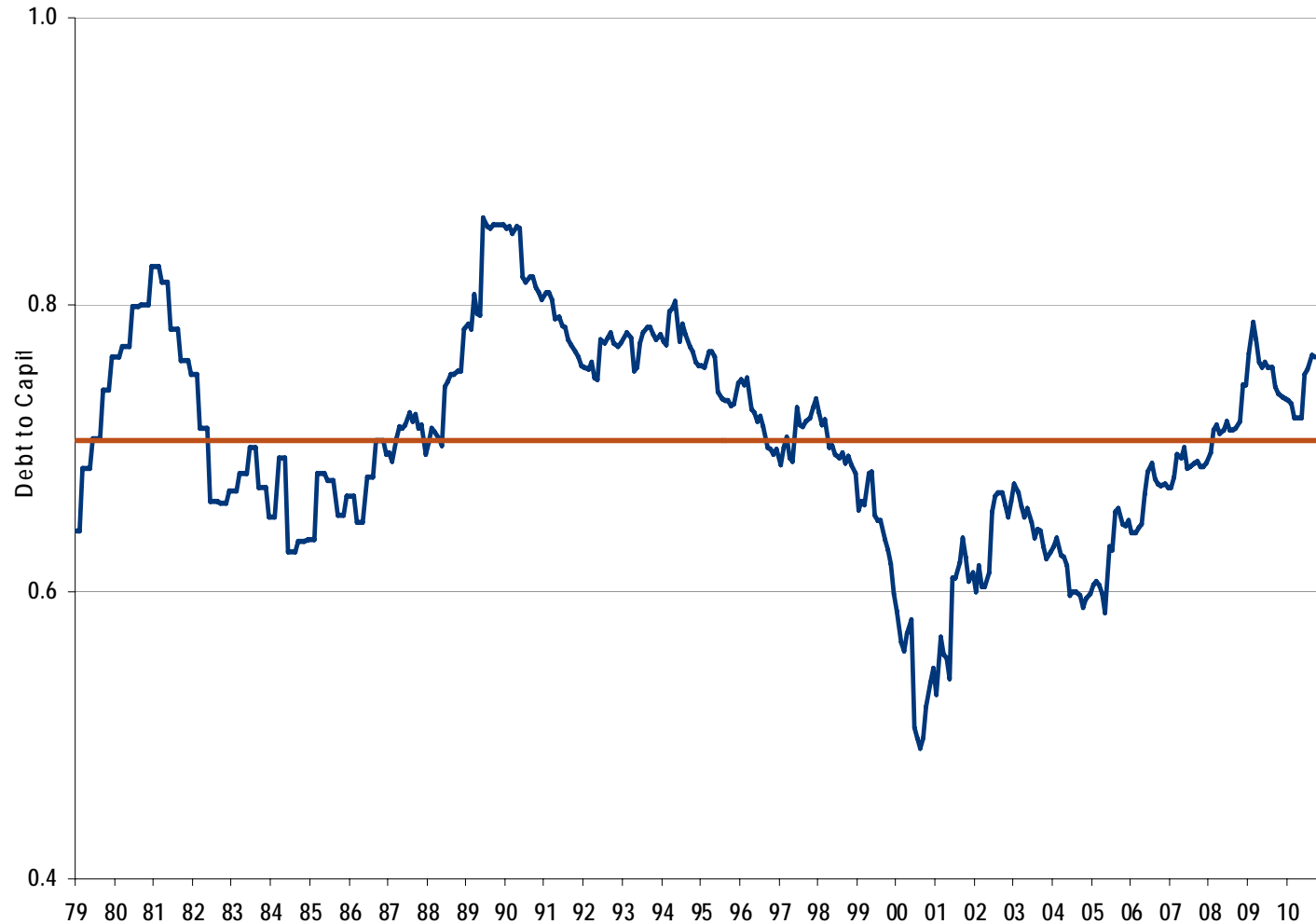
Growth is more attractive on PEG

Russell 1000 Growth vs. Value P/E to Growth (1982 - 2010)



