

The end of a bull market era

March 2020

Research Signals

Adding to coronavirus fears, a collapse in oil prices last week catapulted market volatility to levels not seen since the financial crisis. We have produced special reports looking at daily factor and style model performance during this market tumult, beginning with the **initial bounce** in volatility at the end of February that subsequently **spilled over** into early March. With key benchmarks continuing to see drastic day-to-day and intraday spikes and drawdowns and as the near 11-year bull market run officially ended in a sharp 16-trading-day sell-off, we extend our performance review into mid-March in the US, as well as month-to-date results from non-US regions.

- High bankruptcy risk and small cap firms continued to lag in US markets last week, while the least shorted shares outperformed low beta stocks
- Our Historical Growth Model continued to outpace other style models since January; however, value models surpassed all other styles as the week progressed
- In Developed Europe and Developed Pacific markets, low beta bested other styles and value continued to suffer, while emerging markets disfavored high risk stocks and highly shorted shares

February and March style model and factor returns

We review daily factor and style model performance through 13 March across a representative group of our 400+ US factor library in addition to our style models – Deep Value, Earnings Momentum, Price Momentum, Historical Growth, Relative Value and Value Momentum Analyst II. Performance is based on daily decile return spreads, where the spread is computed as the difference in the equal-weighted return at the top (decile 1) and bottom (decile 10) tails. The universe is our US Large Cap universe, which consists of approximately 1,000 of the largest cap names.

First, from a factor perspective, we focus our results on several factors of interest covering value, momentum, size, risk and short sentiment signals, namely Book-to-Market, TTM EBITDA-to-Enterprise Value, 3-M Revision in FY2 EPS Forecasts, Industry-adjusted 12-Month Relative Price Strength, Natural Logarithm of Market Capitalization, 60-Month Beta, Altman Z-score and Demand Supply Ratio.

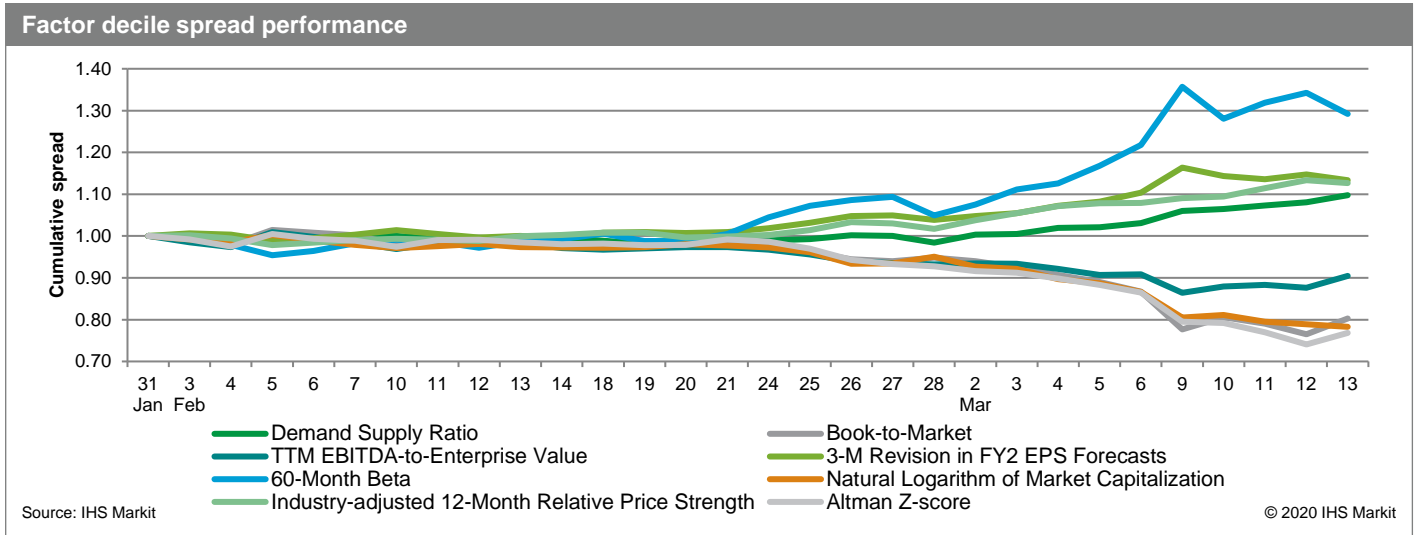
The second week of March (Figure 1) saw a tapering off of some of the prior week's highflyers, including the risk-off trade captured by 60-month Beta and high momentum gauged by Industry-adjusted 12-Month Relative Price Strength and 3-M Revision in FY2 EPS Forecasts. However, Demand Supply Ratio, a measure that favors stocks with low implied short interest, continued its steady run which began in March, returning 11.6% cumulatively since the end of February. The losers in February - Book-to-market, Altman Z-score and Natural Logarithm of Market Capitalization –

