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WHAT'S VALUE GOT TO DO WITH IT?

Q1 Quantitative Market Update

- *U.S. stocks notched their biggest quarterly gains in nearly a decade as Information Technology and Industrials led the way. This was in stark contrast to the brutal sell-off in Q4.*
- *During this V-shaped rally, high-growth and risky names did very well while cheap stocks were left behind once again.*

Market Commentary

Time is the best medicine, isn't it?

Over the last six months, global equity markets swung from one of the worst quarters to one of the best in the past 10 years. Although most of the global equity rally came in January, positive performance extended through February and March. By the end of March, major indices had recouped the bulk of the losses they suffered in the final months of 2018, when fears about a worldwide economic downturn sent markets sliding (Exhibit 1).

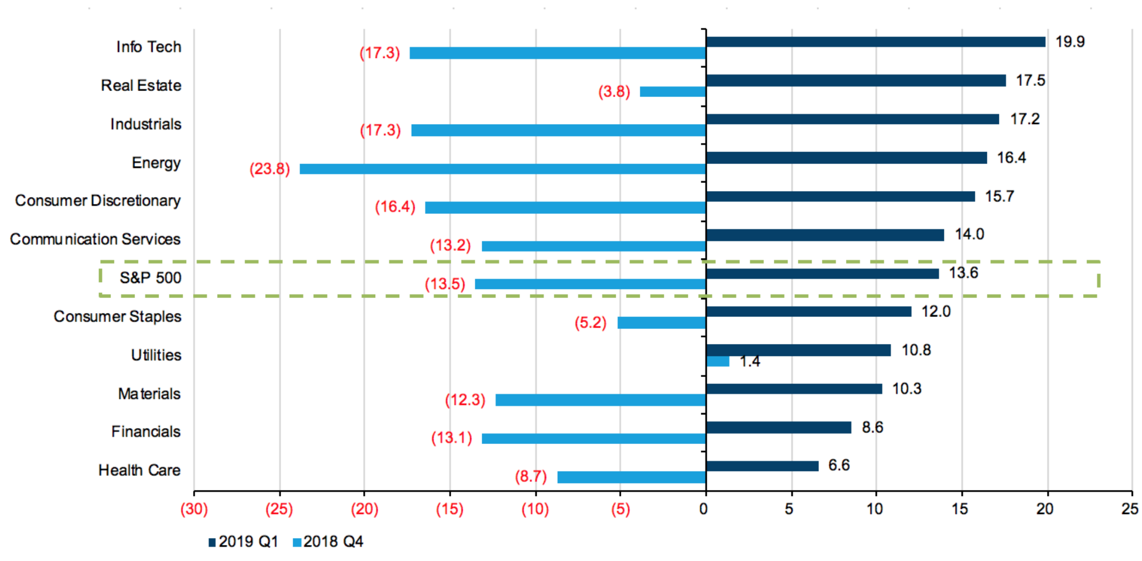
Exhibit 1: Major Stock Indices' Returns

Index	Mar 2019	2019 Q1	Since 9.30.18
S&P 500	1.9	13.6	(1.7)
Dow Jones Industrial Average	0.2	11.8	(0.8)
NASDAQ Composite Index	2.7	16.8	(3.4)
Russell 1000	1.7	14.0	(1.8)
Russell 1000 Value	0.6	11.9	(1.2)
Russell 1000 Growth	2.8	16.1	(2.3)
Russell Mid-cap	0.9	16.5	(1.4)
Russell Mid-cap Value	0.5	14.4	(2.7)
Russell Mid-cap Growth	1.3	19.6	0.5
Russell 2000	(2.1)	14.6	(8.6)
Russell 2000 Value	(2.9)	11.9	(9.0)
Russell 2000 Growth	(1.4)	17.1	(8.2)
MSCI EAFE	0.6	10.0	(3.8)
MSCI Europe	2.0	12.8	0.1
MSCI Asia Pacific	1.2	9.6	(2.4)
MSCI Emerging Markets	0.8	9.9	1.7

Source: Bloomberg; all returns are in U.S. dollars

For the quarter, the S&P 500 index outperformed both the MSCI EAFE index and the MSCI Emerging Markets index with a 13.6% gain. Within emerging markets, China was the standout, as the CSI 300 Index rallied 29%. At the sector level, relative performance was largely a reversal of the prior quarter: Information Technology and Industrials were among the top performers, while Health Care was at the bottom (Exhibit 2). Real Estate was the sole exception, outperforming the overall market during both periods.

