PORTFOLIO INSIGHTS

Factor Views

Themes from the quarterly Quantitative Beta Research Summit

2Q 2020

IN BRIEF

- Factor performance was negative, on balance, as markets suffered from two major tail events: the economic shocks of the COVID-19 outbreak and a plunge in oil prices.
- Equity factors were mixed; however, the value drawdown is now nearing dot-com bubble territory.
- Event-driven factors were hit hard, suffering from both economic and technical shocks, with the merger arbitrage factor experiencing its sharpest downturn since the global financial crisis.
- Macro factors were upended by spiking volatility and the fastest-forming equity bear market in modern history.
- We believe in diversifying across a broad range of compensated factors while minimizing exposure to uncompensated risks; we see a heightened opportunity set following a particularly difficult quarter.

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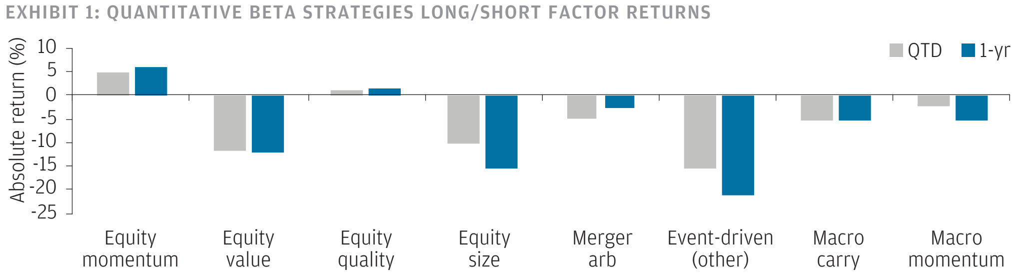
OVERVIEW

Risk assets entered 2020 on the back of one of the strongest years of the record-setting bull market and with most economists calling for continued, albeit slower, economic growth. By late January, COVID-19 had started to create a downdraft in markets; it turned into a complete free fall in February and March. As much of the world's population was locked down to try to reduce the spread of the virus, economies came to a complete standstill. Global central banks quickly enacted dramatic stimulus measures that surpassed even those of the global financial crisis—all in an attempt to resolve liquidity challenges across markets, backstop the record influx of unemployed workers and sustain struggling small businesses until economies could be revived. All in all, it was quite a difficult backdrop for the majority of the factors that we favor (**EXHIBIT 1**).

No one knows the precise path of recovery from the COVID-19 coronavirus outbreak, nor is it easy to forecast from a bottom-up factor perspective. But we do see attractive factor valuations

Factor performance was broadly negative in Q1, with event-driven and macro factors suffering in particular

EXHIBIT 1: QUANTITATIVE BETA STRATEGIES LONG/SHORT FACTOR RETURNS



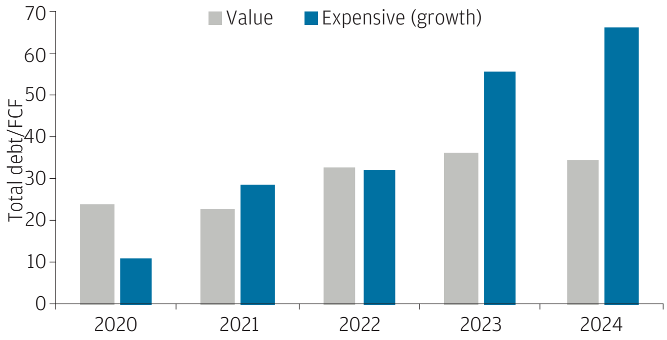
Source: J.P. Morgan Asset Management; data as of March 31, 2020.

Note: Factors presented are long/short in nature. Equity factors represented as 100% long notional exposure, macro factors as aggregation of 5% vol subcomponents. Valuation spread is a z-score between the median P/E ratio of top-quartile stocks and bottom-quartile stocks as ranked by the value factor.