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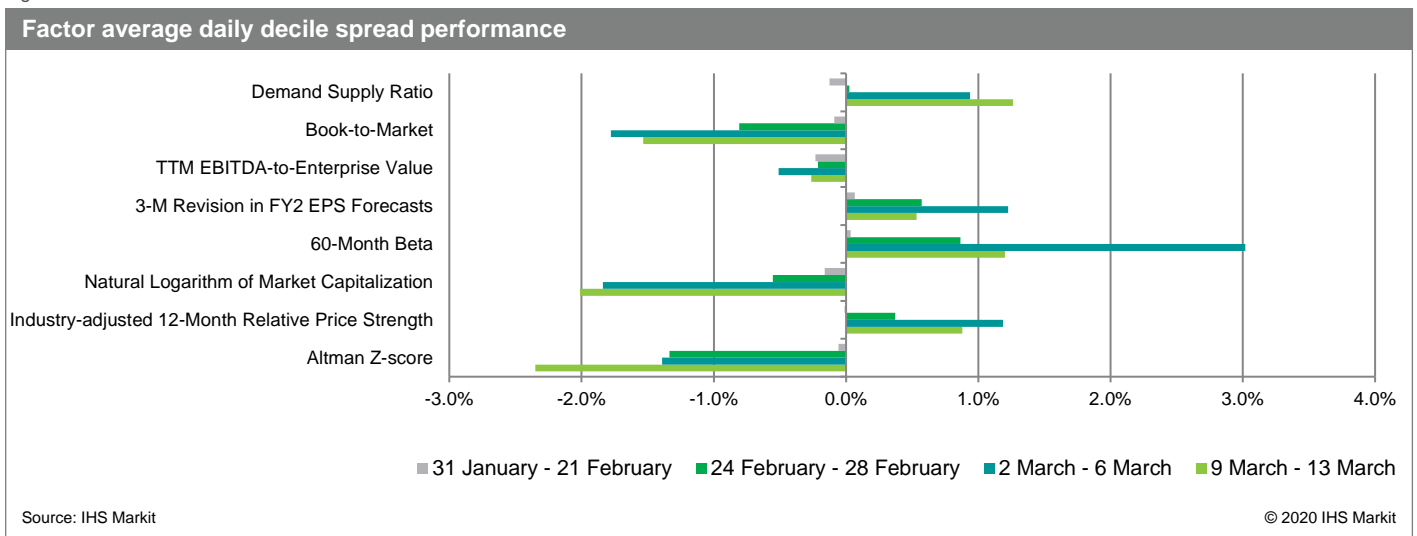
remained deeply in negative territory through mid-March, though the value trade recovered some of its losses to a greater extent on the final trading day last week, returning nearly 5% during the market’s temporary one-day rebound.

Figure 1



For another perspective, we compare average daily decile spreads month-to-date through 21 February with those in the last week of the month and the first two weeks of March (Figure 2) to provide a more focused view of the extreme behavior between the four periods. This perspective more clearly highlights some of the interesting developments we cited above. Investors continued to trade out of high bankruptcy risk names, with Altman Z-score earning a daily average of -2.3% last week, the weakest performer for the week; however, investors turned to the securities lending market for further guidance on top of low beta exposure, with Demand Supply Ratio (1.26%) just outpacing 60-Month Beta’s (1.20%) lowered weekly performance. The shift from value to momentum dissipated somewhat, while small caps continued to suffer, with an additional -2% average daily return compounding their already weakened state.

