



## Growth and Value Equity Styles: What's the Difference?

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## Topics

- › Growth Versus Value – An Analysis of Style Investing
- › Differences Between Russell and S&P Style Indices
- › Russell Sector Allocation Differences by Market Capitalization
- › Summary of Major Differences Within Each Sector Across Large, Mid and Small Cap Russell Indices
- › Economic Cycles, Sector Rotation, and Russell Indices
- › Summary of Major Findings

# Growth Versus Value – An Analysis of Style Investing

Traditional top-down strategic asset allocators actively manage the mix of equities in their portfolios to enhance portfolio returns. This active portfolio management approach includes adjusting equity allocations between growth and value equity styles across large, mid, and small cap stocks. Typically, these active decisions to over- or underweight growth versus value stocks coincide with anticipated shifts in the stages of the U.S. economic cycle. During recessions, growth companies are favored over cyclicals which have historically underperformed during economic contractions. Given how the major index firms construct their growth and value benchmarks, the difference in performance between the two styles can be significant especially around turning points in economic activity.

While the current U.S. recession isn't over, there have been some recent signs that the economy is in transition towards an early expansion phase. The overall stock market has been responding positively to the recently announced "less bad" economic news, and is starting to look across the recession towards economic growth in the early part of 2010. Many strategists are now considering asset allocation shifts towards companies and sectors which should benefit from a cyclical expansion.

In the following pages, we have dissected the major equity indices that typical asset allocators tend to focus on to get exposure to value and growth stocks. The analysis should be helpful in getting the intended sector exposure whether through passive or active investment managers. We find answers to the following questions regarding shifting from growth to value equity styles:

- › What is the difference between Russell and S&P growth/value indices?
- › Have the sector allocations changed considerably since the October 2007 market peak?
- › Are the sector allocations across industries the same for large, mid, and small cap indices?
- › What company bets are being made when shifting from growth to value?
- › What indices are best exposed to industries that have performed well in an economic expansion?

## Differences Between Russell and S&P Style Indices

# Which Value & Growth?

## Russell vs S&P Indices

Russell and S&P use distinct methodologies to distinguish between 'Growth' and 'Value'

› Russell Factors:<sup>3</sup>

- I/B/E/S Forecast Long-Term Growth Estimate Mean (Growth factor)
- Book Value/Price (Value factor)

› S&P Factors:<sup>4</sup>

- 5 Year EPS Growth Rate (Growth factor)
- 5-Year Sales Growth Rate (Growth factor)
- 5-Year Internal Growth Rate [IGR= ROE x Earnings Retention Rate] (Growth factor)
- Book Value/Price (Value factor)
- Cash Flow/Price (Value factor)
- Sales/Price (Value factor)
- Dividend Yield (Value factor)

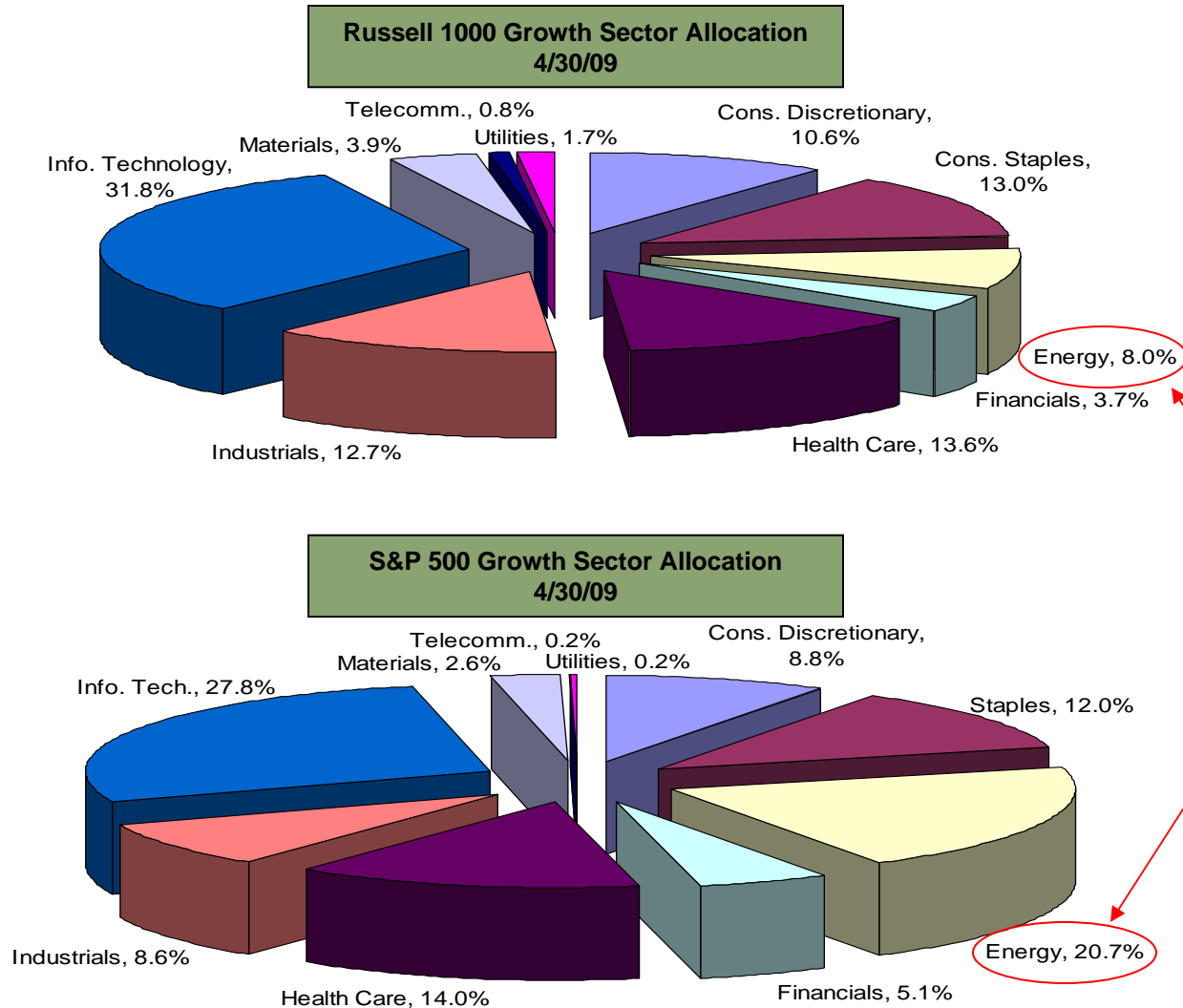
- › Discrepancies arise due to Russell's use of a forward looking forecast (I/B/E/S) for growth versus S&P's use of prior 5-year averages.

Methodology differences lead to significant variation in the sector allocation of the style indices.

- › Most notable in the large cap Energy and Industrials sectors where the relative over- or under- weight is significantly different between Russell and S&P.

# Which Growth?

## Russell 1000 Growth vs S&P 500 Growth

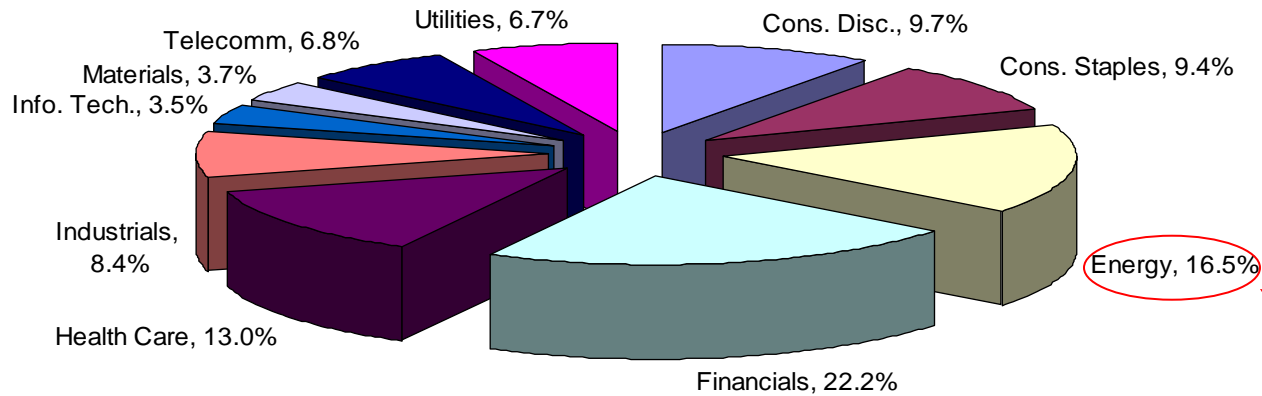


Source: S&P, Barra, Russell

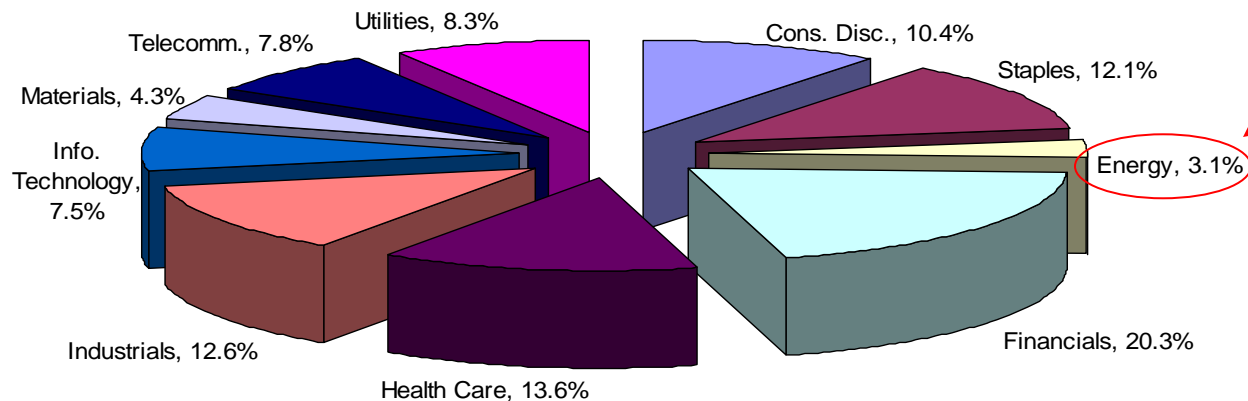
# Which Value?

## Russell 1000 Value vs S&P 500 Value

**Russell 1000 Value Sector Allocation  
4/30/09**



**S&P 500 Value Sector Allocation  
4/30/09**



Again, energy could be the swing factor that explains the difference in performance between these two value indices.