Growth and value leverage ratios are in line with history

Russell 1000 Growth vs. Value Debt to Capital (1978 - 2010)



Appendix

This slide intentionally left blank

Stock selection factors

Factor Timing

Factor	When to use it....
Beta	Accelerating profits, declining volatility
Dividend Discount Model	Decelerating profits, rising volatility
Dividend Growth	Negative equity returns, rising volatility
Dividend Yield	Negative equity returns, rising volatility (Note that second quintile does better than top quintile)
Earnings Momentum	Accelerating profits, declining volatility, declining dispersion of estimates
Earnings Yield	Accelerating profits, declining volatility
Equity Duration	ERP falling, Growth expectations rising
Estimate Dispersion	Estimate Dispersion falling
EVEBITDA	Accelerating profits, declining volatility
Foreign Exposure	Dollar weakening
Forward Earnings Yield	Accelerating profits, declining volatility
High Quality	Decelerating profits, rising volatility
High Variability of Earnings	Accelerating profits, declining volatility
Low Quality	Accelerating profits, declining volatility
Most Active	Inflection points in VIX (peaks or troughs)
Neglect-Analyst Coverage	Low volatility, large inflows into equities
Neglect-Institutional Ownership	Negative equity returns (i.e., broad institutional sell-off)
P/E to Growth	Generally good in most environments
Positive Earnings Surprise	Low dispersion of estimates
Low Price	Accelerating profits, declining volatility, declining dispersion of estimates
Price Momentum	VIX < 25
Price/Book	Accelerating profits, declining volatility, declining dispersion of estimates
Price/Cash Flow	Accelerating profits, declining volatility
Price/Free Cash Flow	Accelerating profits, declining volatility
Price/Sales	Accelerating profits, declining volatility
Projected Five-Year EPS Growth	Decelerating profits, rising volatility
Return on Assets	Decelerating profits, rising volatility
Return on Capital	Decelerating profits, rising volatility
Return on Equity	Decelerating profits, rising volatility
Share Repurchase	Low cash on balance sheets, works better for companies with low valuation
Small Size	Accelerating profits, declining volatility, declining credit spreads, senior loan officer survey net easing
Upward Earnings Estimate Revision	Estimate Dispersion falling, low volatility, profits growth trending