J.P.Morgan Asset Management

On a historical basis, the value factor remains quite cheap and faces a lower refinancing hurdle

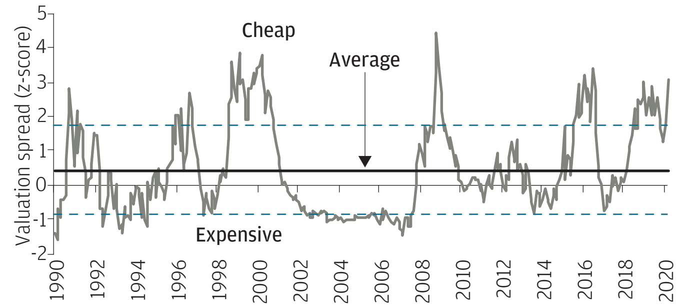
EXHIBIT 2: DEBT DISTRIBUTION (U.S., CASH FLOW > 0)



Source: J.P. Morgan Asset Management; data as of March 31, 2020.

Note: 2% of value companies had negative cash flow vs. 18% of expensive/growth companies. FCF= free cash flow.

EXHIBIT 3: VALUE FACTOR VALUATION SPREAD (GLOBAL)



Source: J.P. Morgan Asset Management; data as of March 31, 2020.

Note: Valuation spread is a z-score between the median P/E ratio of top-quartile stocks and bottom-quartile stocks as ranked by the value factor.

across a range of areas and believe that increased dispersion across company fundamentals will eventually be reflected in market pricing, boosting factor performance, particularly within equity markets. In addition, we would expect factors to resume their role as diversifying sources of returns should markets and economic expectations begin to stabilize and/or move past near-term coronavirus concerns.

FACTORS IN FOCUS

Equity factors: Momentum and quality both resilient, while value plunged

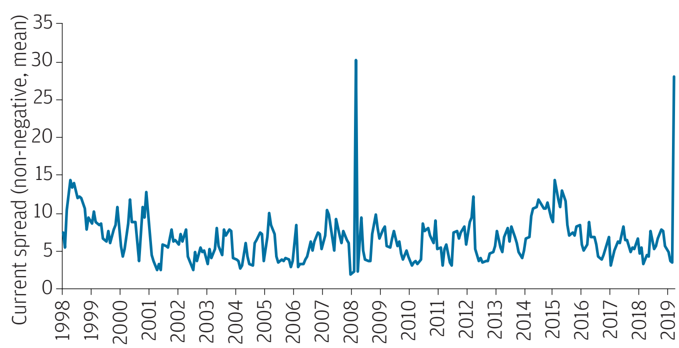
The equity momentum and quality factors were both positive over the quarter, performing especially well in March as investors sought refuge in mega cap growth stocks and high quality businesses, generally favoring names and industries that had already been performing well before the pandemic. Value, on the other hand, fell sharply and experienced its worst quarter ever over the period from 1990–2020. Investors focused on the potentially higher bankruptcy risk for value companies, which tend to have higher short-term debt loads (though they face a less challenging refinancing wall a few years out, as highlighted in **EXHIBIT 2**). The size factor was also battered, falling on fears of liquidity risk and distress risk, as well as a presumption that disruptions sparked by COVID-19 may further a winner-take-all paradigm across global markets.

The magnitude of the value drawdown since the beginning of 2017 is now nearly at dot-com bubble levels (-28% vs. -30%). The pain associated with the current episode has been exacerbated by the drawdown's longevity—with the current downturn now in its 39th month vs. 21 months in the dot-com bubble. As the value factor is now more than 3 standard deviations cheap relative to its long-term history and its spreads near all-time wides (96th percentile), we reaffirm our bullish outlook for value (**EXHIBIT 3**). As we noted last quarter, the value factor's current drawdown is essentially a story of investor preference (even exuberance) for growth companies rather than a reflection of recent trends in net income growth, and we expect market leadership to eventually change.

We see two general paths to recovery for the value factor. The first relates to potential cash flow shocks for expensive/growth companies, as we also highlighted last quarter. While we did not foresee the tumult and economic shock caused by COVID-19 (which has pushed the focus on company financings to the next few months rather than the next few years), we stand by our assertion that value companies may be better positioned for the next turn in the economic cycle, when investors

Merger arbitrage deal spreads nearly reached financial crisis wides in mid-March (3/19/2020)