Source: S&P, Barra, Russell

# Index Evolution :

## Indices Were Different at the Market Top

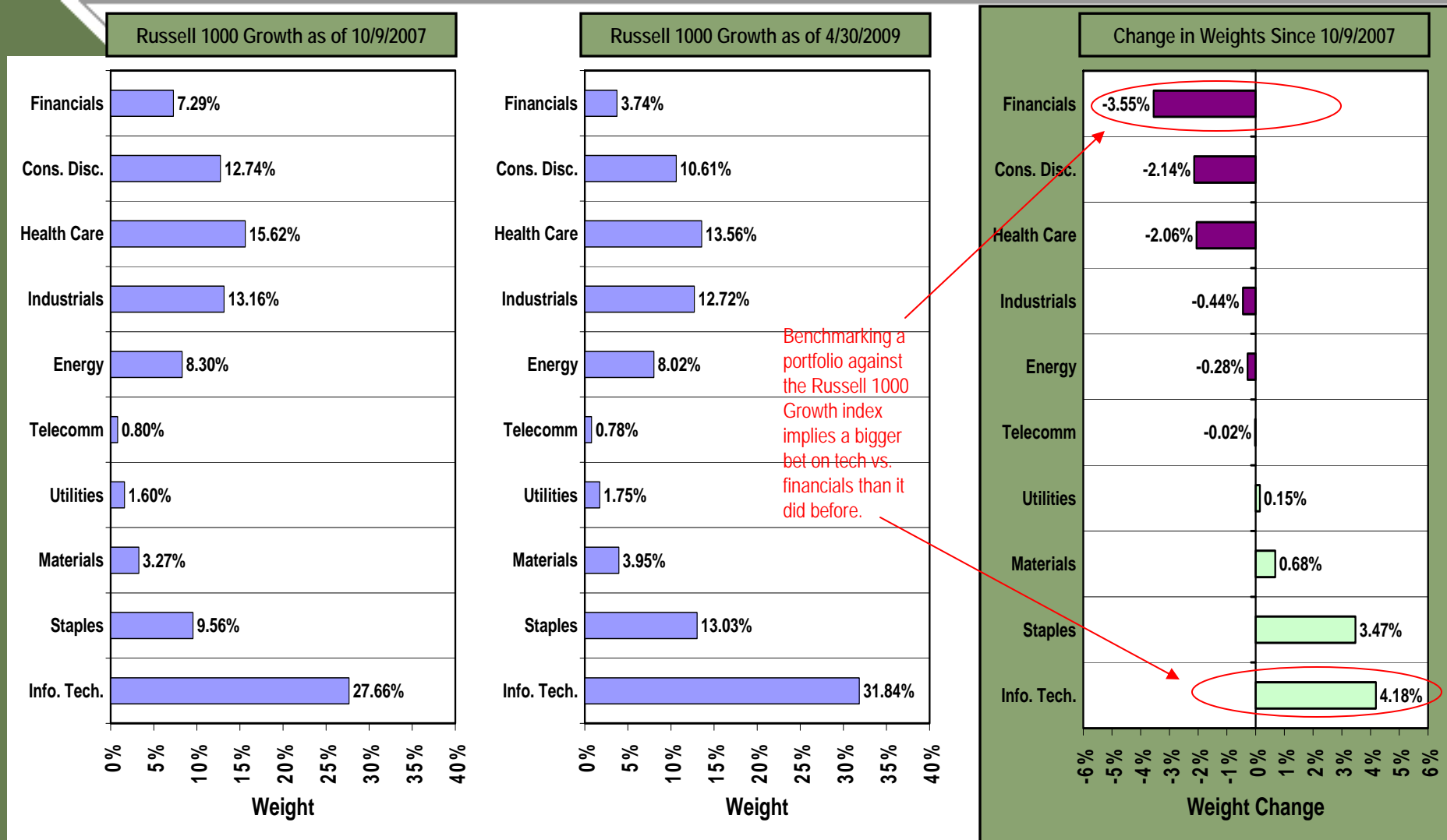
The makeup of the Russell and S&P have both changed since the October 2007 peak.

- The weight to Financials has dropped in all indices, but it has fallen more in the value indices than in the growth.
- Information Technology has increased more in the growth indices.
- Health Care has shifted from growth to value
- Energy has stayed as value in the Russell indices. In the S&P indices, Energy has shifted from value to growth.
- Consumer Staples increased slightly towards growth in the Russell indices. Within the S&P indices, Consumer Staples has shifted largely to value.

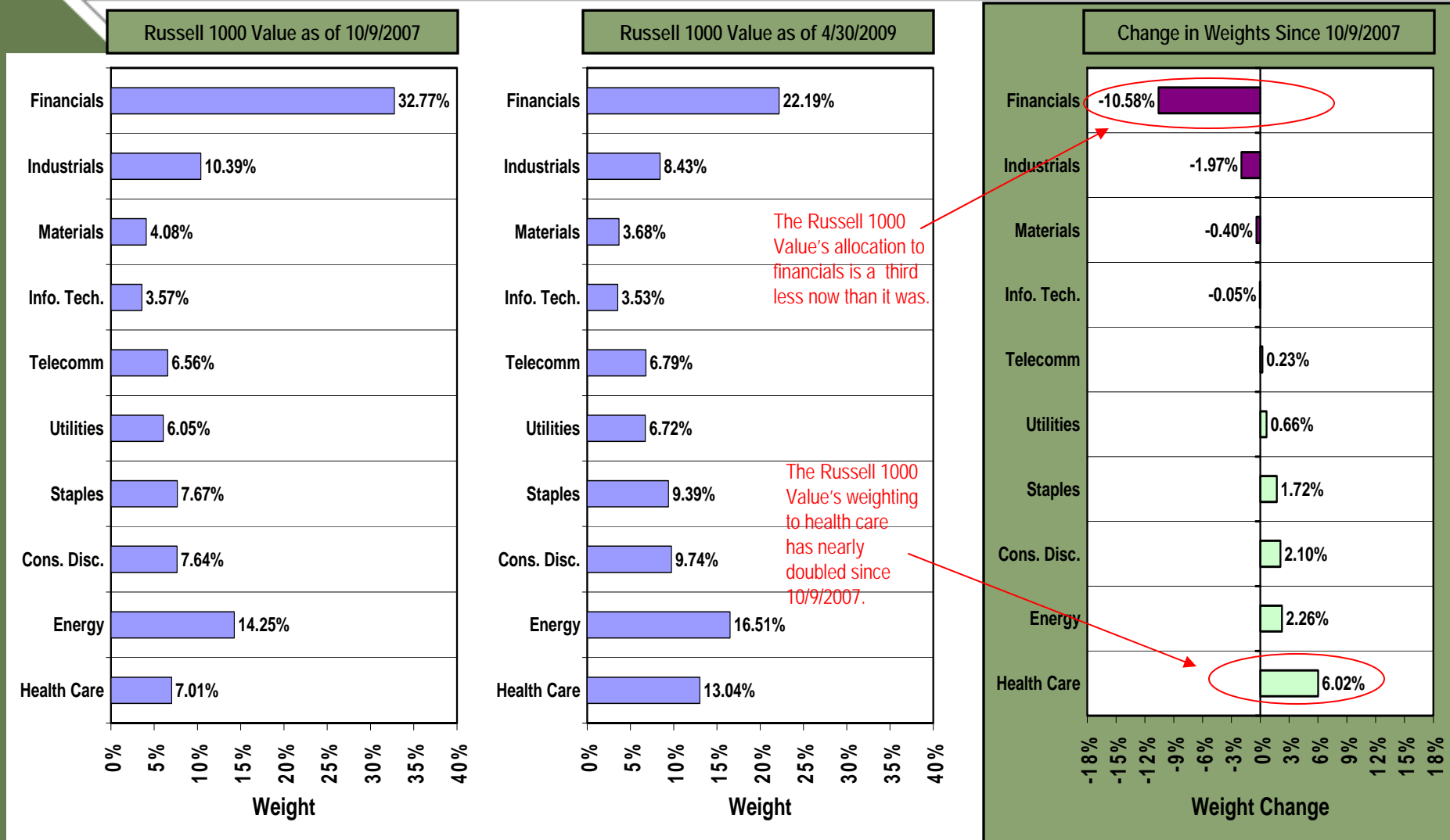
Current differences between the Russell and S&P Indices could lead to relative performance discrepancies.

- For example, Russell has more large cap Energy classified as value while S&P has more large cap Energy classified as growth.
- If Energy outperforms (holding all else constant) then:
  - S&P 500 Growth would outperform S&P 500 Value
  - Russell 1000 Value would outperform Russell 1000 Growth

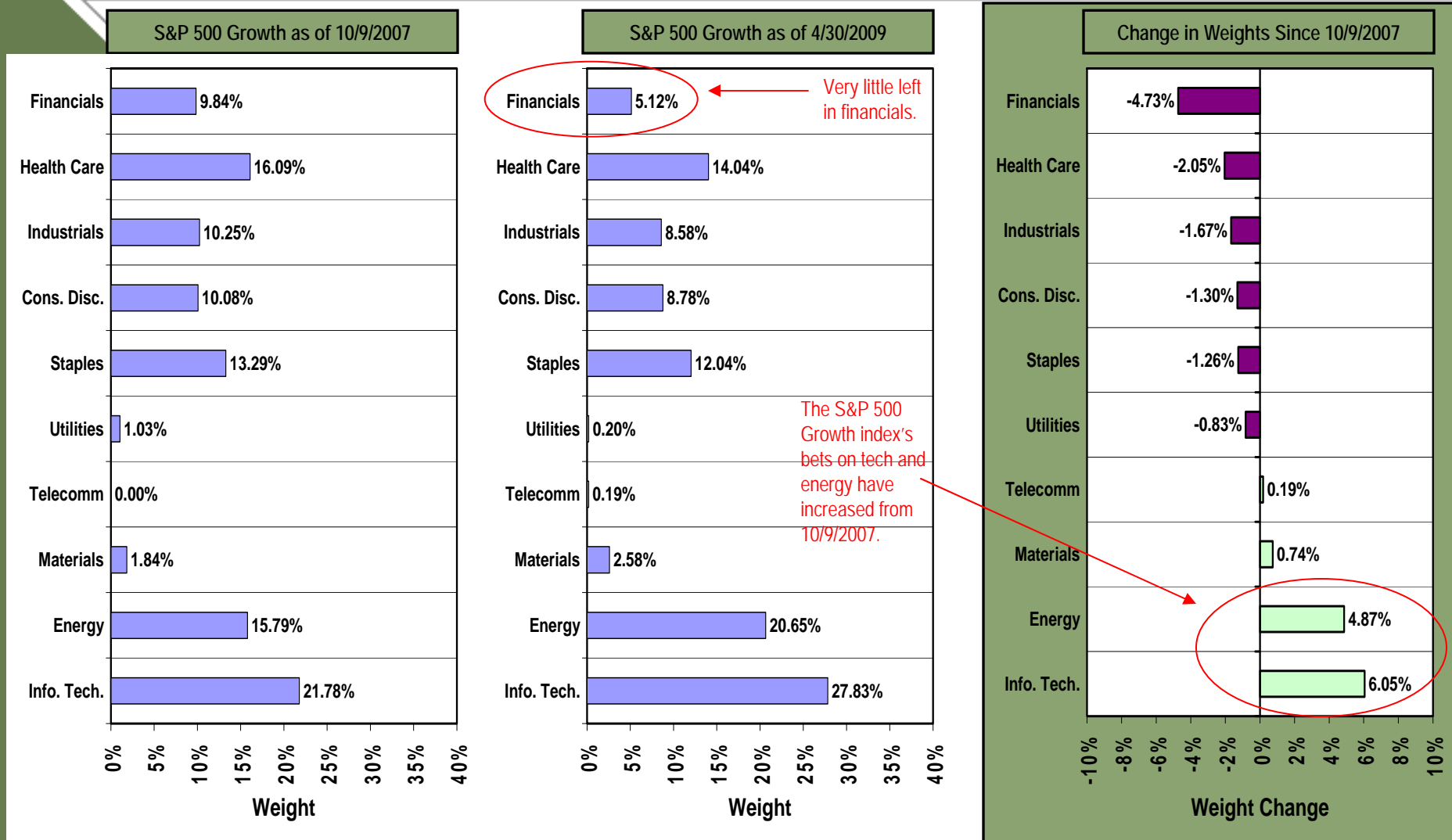
# Sector Weights Differ From the Market Top : Russell 1000 Growth