Performance of proprietary models

Factor	10 YTD	'09	'08	'07	'06	'05	'04	'03	'02	'01	'00	'99	'98	'97	'96	'95	'94	'93	'92	'91	'90	'89	'88	'87	Rwd to Risk
Price/Book	17	78	-59	-33	19	7	26	57	-26	22	11	4	9	21	20	30	-1	20	24	51	-35	3	30	5	0.40
Price	13	110	-45	-15	18	-12	18	91	-42	38	1	15	13	28	19	11	2	18	24	57	-33	8	26	3	0.42
Small Size	13	118	-47	-13	17	-5	21	66	-7	25	-5	6	-2	31	17	22	-2	20	15	50	-32	3	27	1	0.43
Div Yld	13	18	-42	-15	22	1	16	23	-17	15	13	-8	11	20	9	23	-8	14	10	36	-24	18	11	-8	0.33
Price Return - 12M and 1M Reversal	13	14	-41	15	9	20	10	31	-22	-17	6	40	16	25	17	28	0	25	16	38	-1	24	6	-13	0.54
Earnings Torpedo	12	86	-46	-21	14	-1	15	31	-18	4	2	14	-2	34	16	22	-4	17	23	36	-24	8	10	-3	0.36
Neglect-Institutional Ownership	12	30	-39	-9	13	-1	17	35	-20	-7	2	12	17	23	10	30	1	17	6	24	-24	27	11	1	0.41
Dividend Growth	11	53	-46	2	10	11	19	32	-15	-9	13	4	14	24	22	32	-6	3	12	55	-10	24	18	-6	0.51
Negative Earnings Surprise	11	35	-40	-4	13	5	15	38	-22	-6	10	3	8	20	10	20	-5	9	5	34	-16	16	19	-4	0.39
Low Debt/Equity (1)	11	52	-41	2	11	5	13	60	-29	-19	-10	49	26	26	18	24	3	0	12	39	-2	18	9	5	0.48
Relative Strength -10W/40W	10	16	-49	20	9	14	21	51	-24	-15	22	58	27	36	17	29	1	17	-6	32	-20	27	5	14	0.54
P/E to Growth	10	61	-50	-7	14	16	29	64	-25	33	13	6	1	22	23	41	10	14	20	36	-8	15	21	17	0.65
EV/EBITDA	9	71	-49	3	16	19	27	42	-6	44	4	16	9	34	17	19	6	21	20	29	-9	14	30	9	0.74
Relative Strength - 5W/30W	9	20	-40	19	8	11	19	53	-27	-18	15	62	16	25	18	24	1	18	3	36	-11	24	1	-2	0.52
High Debt/Equity (1)	9	53	-40	0	15	-2	16	34	-13	14	5	-5	-2	29	13	18	-2	19	19	18	-21	14	10	11	0.46
Variability of Earnings	9	56	-46	4	14	14	17	43	-21	-5	21	14	7	19	14	31	-1	22	12	17	-15	18	16	4	0.54
Price Return - 9M	8	10	-46	21	10	17	24	54	-26	-19	8	51	38	29	22	28	5	22	2	37	-12	29	8	2	0.58
Five-Year ROE (Adjusted By Debt)	8	40	-38	4	10	5	11	39	-26	-6	-1	37	27	35	17	35	19	-4	5	56	13	24	13	-2	0.62
Equal Wgt. S&P500	8	44	-42	-1	15	6	16	39	-19	0	8	10	11	26	17	29	-2	12	12	32	-15	22	16	2	0.54
Five-Year ROE	7	44	-35	1	12	-3	8	33	-18	-15	1	45	29	32	19	41	17	-5	5	59	2	24	10	-4	0.58
Projected Five-Year EPS Growth	7	56	-55	18	6	9	6	65	-40	-33	-19	61	24	23	14	29	-1	10	3	32	-7	30	6	15	0.37
Share Repurchase	7	39	-41	-4	19	9	12	36	-9	16	18	11	8	36	15	37	4	6	9	35	-13	19	19	4	0.67
Neglect-Analyst Coverage	7	52	-44	-4	25	1	19	42	-18	16	4	-1	-2	29	20	23	2	14	10	39	-29	na	na	na	0.42