Exhibit 2: S&P 500 Sector Quarterly Returns – 2019 Q1 vs. 2018 Q4

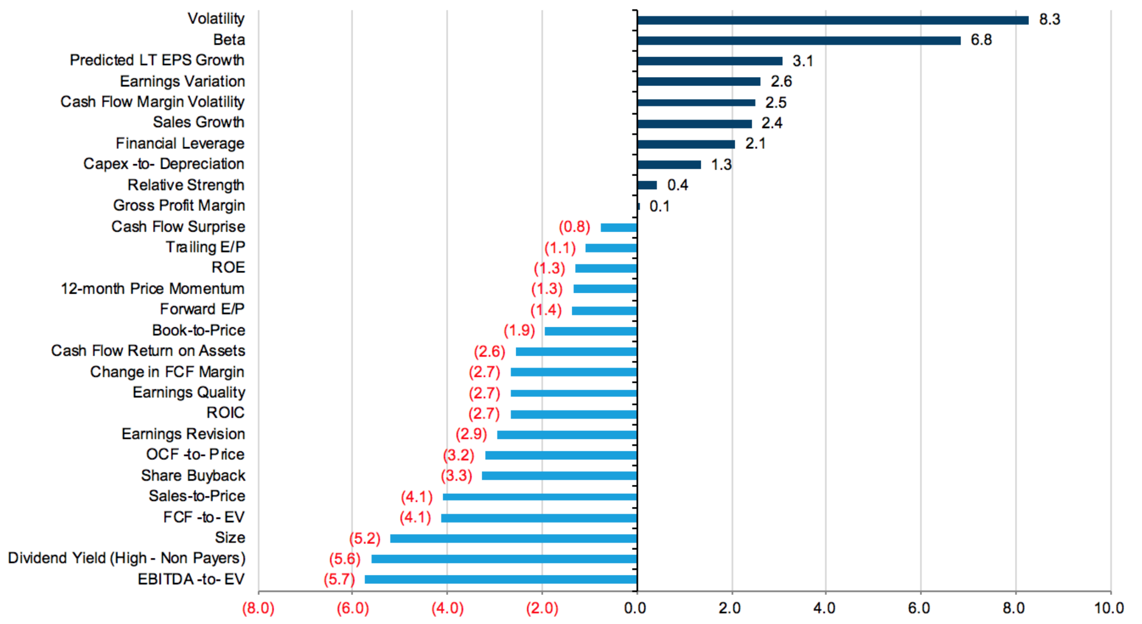


Source: Bloomberg.

The about-face by the European Central Bank (ECB), the Federal Reserve (Fed) and the People's Bank of China has helped fuel the market rally in 2019, thus far. In early March, the ECB launched a new economic rescue package, citing a darkening global economic growth outlook. The move came less than three months after the bank said that the 19-nation eurozone economy no longer needed unusual help, capping more than a decade-long $3 trillion stimulus following the global financial crisis. The ECB also said it would hold interest rates at sub-zero levels at least through December—months longer than it had previously signaled. These accommodative monetary policies from central banks, as well as investors' own concerns over slowing economic growth, pushed down bond yields. On March 22, the yield on the benchmark 10-year Treasury note fell to 2.42%, dropping below rates on the 3-month T-bill for the first time since July 2007; additionally, the yield on the 10-year German bund recently dropped below zero. These low rates helped propel Real Estate and Utilities, generally regarded as bond proxies, to outperform Financials this quarter.

On the style front, the first quarter had a dispiritingly familiar feel for "value" investors: all sorts of value strategies underperformed. At the same time high-growth and high-volatility strategies did well during the market's V-shaped recovery (Exhibit 3).