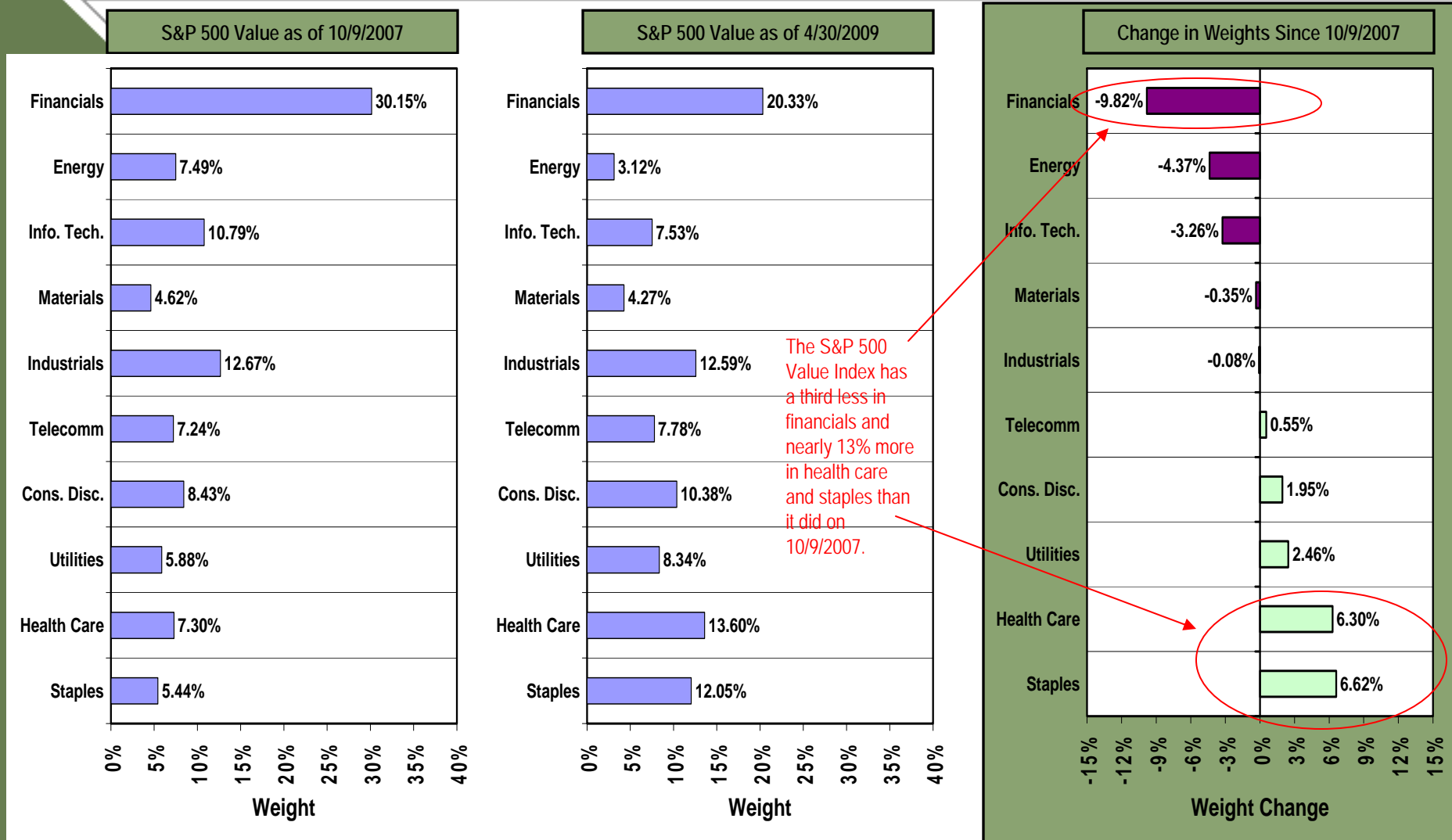
# Sector Weights Differ From the Market Top : Russell 1000 Value



# Sector Weights Differ From the Market Top : S&P 500 Growth



# Sector Weights Differ From the Market Top : S&P 500 Value



## Russell Sector Allocation Differences by Market Capitalization

# Russell Growth and Value Index Characteristics Vary According to Market Cap

## Greatest Growth-Value Disparity in Information Technology.

- › Large cap has a growth over-weight of 28.3%.
- › Mid cap has a growth over-weight of 13.3%.
- › Small cap has a growth over-weight of 11.2%

## Health Care weighting varies more in Small and Mid Cap spaces.

- › Large cap has a growth over-weight of 0.5%.
- › Mid cap has a growth over-weight of 8.1%.
- › Small cap has a growth over-weight of 18.4%

## Energy bets differ in sign from Large to Mid and Small.

- › Large cap has a growth under-weight of 8.5%
- › Mid cap has a growth over-weight of 2.8%.
- › Small cap has a growth over-weight of 3.6%

Value is consistently a bet on Financials, but to a varying extent.

- › Large cap has a growth under-weight of 18.5%
- › Mid cap has a growth under-weight of 22.0%.
- › Small cap has a growth under-weight of 29.7%

Some aspects are similar across market caps.

- › Value indices are higher average beta (beta to S&P 500).
- › Value indices have lower average price per share.
- › Value indices have, cumulatively, underperformed over the last 3 and 12 month periods.

Other large cap differences.

- › Large cap value has a larger average market cap than large cap growth. The opposite is true for the mid and small cap style indices.
- › Large cap indices show more concentration in single names than mid and small cap.

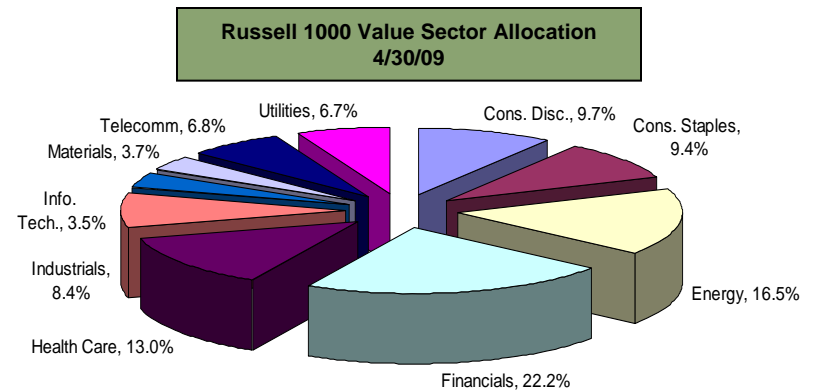
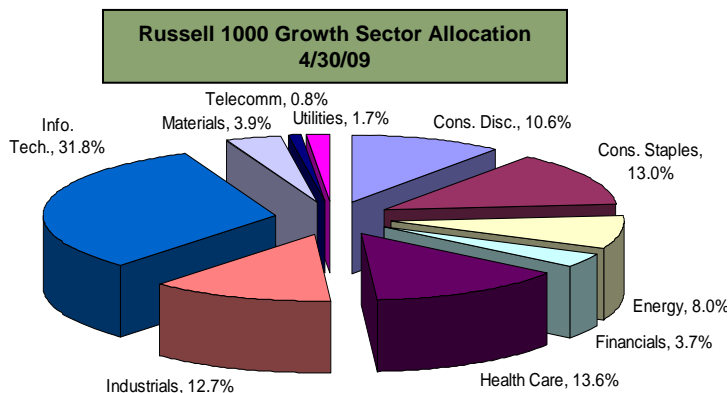
# Russell Large Cap Major Bets : Growth Compared to Value

## Factors.

- > Growth is a bet on lower Beta.
- > Growth is a bet on smaller cap stocks.
- > Growth is a bet on long term and short-term price momentum.
- > Growth is a bet on higher priced stocks.

## Sectors.

- > Growth is a bet for Information Technology (Growth has 28.3% over-weight relative to Value)
- > Growth is a bet for Industrials (Growth has 4.3% over-weight relative to Value)
- > Growth is a bet for Consumer Staples (Growth has 3.6% over-weight relative to Value)
- > Growth is a bet against Financials (Growth has 18.5% under-weight relative to Value)
- > Growth is a bet against Energy (Growth has 8.5% under-weight relative to Value)
- > Growth is a bet against Telecommunication Services (Growth has 6.0% under-weight relative to Value)



Russell 1000 Large Cap	Average Price	Average Cap (B\$)	Average Beta	Index Last 3 Month Return *As of 4/30/2009	Index Last 12 Month Return *As of 4/30/2009
<b>Growth</b>	\$ 50.24	\$ 54.14	0.94	10.40%	-31.89%
<b>Value</b>	\$ 35.33	\$ 68.88	1.11	4.13%	-39.33%
<b>Growth - Value</b>	\$ 14.92	\$ (14.74)	-0.17	6.27%	7.44%

Big difference in performance.

# Russell Large Cap Names : Major Differences

- › Much of the difference between the large cap growth and value indices is concentrated within a few companies.
- › The market cap weighting method of the Russell indices places large weights on mega-cap companies.
- › 10 names in the growth index constitute 22% of the difference from the value index.
- › 10 names in the value index make up nearly 30% of the difference from the growth index.

A few mega-cap Technology stocks make up much of the growth index.

Even though Exxon is in both indices, it makes up the largest difference between the two with a net 5.4% overweight in the value index.