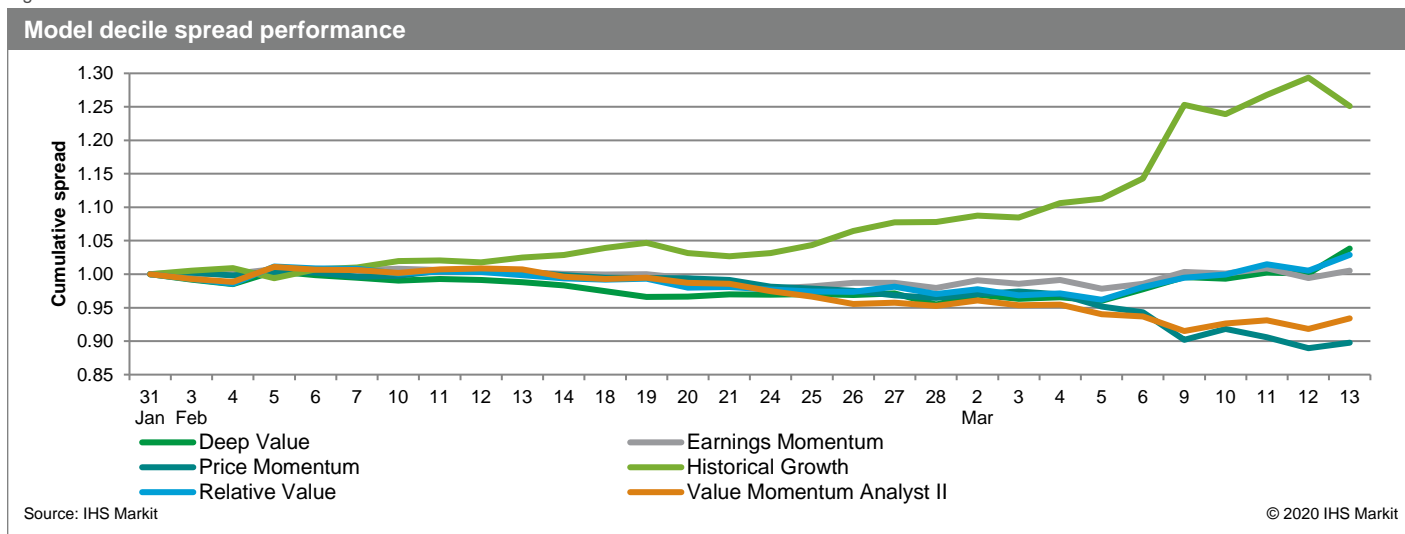
Figure 2



Returns for our style models remained relatively similarly aligned on a cumulative basis from January through the second week of March (Figure 3), yet with some interesting developments underneath. First, while Historical Growth remained in the lead over the full period, its performance was relatively flat for the week. Deep Value and Relative Value, on the other hand, picked up some ground with weekly cumulative returns of 6.2% and 4.9%, respectively,

particularly driven by another Friday bounce in excess of 2%, while Price Momentum extended its losses with an additional 4.8% cumulative loss for the week.

Figure 3



Lastly, to put the factor and model performance results into perspective globally, we look at return spreads and information coefficients for the same set of factors in non-US universes, covering Developed Europe, Developed Pacific, Emerging EMEA and Emerging Asia, for the second week of March. Results for Developed Europe and Developed Pacific saw some similarities and some differences with those seen in the US. A notable difference is that the risk off trade remained a key driver, maintaining 60-Month Beta’s lead over other factors, while Book-to-Market extended its losses, particularly in Europe. At the same time, emerging markets universes moved more in-line with the US, with elevated underperformance associated with Altman Z-Score and Natural Logarithm of Market Capitalization, sending 60-Month Beta to the lead in both regions, and Demand Supply Ratio trailing just behind.

Table 1

Factor/Model	Developed Europe		Developed Pacific		Emerging EMEA		Emerging Asia	
	Return spread	IC	Return spread	IC	Return spread	IC	Return spread	IC
Altman Z Score	-13.08	-0.32	-1.17	-0.11	-4.12	-0.17	-2.68	-0.12
Industry-adjusted 12-Month Relative Price Strength	1.40	0.13	-1.22	-0.04	-0.53	0.01	3.37	0.16
Natural Logarithm of Market Capitalization	-0.78	0.02	-4.69	0.03	-3.21	-0.15	-0.46	0.00
60-Month Beta	12.95	0.33	4.08	0.17	3.78	0.13	6.24	0.28
3-M Revision in FY2 EPS Forecasts	2.77	0.11	3.03	0.13	3.37	0.09	3.39	0.12
TTM EBITDA-to-Enterprise Value	-5.16	-0.21	-0.54	-0.04	-0.80	0.02	-2.91	-0.07
Book-to-Market	-11.47	-0.23	-3.83	-0.18	-1.28	-0.10	-3.20	-0.11
Demand Supply Ratio	3.39	0.09	0.17	0.04	3.56	0.17	2.62	0.18

Source: IHS Markit

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