Positive Earnings Surprise	6	35	-36	1	18	1	18	35	-21	-1	14	21	14	34	21	34	2	18	8	26	-5	27	13	10	0.70
Price/Sales	6	112	-48	-12	17	0	24	67	-29	22	-6	-1	13	38	19	16	0	26	21	51	-36	4	28	4	0.43
Price/Free Cash Flow	6	64	-42	-8	20	11	26	45	0	33	5	6	12	35	21	24	3	15	18	38	-19	13	26	12	0.72
Earnings Momentum	6	41	-45	-5	10	16	22	40	-17	-6	-4	24	15	23	17	28	1	15	12	34	-15	17	18	10	0.55
Beta	6	119	-54	-5	10	-6	0	86	-48	-22	-6	60	34	30	13	38	0	16	16	49	-26	9	17	0	0.37
One-Year ROE (Adj) for Debt)	5	38	-41	12	16	3	18	28	-23	-5	-5	29	24	38	18	42	19	-7	1	47	13	28	10	-1	0.62
Price/Cash Flow	5	68	-42	-1	23	13	23	37	-3	28	-7	22	-7	33	16	21	-1	11	21	43	-23	13	34	8	0.62
Price Return - 11M	5	13	-48	7	3	19	21	36	-8	-9	-7	61	43	35	29	27	0	27	18	39	-13	38	1	9	0.62
Estimate Dispersion	5	89	-59	-16	16	3	23	78	-35	-3	3	53	5	10	12	19	-1	22	23	31	-37	na	na	na	0.33
Price Return - 3M	5	34	-44	18	8	10	12	49	-26	-20	1	49	11	24	16	30	1	19	16	41	-15	17	16	-9	0.49
Return on Capital	4	39	-43	11	14	3	14	27	-13	-3	6	15	27	35	21	38	17	2	19	79	-11	18	20	-18	0.58
Equity Duration	4	48	-45	8	8	13	19	43	-35	-17	-1	33	20	25	16	19	2	16	15	45	-30	14	14	11	0.44
Price Return - 12M	4	10	-45	12	3	23	18	33	-12	-14	-7	60	39	31	23	26	1	30	18	41	-9	30	7	-1	0.60
DDM Alpha	4	11	-41	-2	15	6	17	21	-18	22	12	4	10	30	20	36	5	6	1	30	-15	21	15	2	0.53
Alpha Surprise Model	4	30	-35	4	19	4	19	24	-12	3	18	8	9	41	16	36	3	11	5	31	-6	33	14	12	0.74
Forward Earnings Yield	4	96	-51	-14	17	17	31	51	-23	27	-2	2	0	33	31	32	-1	23	20	57	-25	11	37	-2	0.52
Relative Strength - 30W/75W	4	11	-53	3	9	26	19	31	-15	-8	-7	64	45	27	26	34	-1	28	12	40	6	19	15	-9	0.58
Foreign Exposure	4	70	-42	12	9	7	11	66	-25	-2	0	40	10	12	23	35	7	18	6	38	-14	16	7	10	0.54
One-Year ROE	3	39	-38	13	14	4	14	26	-13	-2	9	10	26	31	24	42	16	-5	1	51	10	23	11	-3	0.68
Most Active	3	72	-54	-10	13	-9	12	61	-44	-26	-18	74	59	39	31	41	6	14	20	47	3	37	15	9	0.49
Earnings Estimate Revision	3	32	-50	2	16	22	21	50	-31	-15	14	16	25	24	24	-3	25	8	30	-11	na	na	na	na	0.49
Return on Assets	3	41	-43	12	10	5	12	25	-14	1	-6	35	23	32	19	35	17	-8	1	56	15	29	10	1	0.64
S&P500	2	23	-38	4	14	3	9	26	-23	-13	-10	20	27	31	20	34	-2	7	5	26	-7	27	12	2	0.47
Price/200-Day Avg	2	13	-42	22	12	16	16	50	-29	-17	15	56	21	28	16	29	2	17	2	34	-11	20	-1	-7	0.50
Earnings Yld	1	66	-43	-14	17	16	26	34	-17	25	21	8	-2	33	15	39	-1	22	19	52	-21	18	33	-3	0.61
Price Return - 12M and 1M	1	12	-44	-3	10	14	20	39	-1	3	2	24	29	37	24	36	-1	22	10	37	-20	32	12	21	0.69