Russell Large Cap Growth							Russell Large Cap Value						
Rank	Name	GICS Sector	Growth Weight	Value Weight	Difference (G-V)	Cumulative Difference	Rank	Name	GICS Sector	Growth Weight	Value Weight	Difference (V-G)	Cumulative Difference
1	MICROSOFT CORP	Info. Tech.	3.58%	0.00%	3.58%	3.58%	1	EXXON MOBIL CORP	Energy	1.35%	6.75%	5.39%	5.39%
2	INTERNATIONAL BUSINESS	Info. Tech.	3.12%	0.00%	3.12%	6.71%	2	AT&T INC	Telecomm	0.00%	3.80%	3.80%	9.19%
3	CISCO SYS INC	Info. Tech.	2.51%	0.00%	2.51%	9.22%	3	CHEVRON CORP NEW	Energy	0.00%	3.41%	3.41%	12.60%
4	APPLE INC	Info. Tech.	2.44%	0.00%	2.44%	11.66%	4	GENERAL ELECTRIC CO	Industrials	0.00%	3.32%	3.32%	15.92%
5	GOOGLE INC [A]	Info. Tech.	2.07%	0.00%	2.07%	13.73%	5	JPMORGAN CHASE & CO	Financials	0.00%	3.05%	3.05%	18.97%
6	HEWLETT PACKARD CO	Info. Tech.	1.95%	0.00%	1.95%	15.68%	6	PFIZER INC	Health Care	0.00%	2.25%	2.25%	21.23%
7	PHILIP MORRIS INTL INC	Cons. Staples	1.68%	0.00%	1.68%	17.37%	7	VERIZON COMMUNICATIONS	Telecomm	0.00%	2.16%	2.16%	23.38%
8	ORACLE CORP	Info. Tech.	1.66%	0.00%	1.66%	19.03%	8	WELLS FARGO & CO NEW	Financials	0.00%	2.11%	2.11%	25.49%
9	PEPSICO INC	Cons. Staples	1.63%	0.12%	1.52%	20.54%	9	JOHNSON & JOHNSON	Health Care	0.86%	2.71%	1.86%	27.35%
10	QUALCOMM INC	Info. Tech.	1.51%	0.00%	1.51%	22.05%	10	CONOCOPHILLIPS	Energy	0.00%	1.58%	1.58%	28.93%

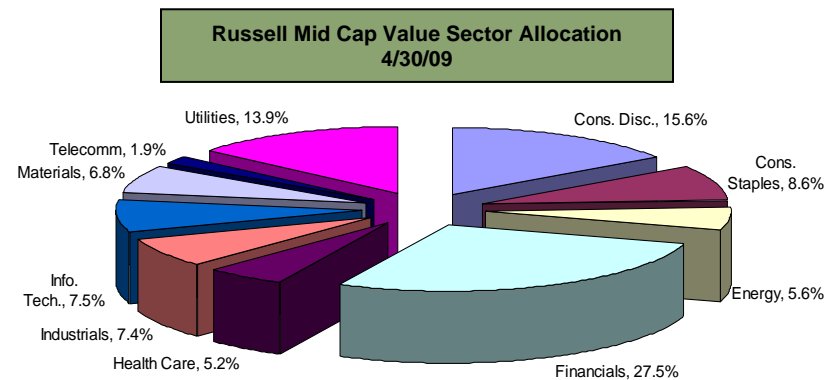
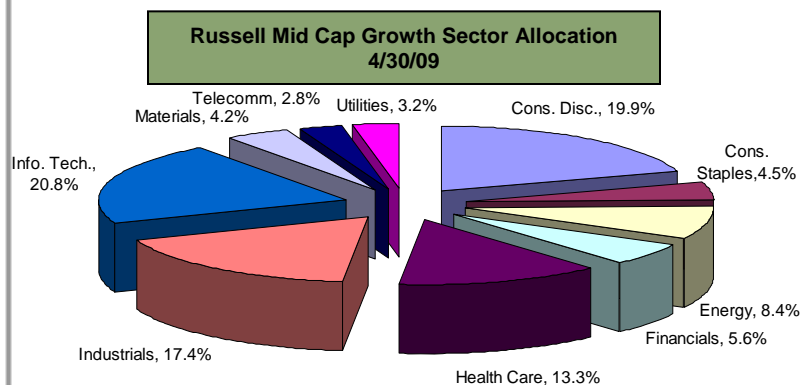
# Russell Mid Cap Major Bets : Growth Compared to Value

## Factors.

- › Growth is a bet on lower Beta.
- › Growth is a bet on larger cap stocks.
- › Growth is a bet on long-term and short-term price momentum.
- › Growth is a bet on higher priced stocks.

## Sectors.

- › Growth is a bet for Information Technology (Growth has 13.3% over-weight relative to Value)
- › Growth is a bet for Industrials (Growth has 10.0% over-weight relative to Value)
- › Growth is a bet for Health Care (Growth has 8.1% over-weight relative to Value)
- › Growth is a bet against Financials (Growth has 22.0% under-weight relative to Value)
- › Growth is a bet against Utilities (Growth has 10.8% under-weight relative to Value)
- › Growth is a bet against Consumer Staples (Growth has 4.0% under-weight relative to Value)



Russell 800 Mid Cap	Average Price	Average Cap (B\$)	Average Beta	Index Last 3 Month Return *As of 4/30/2009	Index Last 12 Month Return *As of 4/30/2009
<b>Growth</b>	\$ 34.25	\$ 5.90	1.11	15.57%	-35.90%
<b>Value</b>	\$ 28.65	\$ 4.97	1.23	11.04%	-37.05%
<b>Growth - Value</b>	\$ 5.60	\$ 0.93	-0.12	4.53%	1.15%

Source: Barra, Russell

# Russell Mid Cap Names : Major Differences

- › The concentration within stocks is less in the mid cap without the presence of the mega cap companies.
- › The top 10 names within each index make up 10% of the difference between the indices.
- › Ford Motor Co., a few utility stocks, and three insurance companies show the most concentration in the mid cap value index.
- › The concentration in technology names is less in the mid cap growth than it is in the large cap growth.

Less concentration in individual tech names.

Difference between benchmarks is less focused than in large cap.

Ford Motor Company is the largest mid cap value name.

Russell Mid Cap Growth							Russell Mid Cap Value						
Rank	Name	GICS Sector	Growth Weight	Value Weight	Difference (G-V)	Cumulative Difference	Rank	Name	GICS Sector	Growth Weight	Value Weight	Difference (V-G)	Cumulative Difference
1	YUM BRANDS INC	Cons. Disc.	1.24%	0.00%	1.24%	1.24%	1	FORD MTR CO DEL	Cons. Disc.	0.00%	1.21%	1.21%	1.21%
2	ALLERGAN INC	Health Care	1.12%	0.00%	1.12%	2.36%	2	PG&E CORP	Utilities	0.00%	1.16%	1.16%	2.37%
3	EXPRESS SCRIPTS INC	Health Care	1.06%	0.00%	1.06%	3.41%	3	AON CORP	Financials	0.00%	1.03%	1.03%	3.40%
4	AMERICAN TOWER CORP	Telecomm	0.99%	0.00%	0.99%	4.40%	4	SEMPRA ENERGY	Utilities	0.00%	1.01%	1.01%	4.41%
5	LIBERTY MEDIA CORP NEW	Cons. Disc.	0.99%	0.00%	0.99%	5.39%	5	MARSH & MCLENNAN COS I	Financials	0.00%	0.95%	0.95%	5.36%
6	SOUTHWESTERN ENERGY CO	Energy	0.96%	0.00%	0.96%	6.35%	6	AMERICAN ELEC PWR INC	Utilities	0.00%	0.93%	0.93%	6.29%
7	BROADCOM CORP	Info. Tech.	0.94%	0.00%	0.94%	7.29%	7	PROGRESSIVE CORP OHIO	Financials	0.00%	0.91%	0.91%	7.19%
8	TJX COS INC NEW	Cons. Disc.	0.93%	0.00%	0.93%	8.22%	8	CONSOLIDATED EDISON IN	Utilities	0.00%	0.89%	0.89%	8.08%
9	ST JUDE MED INC	Health Care	0.89%	0.00%	0.89%	9.12%	9	PROGRESS ENERGY INC	Utilities	0.00%	0.83%	0.83%	8.91%
10	JUNIPER NETWORKS INC	Info. Tech.	0.89%	0.00%	0.89%	10.01%	10	EDISON INTL	Utilities	0.00%	0.81%	0.81%	9.73%

# Russell Small Cap Major Bets : Growth Compared to Value

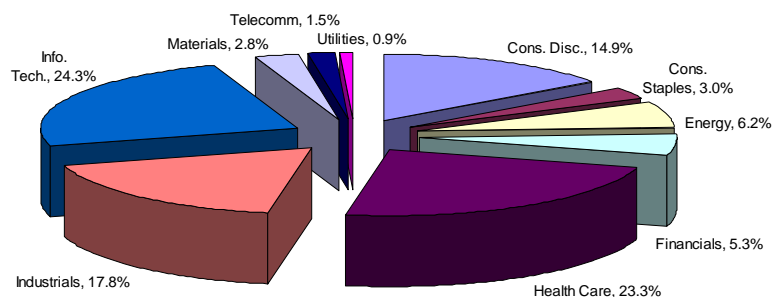
## Factors.

- › Growth is a bet on lower Beta.
- › Growth is a bet on larger cap stocks.
- › Growth is a bet on long-term and short-term price momentum.
- › Growth is a bet on higher priced stocks.

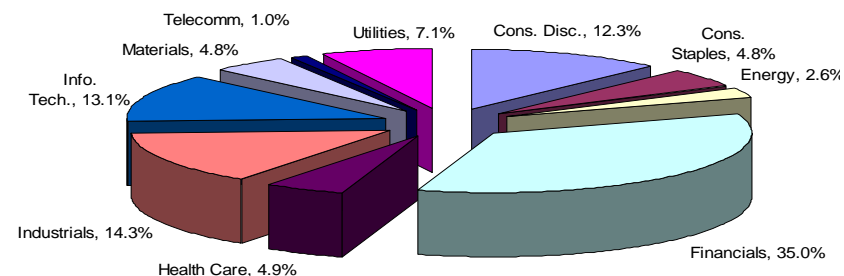
## Sectors.