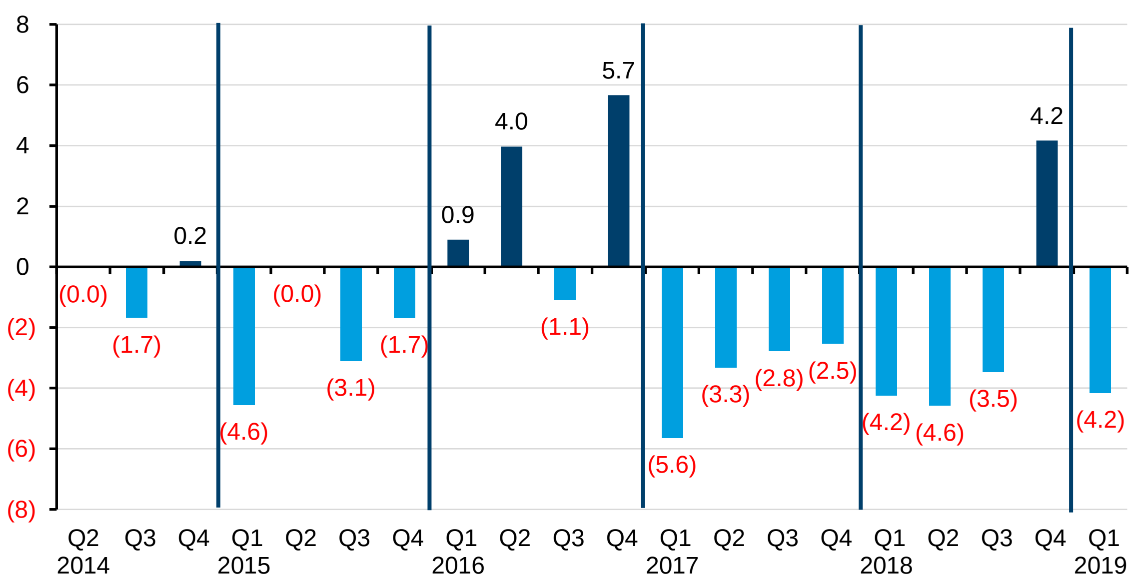
Exhibit 3: Factor Quantile Spreads (Top 20% minus Bottom 20%) within Russell 1000 Universe Q1 2019



Source: Columbia Threadneedle Investments; sector neutral; square root market value weighted; monthly rebalancing

The relative performance of the Russell 1000 Value index versus the Russell 1000 Growth index in recent years highlights value's ongoing struggle. Since the start of 2017, value underperformed growth in seven consecutive quarters before value investors got a brief respite in the fourth quarter of 2018, when value outperformed growth during the market's brutal sell-off (Exhibit 4).

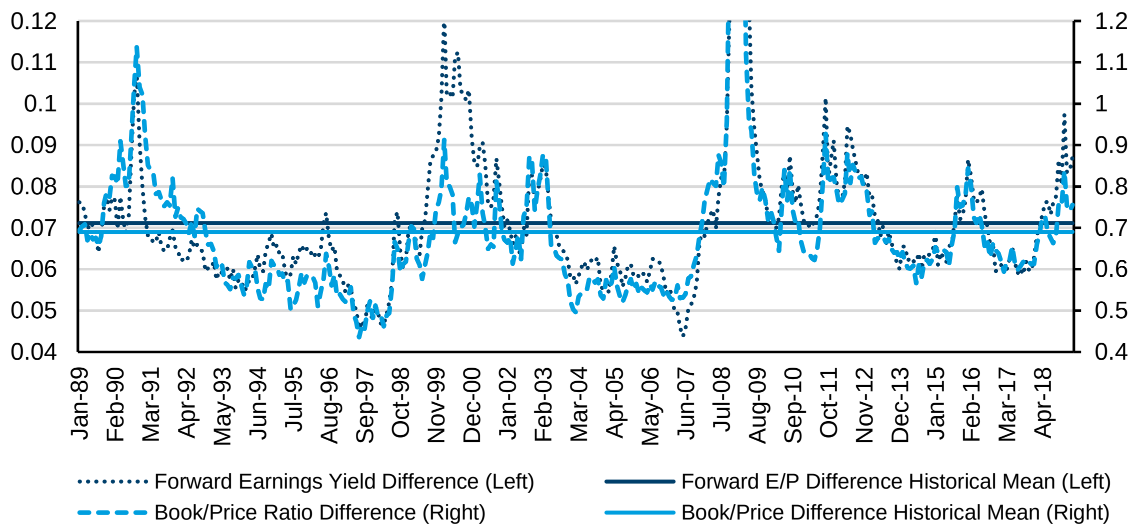
Exhibit 4: Quarterly Return Difference between Russell 1000 Value and Russell 1000 Growth



Source: Bloomberg

With the ECB's program of quantitative easing having ended in December 2017, coupled with the Fed's then-hawkish posture, the stage looked set for value's resurgence, which has lagged growth 75% of the time over the past decade by an average 5.8% per year. However, subsequent dovish reversals by the Fed and the ECB, quickly put a stop to any momentum value might have had. At quarter-end, at least, macroeconomic conditions no longer appeared to favor value strategies despite value stocks' relative cheapness compared to the past three decades (Exhibit 5). If history is any guide, value stocks should still pick up at some point as the valuation gap between cheap and expensive stocks narrows. If we have learned anything, it is that trends can extend well beyond rationalization, until the numbers finally engage.