Recent reports

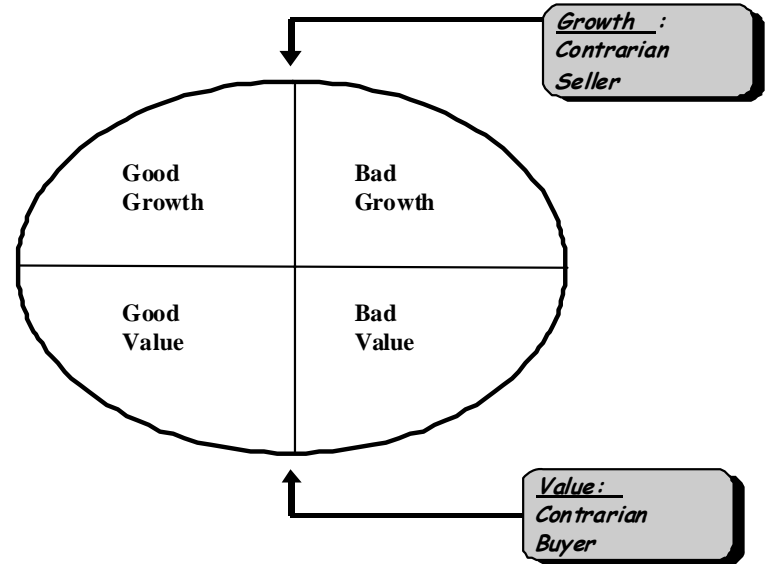
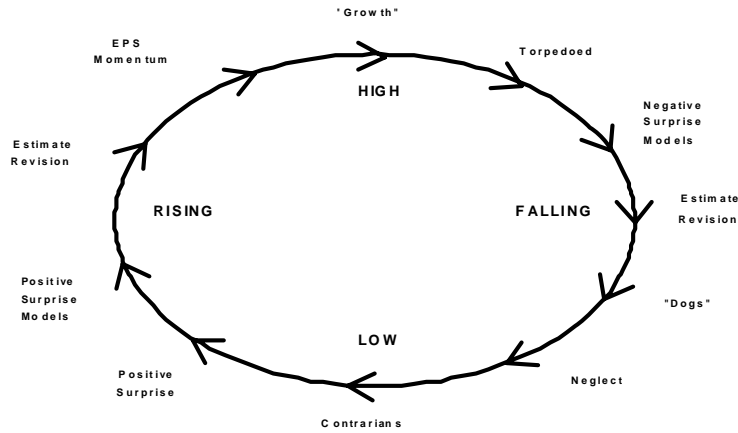
- Another tough month for active managers
- Free cash flow is king
- Shorts for the summer
- 61% of active managers beat the market in July
- More beats ahead, but watch guidance
- 46% of active managers beat the market in June
- Breadth ratios continue decline, some warning signs
- Backtesting the High-Quality Dividend Yield strategy
- Five reasons to like quality
- Macro market came back
- Seeking organic top-line growth
- Making sense of the move in the dollar
- Quant funds unveiled
- Signs of a strong season
- Quant golden age redux
- Breadth ratios: strong but slowing
- Large cap funds performance update
- The 4 stages of an upturn
- Three themes and a stock screen
- Credit stabilized, some stocks left behind
- Positioning for the next leg of the VIX
- Back to Basics: Stocks and the top line

Earnings expectation life cycle

Earnings Expectation Life Cycle

Earnings Expectation Life Cycle

Earnings Expectations Life Cycle

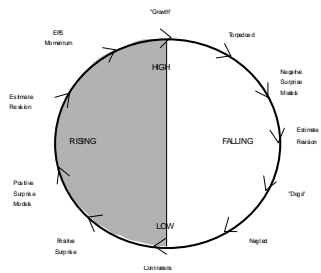


Source: BoA Merrill Lynch US Quantitative Strategy

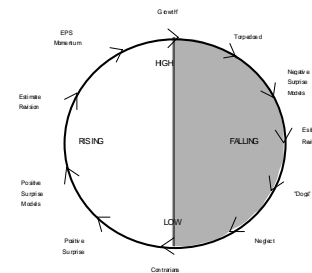
Falling

Rising

Earnings Expectations Life Cycle



Earnings Expectations Life Cycle





Global Team

Global/Asia Pacific/Emerging Markets

Nigel Tupper >> +61 2 9226 5747
Quantitative Strategist
ML (Australia)
nigel.tupper@baml.com

Carrie Zhao +1 646 855 5855
Quantitative Strategist
MLPF&S
carrie.zhao@baml.com

Girish Nair >> +61 2 9226 5749
Quantitative Strategist
ML (Australia)
girish.nair@baml.com

Europe

Khuram Chaudhry >> +44 20 7996 2086
Quantitative Strategist
MLPF&S (UK)
khuram.chaudhry@baml.com

Obe Ejikeme >> +44 20 7996 4230
Quantitative Strategist
MLPF&S (UK)
obe.ejikeme@baml.com

>> Employed by a non-US affiliate of MLPF&S and is not registered/qualified as a research analyst under the NYSE/NASD rules.