- › Growth is a bet for Health Care (Growth has 18.4% over-weight relative to Value)
- › Growth is a bet for Information Technology (Growth has 11.2% over-weight relative to Value)
- › Growth is a bet for Energy (Growth has 3.6% over-weight relative to Value)
- › Growth is a bet against Financials (Growth has 29.7% under-weight relative to Value)
- › Growth is a bet against Utilities (Growth has 6.2% under-weight relative to Value)
- › Growth is a bet against Materials (Growth has 2.0% under-weight relative to Value)

**Russell 2000 Growth Sector Allocation  
4/30/09**



**Russell 2000 Value Sector Allocation  
4/30/09**



Russell 2000 Small Cap	Average Price	Average Cap (B\$)	Average Beta	Index Last 3 Month Return *As of 4/30/2009	Index Last 12 Month Return *As of 4/30/2009
<b>Growth</b>	\$ 22.06	\$ 0.96	1.10	12.40%	-30.56%
<b>Value</b>	\$ 19.64	\$ 0.81	1.20	8.63%	-31.70%
<b>Growth - Value</b>	\$ 2.43	\$ 0.15	-0.10	3.77%	1.14%

Source: Barra, Russell

# Russell Small Cap Names : Major Differences

- › The concentration within stocks is even less in the small cap indices.
- › Less variation in the market cap of stocks within the indices and more stocks altogether reduces the number of large weights.
- › The top 10 names within each index make up only 5% and 6% of the difference between the indices.

Concentration in the small cap indices is even less.

Russell Small Cap Growth							Russell Small Cap Value						
Rank	Name	GICS Sector	Growth Weight	Value Weight	Difference (G-V)	Cumulative Difference	Rank	Name	GICS Sector	Growth Weight	Value Weight	Difference (V-G)	Cumulative Difference
1	MYRIAD GENETICS INC	Health Care	0.95%	0.00%	0.95%	0.95%	1	RALCORP HLDGS INC NEW	Cons. Staples	0.09%	0.79%	0.70%	0.70%
2	ALEXION PHARMACEUTICAL	Health Care	0.75%	0.00%	0.75%	1.70%	2	REALTY INCOME CORP	Financials	0.00%	0.62%	0.62%	1.32%
3	AEROPOSTALE	Cons. Disc.	0.63%	0.00%	0.63%	2.33%	3	ASPEN INSURANCE HOLDIN	Financials	0.00%	0.55%	0.55%	1.87%
4	ITC HLDGS CORP	Utilities	0.59%	0.00%	0.59%	2.92%	4	SENIOR HSG PPTYS TR	Financials	0.00%	0.54%	0.54%	2.41%
5	DENDREON CORP	Health Care	0.57%	0.00%	0.57%	3.50%	5	WESTAR ENERGY INC	Utilities	0.00%	0.50%	0.50%	2.92%
6	WASTE CONNECTIONS INC	Industrials	0.57%	0.00%	0.57%	4.06%	6	PIEDMONT NAT GAS INC	Utilities	0.00%	0.49%	0.49%	3.41%
7	OSI PHARMACEUTICALS IN	Health Care	0.53%	0.00%	0.53%	4.59%	7	3COM CORP	Info. Tech.	0.00%	0.45%	0.45%	3.86%
8	SYBASE INC	Info. Tech.	0.62%	0.12%	0.51%	5.10%	8	FIRST NIAGARA FINL GP	Financials	0.00%	0.44%	0.44%	4.30%
9	NETFLIX INC	Cons. Disc.	0.50%	0.00%	0.50%	5.60%	9	AMERIGROUP CORP	Health Care	0.00%	0.44%	0.44%	4.74%
10	ALLSCRIPT MISYS HEALTC	Health Care	0.50%	0.00%	0.50%	6.10%	10	FIRSTMERIT CORP	Financials	0.00%	0.43%	0.43%	5.17%

## Summary of Major Differences Within Each Sector Across Large, Mid and Small Cap Russell Indices

# Summary of Major Differences Within Each Sector Across Large, Mid and Small Cap Russell Indices

## Consumer Discretionary:

- › Value stocks have outperformed growth names by a significant margin for the past 3 months
- › Value stocks are more volatile than growth names across market caps.

## Consumer Staples:

- › Large cap growth has an overweight to consumer staples while mid & small are both underweight the sector
- › Growth has outperformed value for the past 3 months.
- › Growth has a 4.67% overweight to 3 names: Philip Morris, Pepsi, & Wal-Mart
- › Weighted average market caps are similar for mid & small indices, but vary significantly between large growth vs large value

## Energy:

- › Small & mid-cap growth indices are overweight the energy sector, but large growth is underweight.
- › Large cap value market cap is on average twice the size of growth energy companies.
- › Large & small-cap growth energy stocks have outperformed their value stock counterparts for the past 3 months. Mid-cap growth has trailed.
- › Large cap value has 10% additional weighting towards Exxon, Chevron, ConocoPhillips vs the large cap growth index.

## Financials:

- › Value indices have 18% - 30% overweight to financials across all market cap indices versus growth styles. Small cap value has the biggest bet on financials.
- › Large value consists of much larger companies by market cap, and has an 8.5% relative overweight to JP Morgan, Wells Fargo, Bank of America, Goldman, and US Bancorp.
- › Growth stocks in the financial sector have significantly outperformed value names across all market caps for the past 3 months.

## Health Care:

- › Large cap is evenly weighted towards health care between value & growth, while the mid & small growth indices have significant overweights.
- › Large value companies are twice the size of large growth
- › Small cap growth has outperformed value healthcare stocks by a significant margin.

# Summary of Major Differences Within Each Sector Across Large, Mid and Small Cap Russell Indices

## Industrials:

- › Mid-cap growth has a 10% overweight to the sector vs mid-cap value
- › Value names are more volatile across all market caps
- › Large cap value names are on average three times the size of the growth companies

## Information Technology:

- › Large growth has a 28% overweight to tech vs a 13% & 11% overweight for mid-cap & small cap indices, respectively
- › Large growth has nearly a 14% overweight vs value in these 5 names: Microsoft, IBM, Cisco, Apple, and Google

## Materials:

- › 2% overweight for mid & small cap value indices vs growth.
- › Large cap value stocks have outperformed by nearly 13% in the past 3 months.

## Telecom:

- › Similar weighting across styles for mid & small caps, but have 6% overweight in large value vs growth.
- › Large value has nearly a 6% relative overweight towards AT&T, and Verizon
- › Small cap value names have significantly outperformed growth for the past 3 months.

## Utilities:

- › Significant outperformance by the value indices across all market caps for the past 12 months.
- › Mid-cap value has nearly a 5% relative overweight towards: PG&E, Sempra Energy, American Electric Power, Consolidated Edison, Progress Energy
- › Significant outperformance in the past 3 months with small cap growth index.

# Russell Sector Characteristics : Consumer Discretionary

Consumer Discretionary Large Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	10.61%	\$ 38.95	\$ 19.45	1.08	27.08%	-16.65%
Value	9.74%	\$ 27.69	\$ 21.41	1.27	34.63%	-24.01%
Growth - Value	0.87%	\$ 11.26	\$ (1.95)	-0.18	-7.56%	7.36%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
MCD	1.07%
TGT	0.60%
AMZN	0.56%
NKE	0.41%
YUM	0.35%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
HD	1.11%
DIS	0.81%
LOW	0.71%
TWX	0.51%
CMCSA	0.49%

Consumer Discretionary Mid Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	19.94%	\$ 36.44	\$ 6.77	1.18	34.45%	-17.36%
Value	15.58%	\$ 33.87	\$ 5.23	1.43	54.51%	-26.00%
Growth - Value	4.36%	\$ 2.57	\$ 1.54	-0.25	-20.05%	8.64%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
YUM	1.24%
LMDIA	0.99%
TJX	0.93%
SBUX	0.83%
APOL	0.63%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
F	1.21%
JCP	0.60%
FO	0.53%
M	0.51%
GPC	0.49%

Shifting to value is a beta call.

Value has outperformed in past 3 months.

Consumer Discretionary Small Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	14.90%	\$ 22.99	\$ 1.07	1.25	45.19%	-14.41%
Value	12.32%	\$ 16.18	\$ 0.67	1.41	63.03%	-13.31%
Growth - Value	2.58%	\$ 6.81	\$ 0.40	-0.17	-17.84%	-1.10%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
ARO	0.63%
NFLX	0.50%
TUP	0.43%
MVL	0.40%
BYI	0.39%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
AAN	0.42%
RCII	0.35%
CRI	0.33%
PSS	0.25%
RYL	0.24%

# Russell Sector Characteristics : Consumer Staples

Consumer Staples Large Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	13.03%	\$ 42.37	\$ 83.78	0.62	3.17%	-20.12%
Value	9.39%	\$ 37.48	\$ 67.37	0.70	-0.73%	-22.40%
Growth - Value	3.64%	\$ 4.88	\$ 16.41	-0.08	3.90%	2.28%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
PM	1.68%
PEP	1.52%
WMT	1.47%
CL	0.66%
WAG	0.57%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
PG	1.12%
KFT	0.86%
ADM	0.40%
GIS	0.36%
SWY	0.22%

Consumer Staples Mid Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	4.53%	\$ 37.01	\$ 6.88	0.75	14.00%	-19.25%
Value	8.58%	\$ 28.64	\$ 6.43	0.79	8.59%	-22.67%
Growth - Value	-4.04%	\$ 8.37	\$ 0.45	-0.04	5.40%	3.41%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
AVP	0.76%
CHD	0.30%
ENR	0.26%
HNZ	0.05%
HANS	0.23%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
SWY	0.76%
CAG	0.70%
SLE	0.52%
BG	0.51%
CCE	0.48%

Large cap growth is overweight, but mid and small are underweight.

Shifting from growth to value is a 5% bet against Philip Morris, Pepsi, and Wal-Mart.

Consumer Staples Small Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	3.01%	\$ 31.60	\$ 1.03	0.72	18.69%	4.84%
Value	4.82%	\$ 27.97	\$ 1.22	0.72	8.81%	-1.59%
Growth - Value	-1.81%	\$ 3.64	\$ (0.19)	0.00	9.88%	6.42%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
GMCR	0.34%
LANC	0.24%
CHTT	0.23%
FLO	0.10%
DAR	0.13%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
RAH	0.70%
CASY	0.37%
RDY	0.26%
THS	0.23%
UVV	0.21%

# Russell Sector Characteristics : Energy

Energy Large Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	8.02%	\$ 44.03	\$ 75.93	1.25	7.45%	-43.28%
Value	16.51%	\$ 55.89	\$ 172.13	1.02	-5.62%	-35.05%
Growth - Value	-8.49%	\$ (11.85)	\$ (96.21)	0.23	13.07%	-8.22%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
SLB	1.29%
OXY	1.02%
HAL	0.39%
HES	0.34%
NOV	0.28%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
XOM	5.39%
CVX	3.41%
COP	1.58%
APA	0.61%
DVN	0.58%

Shifting to value is a significant bet on Exxon, Chevron, and Conoco Phillips.

Energy Mid Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	8.41%	\$ 30.52	\$ 5.53	1.40	13.43%	-44.81%
Value	5.62%	\$ 26.10	\$ 4.83	1.42	17.36%	-46.99%
Growth - Value	2.79%	\$ 4.42	\$ 0.70	-0.03	-3.93%	2.18%

Different bets on energy depending on market cap. Large value is overweight, but mid and small value are both underweight.