Exhibit 5: Differences in the Valuation Ratios between Cheap Stocks and Most Expensive Stocks



Source: Columbia Threadneedle Investments. Note: *Russell 1000 universe; Cheap stocks - median ratios for top 20% stocks ranked within each sector; expensive stocks: median ratios for bottom 20% stocks ranked in each sector; Forward E/P – Forecasted forward 12-month earnings divided by stock month-end close price; Book/Price – Reported Common Book Equity per share divided by stock month-end close price.*

Should investors continue to be extremely patient and wait for the eventual comeback of value strategies or can they meet the challenge head-on? With these questions in mind, we examined a list of common value investment signals and reported their performance statistics in Exhibit 6. Our experience and research have shown that value is not simply low price/earnings and the observation of "value" performance should not be limited to style indices. Investment managers will use a number of different ways to determine value, both on an absolute and a relative basis, with a wide range of outcomes. The spreads for the 10 signals range from -35.8% to 27.4% over the 2010–2019 study period. Among them, free cash-flow/economic value was the most dependable metric to differentiate potential winners from losers. On the other end of the spectrum, book/price—especially forecasted—generated huge losses.

Exhibit 6: Yearly Factor Quantile Spreads (Top 20% minus Bottom 20%)

	Reported						Forecasted			
Calendar Year	Book/Price	Sales/Price	Earnings Yield	EBITDA/EV	OCF/Price	FCF/EV	Book/Price	Sales/Price	Earnings Yield	EBITDA/EV
2010	2.0	1.0	(6.9)	(3.6)	2.1	(1.3)	(0.0)	2.4	(4.9)	2.1
2011	(1.7)	(6.1)	7.1	4.4	5.2	13.7	(1.8)	(5.8)	4.2	(6.2)
2012	2.0	4.8	(3.0)	0.5	1.9	(1.6)	(0.1)	3.7	(2.2)	(0.6)
2013	4.2	8.1	(1.7)	7.2	5.0	1.2	3.3	6.9	5.6	7.5
2014	(0.0)	4.9	9.1	6.9	10.9	8.3	0.3	4.4	7.1	2.3
2015	(10.4)	(9.9)	(7.9)	(10.1)	(8.0)	0.3	(15.4)	(10.7)	(5.3)	(6.7)
2016	8.0	10.1	10.5	13.1	14.5	4.8	6.7	11.7	5.1	11.7
2017	(9.0)	(8.6)	4.0	(1.2)	(1.4)	4.2	(8.6)	(9.0)	(4.7)	(5.0)
2018	(16.9)	(9.3)	(13.3)	(12.9)	(5.0)	1.6	(18.0)	(8.6)	(15.9)	(4.8)
2019	(3.3)	(5.4)	(5.6)	(5.7)	(3.3)	(3.9)	(2.1)	(7.2)	(4.4)	(7.9)
TOTAL	**(25.2)**	**(10.6)**	**(7.7)**	**(1.5)**	**21.9**	**27.4**	**(35.8)**	**(12.2)**	**(15.5)**	**(7.5)**

Source: Columbia Threadneedle Investments; as of March 31, 2019

Russell 1000 excluding stocks in the financials and real estate sectors; monthly rebalancing sector relative; square root of market value weighted

Indeed, value investing is not as straightforward as it might seem, coming in many different varieties. Identifying and differentiating among styles and managers is essential in a challenging environment.

Factor Descriptions

Name	Description
12-Month Price Momentum	Total returns in the past 12-month
Beta	A stock's sensitivity to market risks
Book to Price	Book Equity / Market Value
Capex to Sales	Capital Expenditure / Total Revenue
Cash Flow Margin Volatility	Standard deviation of cash flow margin in prior 4 years
Cash Flow Return on Assets	Trailing 1-year Free Cash Flow / Total Assets
CFO to Price	Trailing 1-year Operating Cash Flow / Market Value
Divd Yield (High - Non Payers)	Dividend per Share / Price
Earnings Quality	Cash flow conversion of corporate earnings
Earnings to Price	Trailing 1-year Earnings / Price
EBITDA to EV	Trailing 1-year Operating Income / Enterprise Value
FCF to EV	Trailing 1-year Free Cash Flow / Enterprise Value
Fwd Earnings to Price	Forward 12-month Estimated Earnings / Price
Gross Profit Margin	Gross Profit / Total Revenue
Growth	Prospects for earnings and revenue growth
Leverage	Debt level on balance sheet
Relative Strength	Consistency-adjusted stock price movement in prior 12-month
Residual Volatility	Idiosyncratic risk of stock returns
Revisions	Analyst earning estimate revisions
ROE	Trailing 1-year Net Income / Book Equity
ROIC	Trailing 1-year Operating Income / Invested Capital
Sales to Price	Trailing 1-year Revenue / Market Value
Size	Market Value

Past performance does not guarantee future results.

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