Analyst Certification

I, Savita Subramanian, 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 recommendations or view expressed in this research report.

Important Disclosures

FUNDAMENTAL EQUITY OPINION KEY: Opinions include a Volatility Risk Rating, an Investment Rating and an Income Rating. *VOLATILITY RISK RATINGS*, indicators of potential price fluctuation, are: A - Low, B - Medium and C - High. *INVESTMENT RATINGS* reflect the analyst's assessment of a stock's: (i) absolute total return potential and (ii) attractiveness for investment relative to other stocks within its *Coverage Cluster* (defined below). There are three investment ratings: 1 - Buy stocks are expected to have a total return of at least 10% and are the most attractive stocks in the coverage cluster; 2 - Neutral stocks are expected to remain flat or increase in value and are less attractive than Buy rated stocks and 3 - Underperform stocks are the least attractive stocks in a coverage cluster. Analysts assign investment ratings considering, among other things, the 0-12 month total return expectation for a stock and the firm's guidelines for ratings dispersions (shown in the table below). The current price objective for a stock should be referenced to better understand the total return expectation at any given time. The price objective reflects the analyst's view of the potential price appreciation (depreciation).

Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster*
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

* Ratings dispersions may vary from time to time where BofAML Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

INCOME RATINGS, indicators of potential cash dividends, are: 7 - same/higher (dividend considered to be secure), 8 - same/lower (dividend not considered to be secure) and 9 - pays no cash dividend. *Coverage Cluster* is comprised of stocks covered by a single analyst or two or more analysts sharing a common industry, sector, region or other classification(s). A stock's coverage cluster is included in the most recent BofAML Comment referencing the stock.

Important Disclosures

Due to the nature of strategic analysis, the issuers or securities recommended or discussed in this report are not continuously followed. Accordingly, investors must regard this report as providing stand-alone analysis and should not expect continuing analysis or additional reports relating to such issuers and/or securities.

Due to the nature of quantitative analysis, the issuers or securities recommended or discussed in this report are not continuously followed. Accordingly, investors must regard this report as providing stand-alone analysis and should not expect continuing analysis or additional reports relating to such issuers and/or securities.

Other Important Disclosures

BofA Merrill Lynch (BofAML) Research refers to the combined Global Research operations of Merrill Lynch and BAS.

Officers of MLPF&S or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.

Merrill Lynch Research policies relating to conflicts of interest are described at <http://www.ml.com/media/43347.pdf>.

"Merrill Lynch" includes Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") and its affiliates, including BofA (defined below). "BofA" refers to Banc of America Securities LLC ("BAS"), Banc of America Securities Limited ("BASL") and their affiliates. Investors should contact their Merrill Lynch or BofA representative if they have questions concerning this report.

Information relating to Non-US affiliates of Merrill Lynch and Distribution of Affiliate Research Reports:

MLPF&S, BAS, and BASL distribute, or may in the future distribute, research reports of the following non-US affiliates in the US (short name: legal name): Merrill Lynch (France): Merrill Lynch Capital Markets (France) SAS; Merrill Lynch (Frankfurt): Merrill Lynch International Bank Ltd, Frankfurt Branch; Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd; Merrill Lynch (Milan): Merrill Lynch International Bank Limited; MLPF&S (UK): Merrill Lynch, Pierce, Fenner & Smith Limited; Merrill Lynch (Australia): Merrill Lynch Equities (Australia) Limited; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited; Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd; Merrill Lynch (Canada): Merrill Lynch Canada Inc; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa; Merrill Lynch (Argentina): Merrill Lynch Argentina SA; Merrill Lynch (Japan): Merrill Lynch Japan Securities Co, Ltd; Merrill Lynch (Seoul): Merrill Lynch International Incorporated (Seoul Branch); Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd.; DSP Merrill Lynch (India): DSP Merrill Lynch Limited; PT Merrill Lynch (Indonesia): PT Merrill Lynch Indonesia; Merrill Lynch (Israel): Merrill Lynch Israel Limited; Merrill Lynch (Russia): Merrill Lynch CIS Limited, Moscow; Merrill Lynch (Turkey): Merrill Lynch Yatirim Bankasi A.S.; Merrill Lynch (Dubai): Merrill Lynch International, Dubai Branch; MLPF&S (Zürich rep. office): MLPF&S Incorporated Zürich representative office; Merrill Lynch (Spain): Merrill Lynch Capital Markets Espana, S.A.S.V.; Merrill Lynch (Brazil): Banco Merrill Lynch de Investimentos S.A.