5 Largest Growth Overweights	
Ticker	Overweight versus Value
SWN	0.96%
MUR	0.71%
RRC	0.48%
CNX	0.45%
SII	0.44%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
SE	0.80%
NBL	0.75%
NFX	0.36%
BJS	0.36%
HP	0.28%

Energy Small Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	6.17%	\$ 17.64	\$ 0.90	1.53	11.87%	-46.18%
Value	2.61%	\$ 17.21	\$ 0.66	1.51	9.32%	-30.86%
Growth - Value	3.55%	\$ 0.43	\$ 0.24	0.03	2.55%	-15.32%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
CRK	0.43%
XCO	0.43%
CXO	0.42%
ARD	0.30%
DRQ	0.29%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
INT	0.30%
NAT	0.16%
BRS	0.15%
HOS	0.15%
WNR	0.10%

# Russell Sector Characteristics : Financials

Financials Large Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	3.74%	\$ 49.48	\$ 14.92	1.65	29.85%	-38.45%
Value	22.19%	\$ 34.07	\$ 39.97	1.64	18.72%	-38.55%
Growth - Value	-18.45%	\$ 15.41	\$ (25.05)	0.02	11.14%	0.10%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
SCHW	0.38%
AXP	0.37%
AFL	0.30%
SPG	0.26%
TROW	0.22%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
JPM	3.05%
WFC	2.11%
BAC	1.41%
GS	1.13%
USB	0.79%

Relatively large bet on JP Morgan, Wells, Bank of America, Goldman, and U.S. Bancorp.

Financials Mid Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	5.56%	\$ 36.23	\$ 6.04	1.54	22.38%	-33.92%
Value	27.52%	\$ 31.05	\$ 4.69	1.47	13.24%	-33.52%
Growth - Value	-21.96%	\$ 5.18	\$ 1.35	0.06	9.14%	-0.40%

Value indices overweight to financials varies by market cap.

5 Largest Growth Overweights	
Ticker	Overweight versus Value
TROW	0.79%
NTRS	0.75%
ICE	0.49%
AMTD	0.30%
EV	0.22%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
AOC	1.03%
MMC	0.95%
PGR	0.91%
PSA	0.74%
NLY	0.66%

Financials Small Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	5.31%	\$ 31.32	\$ 0.88	1.30	18.82%	-17.74%
Value	35.05%	\$ 19.45	\$ 0.83	1.28	8.40%	-22.07%
Growth - Value	-29.73%	\$ 11.86	\$ 0.05	0.01	10.42%	4.33%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
GHL	0.39%
SKT	0.29%
SBNY	0.21%
OXPS	0.19%
IBKR	0.16%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
O	0.62%
AHL	0.55%
SNH	0.54%
FNFG	0.44%
FMER	0.43%

# Russell Sector Characteristics : Health Care

Health Care Large Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	13.56%	\$ 40.95	\$ 33.88	0.70	-3.65%	-18.76%
Value	13.04%	\$ 34.15	\$ 66.18	0.70	-5.60%	-19.53%
Growth - Value	0.53%	\$ 6.80	\$ (32.30)	0.00	1.95%	0.77%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
ABT	1.42%
GILD	0.93%
SGP	0.82%
MDT	0.79%
BMJ	0.68%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
PFE	2.25%
JNJ	1.86%
WYE	1.41%
AMGN	1.24%
LLY	0.67%

Health Care Mid Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	13.26%	\$ 46.17	\$ 6.55	0.80	9.43%	-19.89%
Value	5.16%	\$ 26.03	\$ 3.95	0.98	10.42%	-26.50%
Growth - Value	8.11%	\$ 20.14	\$ 2.60	-0.18	-0.99%	6.61%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
AGN	1.12%
ESRX	1.06%
STJ	0.89%
LH	0.56%
BCR	0.56%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
FRX	0.48%
CI	0.36%
ABC	0.35%
HSP	0.33%
MYL	0.23%

Large cap indices are evenly weighted but have significant overweights with mid and especially with small cap.

Health Care Small Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	23.33%	\$ 22.12	\$ 1.04	0.88	14.00%	3.97%
Value	4.92%	\$ 16.59	\$ 0.66	0.96	0.35%	-10.27%
Growth - Value	18.41%	\$ 5.54	\$ 0.38	-0.09	13.65%	14.24%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
MYGN	0.95%
ALXN	0.75%
DNDN	0.57%
OSIP	0.53%
MDRX	0.50%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
AGP	0.44%
MGLN	0.30%
HLS	0.23%
CNC	0.18%
AMSG	0.18%

# Russell Sector Characteristics : Industrials

Industrials Large Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	12.72%	\$ 46.53	\$ 19.94	1.14	10.64%	-33.92%
Value	8.43%	\$ 28.08	\$ 61.39	1.33	6.58%	-44.29%
Growth - Value	4.29%	\$ 18.44	\$ (41.44)	-0.18	4.06%	10.38%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
MMM	0.89%
UPS	0.79%
BA	0.66%
EMR	0.59%
LMT	0.57%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
GE	3.32%
GD	0.51%
FDX	0.43%
ITW	0.35%
NOC	0.21%

Shifting to large value in the industrial sector is a bet on larger companies (GE), and beta.

Industrials Mid Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	17.37%	\$ 39.18	\$ 5.04	1.20	14.65%	-32.85%
Value	7.40%	\$ 27.48	\$ 3.84	1.33	15.56%	-36.63%
Growth - Value	9.97%	\$ 11.70	\$ 1.20	-0.14	-0.91%	3.78%

Mid cap growth has 10% more in industrials.

5 Largest Growth Overweights	
Ticker	Overweight versus Value
PCP	0.82%
CHRW	0.71%
PH	0.60%
EXPD	0.58%
CMI	0.54%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
LUV	0.45%
IR	0.40%
CTAS	0.30%
MAS	0.28%
AVY	0.27%

Industrials Small Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	17.75%	\$ 23.88	\$ 0.90	1.22	13.65%	-23.10%
Value	14.35%	\$ 25.55	\$ 0.71	1.29	12.93%	-22.38%
Growth - Value	3.41%	\$ (1.67)	\$ 0.19	-0.07	0.71%	-0.73%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
WCN	0.57%
TTEK	0.40%
WAB	0.38%
NDSN	0.34%
TDG	0.32%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
RBC	0.36%
GVA	0.36%
BEZ	0.29%
BRC	0.29%
MOG.A	0.25%

# Russell Sector Characteristics : Information Technology

Information Technology Large Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	31.84%	\$ 65.30	\$ 82.49	0.86	22.40%	-23.88%
Value	3.53%	\$ 15.46	\$ 14.26	1.09	25.58%	-26.19%
Growth - Value	28.32%	\$ 49.84	\$ 68.22	-0.23	-3.18%	2.31%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
MSFT	3.58%
IBM	3.12%
CSCO	2.51%
AAPL	2.44%
GOOG	2.07%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
SYMC	0.36%
MOT	0.31%
TEL	0.21%
JAVA	0.17%
CSC	0.14%

Large growth is a significant bet on Microsoft, IBM, Cisco, Apple, and Google.

Information Technology Mid Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	20.79%	\$ 23.57	\$ 5.46	1.00	26.73%	-26.21%
Value	7.54%	\$ 16.63	\$ 3.63	1.10	29.39%	-26.30%
Growth - Value	13.25%	\$ 6.94	\$ 1.83	-0.10	-2.66%	0.09%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
BRCM	0.94%
JNPR	0.89%
PAYX	0.69%
INTU	0.58%
CTSH	0.56%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
JAVA	0.59%
CSC	0.49%
XRX	0.48%
SNPS	0.27%
MU	0.25%

Different degrees of tech overweight depending on market cap.

Information Technology Small Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	24.31%	\$ 17.48	\$ 0.87	1.00	32.11%	-15.70%
Value	13.06%	\$ 12.76	\$ 0.76	1.11	31.95%	-18.00%
Growth - Value	11.24%	\$ 4.73	\$ 0.11	-0.11	0.17%	2.29%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
SY	0.51%
MCRS	0.47%
VPRT	0.42%
DRIV	0.39%
INFA	0.39%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
COMS	0.45%
MVSN	0.39%
ARRS	0.36%
PER	0.33%
TIBX	0.30%

# Russell Sector Characteristics : Materials

Materials Large Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	3.95%	\$ 55.44	\$ 20.98	1.08	19.04%	-29.53%
Value	3.68%	\$ 29.89	\$ 10.89	1.41	31.95%	-41.34%
Growth - Value	0.27%	\$ 25.55	\$ 10.09	-0.33	-12.91%	11.82%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
MON	1.03%
PX	0.51%
NEM	0.42%
APD	0.31%
ECL	0.15%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
DD	0.63%
FCX	0.44%
DOW	0.37%
NUE	0.19%
WY	0.19%

Value has outperformed.

Materials Mid Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	4.18%	\$ 36.96	\$ 3.85	1.26	29.55%	-31.69%
Value	6.80%	\$ 29.44	\$ 3.83	1.38	28.78%	-32.99%
Growth - Value	-2.62%	\$ 7.52	\$ 0.02	-0.12	0.77%	1.30%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
ECL	0.53%
ARG	0.28%
CCK	0.28%
CF	0.27%
ATI	0.26%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
WY	0.65%
PPG	0.50%
IP	0.47%
VMC	0.46%
SEE	0.27%

Materials Small Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	2.81%	\$ 26.84	\$ 0.76	1.32	28.26%	-23.40%
Value	4.84%	\$ 20.04	\$ 0.82	1.32	21.37%	-30.17%
Growth - Value	-2.02%	\$ 6.80	\$ (0.06)	0.00	6.90%	6.77%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
CCC	0.25%
NEU	0.23%
TXI	0.21%
BCPC	0.12%
DEL	0.12%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
SXT	0.31%
RGLD	0.29%
OLN	0.26%
FUL	0.23%
OMG	0.23%

# Russell Sector Characteristics : Telecomm Services

Telecommunication Services Large Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	0.78%	\$ 22.72	\$ 7.31	1.09	9.50%	-27.60%
Value	6.79%	\$ 25.89	\$ 112.78	0.78	8.72%	-25.68%
Growth - Value	-6.01%	\$ (3.18)	\$ (105.46)	0.30	0.79%	-1.92%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
AMT	0.28%
PCS	0.09%
SBAC	0.06%
NIHD	0.06%
LVLT	0.04%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
T	3.80%
VZ	2.16%
S	0.30%
CCI	0.11%
CTL	0.07%

6% bet on AT&T and Verizon.

Telecommunication Services Mid Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	2.79%	\$ 22.71	\$ 7.31	1.09	9.50%	-27.60%
Value	1.87%	\$ 22.02	\$ 4.76	1.03	12.64%	-23.24%
Growth - Value	0.92%	\$ 0.69	\$ 2.55	0.05	-3.14%	-4.36%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
AMT	0.99%
PCS	0.33%
SBAC	0.23%
NIHD	0.21%
LVLT	0.14%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
CCI	0.37%
CTL	0.24%
LEAP	0.14%
FTR	0.12%
TDS	0.05%

Large value has an overweight while mid and small are underweight.

Telecommunication Services Small Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	1.54%	\$ 12.95	\$ 0.78	1.05	23.55%	-18.25%
Value	0.96%	\$ 8.96	\$ 0.50	1.16	37.77%	-21.56%
Growth - Value	0.58%	\$ 3.99	\$ 0.27	-0.11	-14.21%	3.31%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
TWTC	0.28%
CBEY	0.13%
NTLS	0.13%
TNDM	0.13%
PGI	0.13%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
CBB	0.18%
GNCMA	0.10%
IWA	0.09%
USMO	0.06%
ATNI	0.06%

# Russell Sector Characteristics : Utilities

Utilities Large Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	1.75%	\$ 33.15	\$ 13.16	0.87	-8.77%	-43.37%
Value	6.72%	\$ 31.32	\$ 12.32	0.71	-8.25%	-24.74%
Growth - Value	-4.97%	\$ 1.83	\$ 0.83	0.16	-0.52%	-18.63%

5 Largest Growth Overweights	
Ticker	Overweight versus Value
PEG	0.33%
PPL	0.25%
AES	0.10%
ETR	0.10%
EQT	0.10%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
SO	0.55%
FPL	0.55%
DUK	0.44%
D	0.43%
PCG	0.33%

Utilities Mid Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	3.16%	\$ 22.63	\$ 6.16	1.03	-7.27%	-48.68%
Value	13.94%	\$ 27.68	\$ 6.68	0.75	-7.77%	-23.41%
Growth - Value	-10.77%	\$ (5.05)	\$ (0.52)	0.27	0.50%	-25.27%

Nearly 14% of the mid cap value index is in utilities.

5 Largest Growth Overweights	
Ticker	Overweight versus Value
PPL	0.88%
AES	0.37%
EQT	0.35%
AYE	0.34%
CEG	0.31%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
PCG	1.16%
SRE	1.01%
AEP	0.93%
ED	0.89%
PGN	0.83%

Mid cap has a 5% bet on PG&E, Sempra, AEP, Con Ed, and Progress Energy.

Utilities Small Cap	Index Weight	Average Price	Average Cap (B\$)	Average Beta	Average Last 3 Month Return	Average Last 12 Month Return
Growth	0.86%	\$ 38.12	\$ 1.83	0.75	6.22%	-25.11%
Value	7.08%	\$ 25.79	\$ 1.10	0.65	-9.90%	-12.20%
Growth - Value	-6.22%	\$ 12.33	\$ 0.72	0.10	16.12%	-12.91%

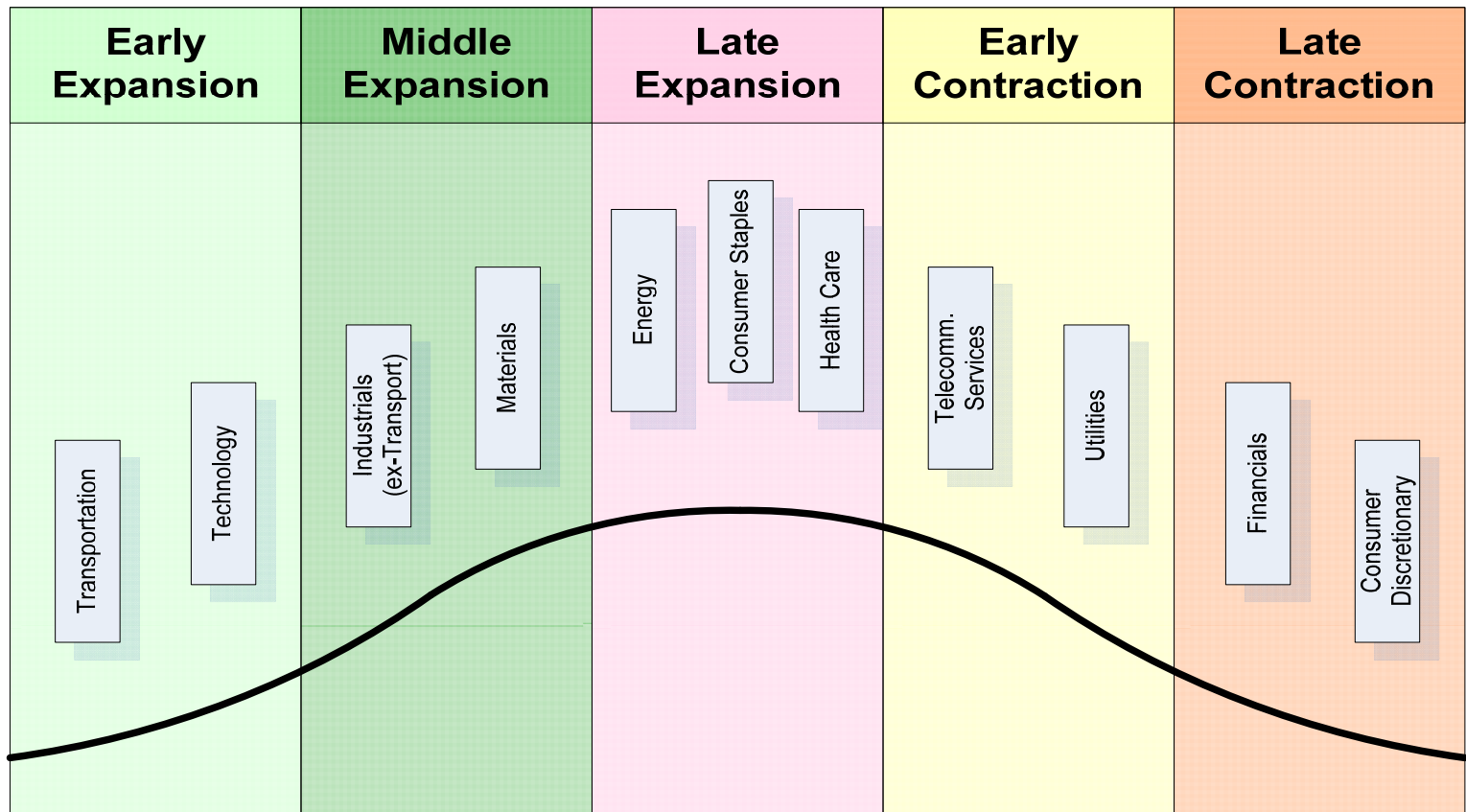
5 Largest Growth Overweights	
Ticker	Overweight versus Value
ITC	0.59%
ORA	0.17%
CWCO	0.05%
CDZI	0.02%
HTM	0.01%

5 Largest Value Overweights	
Ticker	Overweight versus Growth
WR	0.50%
PNY	0.49%
WGL	0.42%
GAS	0.40%
NJR	0.38%

# Economic Cycles, Sector Rotation, and Indices

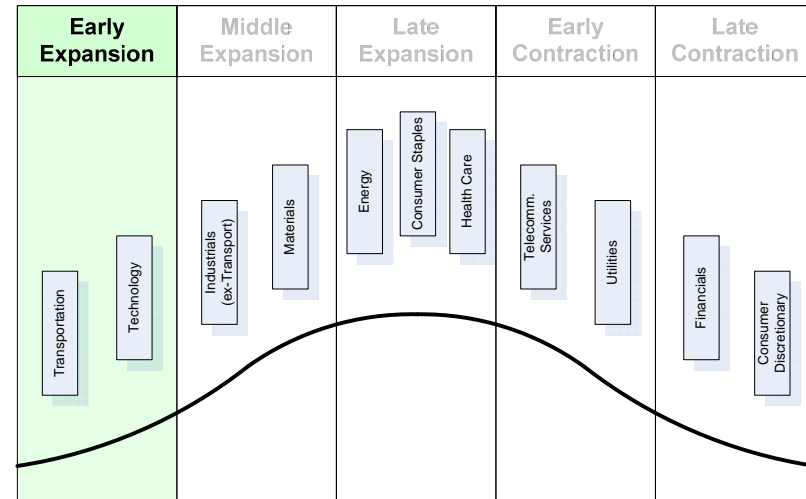
# Business Cycle and Sector Rotation : Russell Indices

- › Textbook depiction of which sectors typically outperform within each state of an economic cycle.
- › The stocks within these industries will anticipate changes in the economic cycle, and may lead relative revenue and earnings improvements.



# Business Cycle and Sector Rotation : Russell Indices Early Expansion Phase

- › In the early expansion phase of the economic cycle, companies in the transportation and tech industries are expected to have the best business prospects.
- › The growth indices typically have more exposure to these industries versus the value indices.

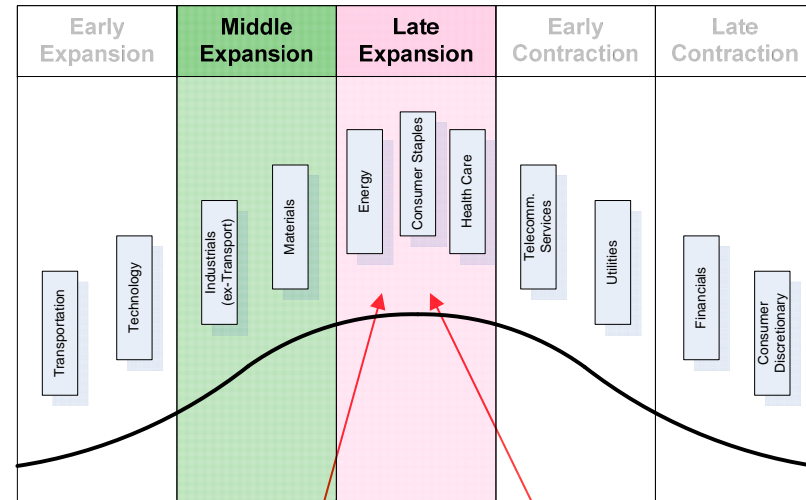


Large Cap has nearly 30% more in tech and transportation stocks versus value.

Early Expansion : Stage I		Russell Large Cap			Russell Mid Cap			Russell Small Cap		
Sectors	Industries	Growth	Value	Grw-Val	Growth	Value	Grw-Val	Growth	Value	Grw-Val
Industrials	Transportation	2.73%	1.07%	1.66%	2.18%	1.39%	0.79%	1.82%	2.24%	-0.42%
Information Technology	Semiconductors & Semiconductor Equipment	4.35%	0.64%	3.71%	6.18%	1.18%	5.00%	4.28%	2.62%	1.66%
Information Technology	Software & Services	13.09%	1.17%	11.92%	9.30%	2.82%	6.48%	13.77%	4.33%	9.44%
Information Technology	Technology Hardware & Equipment	14.40%	1.72%	12.68%	5.28%	3.54%	1.74%	6.29%	6.11%	0.18%
<b>Growth Better Allocated For Large, Mid, and Small.</b>		<b>34.57%</b>	<b>4.59%</b>	<b>29.98%</b>	<b>22.93%</b>	<b>8.93%</b>	<b>14.01%</b>	<b>26.17%</b>	<b>15.31%</b>	<b>10.86%</b>

# Business Cycle and Sector Rotation : Russell Indices

- › Except for small cap growth, the sector differences between growth and value in the middle to late expansion phases are relatively small.
- › During the late expansion phase, the small cap growth index has relative overweight of 20% to the three sectors best positioned to outperform (with health care contributing the bulk).
- › The relative underweight of the large cap growth index in the Energy sector is meaningful in the late expansion phase.