This note has been approved for publication in the United Kingdom by Merrill Lynch, Pierce, Fenner & Smith Limited and BASL, which are authorized and regulated by the Financial Services Authority; has been considered and distributed in Japan by Merrill Lynch Japan Securities Co, Ltd and Banc of America Securities – Japan, Inc., registered securities dealers under the Financial Instruments and Exchange Law in Japan; is distributed in Hong Kong by Merrill Lynch (Asia Pacific) Limited and Banc of America Securities Asia Limited, which are regulated by the Hong Kong SFC and the Hong Kong Monetary Authority; is issued and distributed in Taiwan by Merrill Lynch Securities (Taiwan) Ltd.; is issued and distributed in India by DSP Merrill Lynch Limited; and is issued and distributed in Singapore by Merrill Lynch International Bank Limited (Merchant Bank), Merrill Lynch (Singapore) Pte Ltd (Company Registration No.'s F 06872E and 198602883D respectively) and Bank of America Singapore Limited (Merchant Bank). Merrill Lynch International Bank Limited (Merchant Bank), Merrill Lynch (Singapore) Pte Ltd and Bank of America Singapore Limited (Merchant Bank) are regulated by the Monetary Authority of Singapore. Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 provides this note in Australia in accordance with section 911B of the Corporations Act 2001 and neither it nor any of its affiliates involved in preparing this note is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this note in Brazil.

Merrill Lynch (Frankfurt) distributes this report in Germany. Merrill Lynch (Frankfurt) is regulated by BaFin.

Other Important Disclosures

This research report has been prepared and issued by MLPF&S and/or one or more of its non-US affiliates. MLPF&S is the distributor of this research report in the US and accepts full responsibility for research reports of its non-US affiliates distributed to MLPF&S clients in the US. Any US person (other than BAS and its respective clients) receiving this research report and wishing to effect any transaction in any security discussed in the report should do so through MLPF&S and not such foreign affiliates.

BAS distributes this research report to its clients and accepts responsibility for the distribution of this report in the US to BAS clients. Transactions by US persons that are BAS clients in any security discussed herein must be carried out through BAS.

General Investment Related Disclosures:

This research report provides general information only. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options, futures, warrants, and contracts for differences). This report is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of any specific person. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this report and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this report.

Securities and other financial instruments discussed in this report, or recommended, offered or sold by Merrill Lynch, are not insured by the Federal Deposit Insurance Corporation and are not deposits or other obligations of any insured depository institution (including, Bank of America, N.A.). Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance. Levels and basis for taxation may change.

This report may contain a short-term trading idea or recommendation, which highlights a specific near-term catalyst or event impacting the company or the market that is anticipated to have a short-term price impact on the equity securities of the company. Short-term trading ideas and recommendations are different from and do not affect a stock's fundamental equity rating, which reflects both a longer term total return expectation and attractiveness for investment relative to other stocks within its Coverage Cluster. Short-term trading ideas and recommendations may be more or less positive than a stock's fundamental equity rating.

BofA Merrill Lynch is aware that the implementation of the ideas expressed in this report may depend upon an investor's ability to "short" securities or other financial instruments and that such action may be limited by regulations prohibiting or restricting "shortselling" in many jurisdictions. Investors are urged to seek advice regarding the applicability of such regulations prior to executing any short idea contained in this report.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned in this report. Investors in such securities and instruments, including ADRs, effectively assume currency risk.