Mid Expansion : Stage II	
Sectors	Industries
Industrials	Capital Goods
Industrials	Commercial & Professional Services
Materials	Materials
Growth Better Allocated For Large, Mid, and Small.	

Russell Large Cap		
Growth	Value	Grw-Val
9.05%	6.63%	2.42%
0.94%	0.73%	0.20%
3.95%	3.68%	0.27%
<b>13.94%</b>	<b>11.04%</b>	<b>2.90%</b>

Russell Mid Cap		
Growth	Value	Grw-Val
2.13%	4.26%	7.87%
3.04%	1.75%	1.29%
4.18%	6.80%	-2.62%
<b>19.35%</b>	<b>12.81%</b>	<b>6.54%</b>

Russell Small Cap		
Growth	Value	Grw-Val
10.52%	8.75%	1.77%
5.41%	3.36%	2.05%
2.81%	4.84%	-2.03%
<b>18.74%</b>	<b>16.94%</b>	<b>1.79%</b>

Late Expansion : Stage III	
Sectors	Industries
Consumer Staples	Food & Staples Retailing
Consumer Staples	Food Beverage & Tobacco
Consumer Staples	Household & Personal Products
Energy	Energy
Health Care	Health Care Equipment & Services
Health Care	Pharmaceuticals Biotechnology & Life Sciences
Growth Better Allocated For Mid and Small. Value For Large.	

Russell Large Cap		
Growth	Value	Grw-Val
4.16%	1.69%	2.48%
6.15%	4.86%	1.29%
2.63%	2.84%	-0.22%
8.04%	16.51%	-8.47%
5.83%	2.99%	2.84%
7.75%	10.04%	-2.29%
<b>34.55%</b>	<b>38.94%</b>	<b>-4.38%</b>

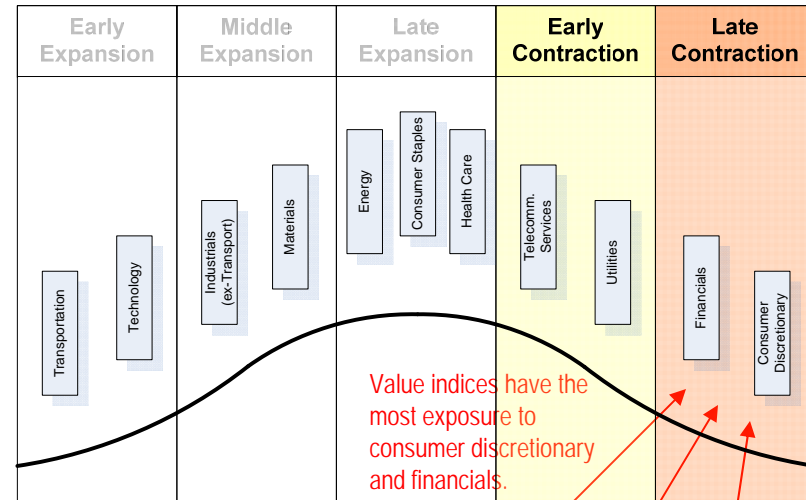
Russell Mid Cap		
Growth	Value	Grw-Val
0.23%	1.28%	-1.05%
2.31%	6.59%	-4.28%
2.00%	0.71%	1.28%
8.47%	5.62%	2.84%
8.34%	3.63%	4.71%
4.94%	1.52%	3.42%
<b>26.28%</b>	<b>19.36%</b>	<b>6.93%</b>

Russell Small Cap		
Growth	Value	Grw-Val
0.37%	1.59%	-1.23%
2.08%	2.76%	-0.68%
0.57%	0.47%	0.09%
6.16%	2.61%	3.55%
10.52%	3.78%	6.75%
12.81%	1.14%	11.67%
<b>32.51%</b>	<b>12.35%</b>	<b>20.15%</b>

Source: Barra, Russell

# Business Cycle and Sector Rotation : Russell Indices

- › Value indices have more prominent over-weights in the contraction phases.
- › In the late contraction phase, companies in the consumer discretionary and financial sectors are expected to have the best-positioned businesses.
- › The value indices have a 17.5% to 27.1% overweight to these two sectors.



Early Contraction : Stage IV		Russell Large Cap			Russell Mid Cap			Russell Small Cap		
Sectors	Industries	Growth	Value	Grw-Val	Growth	Value	Grw-Val	Growth	Value	Grw-Val
Telecommunication Services	Telecommunication Services	0.78%	6.79%	-6.01%	2.79%	1.87%	0.92%	1.54%	0.95%	0.58%
Utilities	Utilities	1.75%	6.72%	-4.97%	3.16%	13.94%	-10.77%	0.86%	7.08%	-6.22%
Value Better Allocated For Large, Mid, and Small.		2.53%	13.51%	-10.97%	5.95%	15.80%	-9.85%	2.40%	8.03%	-5.63%
Late Contraction : Stage V		Russell Large Cap			Russell Mid Cap			Russell Small Cap		
Sectors	Industries	Growth	Value	Grw-Val	Growth	Value	Grw-Val	Growth	Value	Grw-Val
Consumer Discretionary	Automobiles & Components	0.31%	0.73%	-0.42%	0.98%	1.74%	-0.76%	0.36%	0.58%	-0.23%
Consumer Discretionary	Consumer Durables & Apparel	0.84%	1.42%	-0.58%	1.54%	4.99%	-3.45%	3.30%	3.43%	-0.13%
Consumer Discretionary	Consumer Services	3.28%	0.61%	2.67%	7.11%	0.84%	6.27%	6.00%	2.40%	3.60%
Consumer Discretionary	Media	2.19%	3.56%	-1.37%	2.57%	2.93%	-0.36%	1.21%	0.94%	0.27%
Consumer Discretionary	Retailing	3.98%	3.41%	0.56%	7.72%	5.08%	2.64%	4.00%	4.96%	-0.96%
Financials	Banks	0.07%	5.31%	-5.24%	0.20%	5.35%	-5.15%	0.93%	14.43%	-13.50%
Financials	Diversified Financials	2.72%	9.23%	-6.50%	4.07%	3.35%	0.72%	2.23%	3.58%	-1.35%
Financials	Insurance	0.39%	5.19%	-4.80%	0.14%	10.17%	-10.03%	0.45%	7.20%	-6.75%
Financials	Real Estate	0.61%	2.46%	-1.85%	1.15%	8.66%	-7.51%	1.71%	9.84%	-8.13%
Value Better Allocated For Large, Mid, and Small.		14.40%	31.93%	-17.52%	25.48%	43.10%	-17.62%	20.19%	47.36%	-27.17%

Source: Barra, Russell

## Summary of Major Findings

# Summary of Major Findings

The decision to tilt a portfolio towards value or growth equity styles is a very complex one. First, growth and value aren't defined the same by S&P and Russell; therefore, selecting a passive fund or active manager that is benchmarked to a Russell or S&P index has significant implications on a portfolio's bet towards certain sectors, in particular the energy sector. Secondly, the make-up of the growth and value indices have changed considerably since the collapse of the financial sector and the market peak back in October 2007. Across both large cap value and growth indices, the allocations towards financials are substantially less. Also, there are major differences in sector exposure across the market caps within the growth and value styles. Therefore, investors take different degrees of bets on particular sectors when moving from large growth to value versus small growth to value. The Russell large-cap value and growth indices are much more concentrated in a relatively short list of stocks. With Exxon Mobil making up 6.75% of the Russell large value index, the index's top 10 holdings make up 31% of the overall index.

Finally, using macroeconomic indicators to guide portfolio shifts in growth to value equity styles across large, mid, and small capitalizations is extremely complex. These active portfolio management decisions are based on two very important assumptions: (1) stock markets correctly anticipate changes in the economic cycle, and (2) investors can correctly identify what phase the economy is currently in. Likewise, the textbook depictions of what industries are likely to deliver better operating results may not translate into immediate stock-price out-performance. Given the significant weighting differences between tech and financials, shifting from growth to value has its biggest implications on portfolio performance around major turning points in the economic cycle. Portfolio management skill is required to correctly identify turning points in the economic cycle and to time the overweight to those sectors that will benefit in the future.

What is the difference between Russell and S&P growth/value indices?

- › The Russell 1000 Growth index has an 8.0% energy weighting, while the S&P growth index has nearly 21% invested in energy. Holding all else constant, if energy outperforms then:
  - S&P 500 Growth would outperform S&P 500 Value
  - Russell 1000 Value would outperform Russell 1000 Growth

Have the sector allocations changed considerably since the October 2007 market peak?

- › Yes, the weighting towards financials has been cut in half to one third for the large cap growth and value indices. The large cap growth indices now have an even higher weighting towards tech and the value indices have a higher weighting in healthcare.

# Summary of Major Findings

Are the sector allocations across industries the same for large, mid, and small cap indices?

- › No, there are major differences particularly with tech, healthcare, financials and energy. In addition, investors are taking different percentage sector bets when moving from large growth to value versus small growth to value.
- › Tech exposure in the growth indices ranges from 20% to 32%, and healthcare ranges from 13% to 23%
- › Financial exposure in the value indices ranges from 22% up to 35%, and energy ranges from 3% to 16%.

What company bets are being made when shifting from growth to value?

- › The large cap growth and value indices are much more concentrated in particular stocks than the more diverse mid-cap, and small-cap indices.
- › 6.75% of the Russell large value index is in one stock: Exxon Mobil.
- › The top 10 names account for 31% of the Russell large value index

What indices are best exposed to industries that have performed well in an economic expansion?

- › In the early part of an economic expansion, Russell large growth has nearly 30% more than large value in the sectors that typically outperform.
- › During the middle to late expansion economic phases, the exposure differences between value and growth in the favored sectors is minor with the exception of small cap growth which is better positioned late in the cycle.
- › The value indices across large, mid, and small are better allocated for late economic contraction periods.

## Endnotes

1. Mary Fjelstad, and Dave Hintz, CFA, Russell Investments, "Surviving U.S. Recessions with Style", May 2009
2. Yuhang Xing and Lu Zhang, "Value Versus Growth: Movements in Economic Fundamentals", August 2004
3. [www.russell.com](http://www.russell.com)
4. [www.standardandpoors.com](http://www.standardandpoors.com)

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