Other Important Disclosures

UK Readers: The protections provided by the U.K. regulatory regime, including the Financial Services Scheme, do not apply in general to business coordinated by Merrill Lynch entities located outside of the United Kingdom. These disclosures should be read in conjunction with the BASL general policy statement on the handling of research conflicts, which is available upon request.

Officers of MLPF&S or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.

Merrill Lynch is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. Merrill Lynch may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

Merrill Lynch, through business units other than BofAML Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented in this report. Such ideas or recommendations reflect the different time frames, assumptions, views and analytical methods of the persons who prepared them, and Merrill Lynch is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this report.

In the event that the recipient received this report pursuant to a contract between the recipient and MLPF&S for the provision of research services for a separate fee, and in connection therewith MLPF&S may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom MLPF&S has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by MLPF&S). MLPF&S is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities mentioned in this report.

Copyright and General Information regarding Research Reports:

Copyright 2010 Merrill Lynch, Pierce, Fenner & Smith Incorporated. All rights reserved. iQmethod, iQmethod 2.0, iQprofile, iQtoolkit, iQworks are service marks of Merrill Lynch & Co., Inc. iQanalytics®, iQcustom®, iQdatabase® are registered service marks of Merrill Lynch & Co., Inc. This research report is prepared for the use of Merrill Lynch clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of Merrill Lynch. Merrill Lynch research reports are distributed simultaneously to internal and client websites and other portals by Merrill Lynch and are not publicly-available materials. Any unauthorized use or disclosure is prohibited. Receipt and review of this research report constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained in this report (including any investment recommendations, estimates or price targets) without first obtaining expressed permission from an authorized officer of Merrill Lynch.

Materials prepared by Merrill Lynch research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of Merrill Lynch, including investment banking personnel. Merrill Lynch has established information barriers between BofAML Research and certain business groups. As a result, Merrill Lynch does not disclose certain client relationships with, or compensation received from, such companies in research reports.

Other Important Disclosures

To the extent this report discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this report. Merrill Lynch research personnel's knowledge of legal proceedings in which any Merrill Lynch entity and/or its directors, officers and employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving companies mentioned in this report is based on public information. Facts and views presented in this material that relate to any such proceedings have not been reviewed by, discussed with, and may not reflect information known to, professionals in other business areas of Merrill Lynch in connection with the legal proceedings or matters relevant to such proceedings.

This report has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of MLPF&S, any of its affiliates or their research analysts has any authority whatsoever to make any representation or warranty on behalf of the issuer(s). Merrill Lynch policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis.

Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

The information herein (other than disclosure information relating to Merrill Lynch and its affiliates) was obtained from various sources and we do not guarantee its accuracy. This report may contain links to third-party websites. Merrill Lynch is not responsible for the content of any third-party website or any linked content contained in a third-party website. Content contained on such third-party websites is not part of this report and is not incorporated by reference into this report. The inclusion of a link in this report does not imply any endorsement by or any affiliation with Merrill Lynch. Access to any third-party website is at your own risk, and you should always review the terms and privacy policies at third-party websites before submitting any personal information to them. Merrill Lynch is not responsible for such terms and privacy policies and expressly disclaims any liability for them.

Certain outstanding reports may contain discussions and/or investment opinions relating to securities, financial instruments and/or issuers that are no longer current. Always refer to the most recent research report relating to a company or issuer prior to making an investment decision.

In some cases, a company or issuer may be classified as Restricted or may be Under Review or Extended Review. In each case, investors should consider any investment opinion relating to such company or issuer (or its security and/or financial instruments) to be suspended or withdrawn and should not rely on the analyses and investment opinion(s) pertaining to such issuer (or its securities and/or financial instruments) nor should the analyses or opinion(s) be considered a solicitation of any kind. Sales persons and financial advisors affiliated with BAS, MLPF&S or any of their affiliates may not solicit purchases of securities or financial instruments that are Restricted or Under Review and may only solicit securities under Extended Review in accordance with firm policies.

Neither Merrill Lynch nor any officer or employee of Merrill Lynch accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this report or its contents.