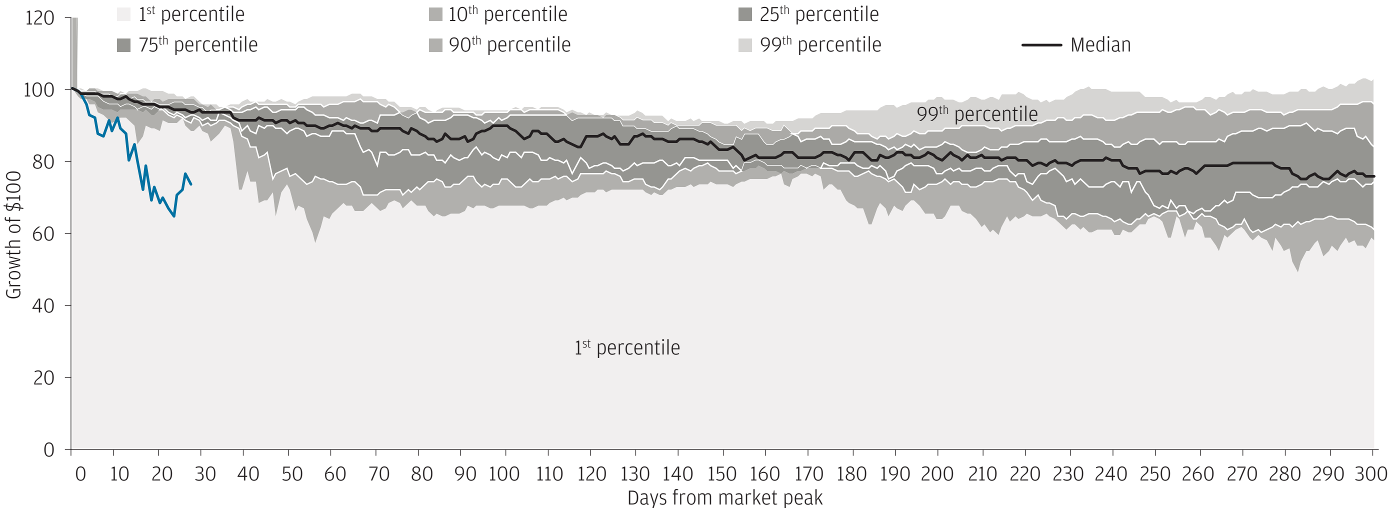
EXHIBIT 4: MERGER ARBITRAGE DEAL SPREADS, 1998–2020



Source: J.P. Morgan Asset Management; data as of March 31, 2020.

U.S. equities have experienced their fastest-forming bear market in the past century

EXHIBIT 5: HISTORICAL U.S. EQUITY BEAR MARKETS (1926–2020)



Source: FactSet, J.P. Morgan Asset Management; data as of March 31, 2020.

question whether expensive/growth companies can buck past trends of mean reversion and grow their way out of potential refinancing issues. The second relates to the potential for markets and the global economy to experience a sharp, V-shaped recovery. If such a recovery was to occur, it could lead to a bounce in the names that were punished the most in Q1 2020. Still, this would likely only bring the value factor back to 2019 levels and would not in itself catalyze a recovery of the full drawdown experienced since 2017.

We also continue to closely watch the quality factor. Last quarter, we highlighted a dislocation between the difference in fundamentals (e.g., profitability or financial leverage) of high quality vs. low quality companies, and the difference in valuations. While these gaps have narrowed somewhat, the quality factor may still play an important role alongside value in multi-factor strategies/approaches, helping to distinguish between companies that are cheap for a reason and those that have simply been left behind by the whims of the market.

Event-driven factors hit hard by both economic shock and technical pressures (forced selling/ capitulation)

Event-driven factors fell across the board in Q1 2020, though the merger arbitrage and share buyback factors were the most afflicted. Merger arbitrage spreads began to widen in February as the rise in economic and market volatility called into question the likelihood that deals would close on previously proposed terms. Toward the middle of March, however, merger arbitrage exposures began to collapse—with spreads growing nearly as wide as they had in the financial crisis as hedge funds de-risked and sought liquidity wherever they could (**EXHIBIT 4**). These dislocated conditions began to abate by the end of the month, with merger arbitrage exposures benefiting from the significant amount of liquidity pumped into the system by central banks. Despite this partial recovery, the factor experienced a negative quarter for the first time since Q1 2018 (which also featured hedge fund deleveraging).

The share buyback factor, on the other hand, fell more consistently over the course of March as markets priced in the cancellation of share buyback programs. Names in the consumer discretionary, financial and energy sectors were particularly hard hit.

We maintain a positive outlook for the merger arbitrage factor, where spreads are still attractive, though we have a more tempered view on other event-driven factors, given expectations for a decline in corporate activity levels, which will limit the ability to capture these factors while remaining diversified.

Macro factors suffer from fastest descent into bear market territory in modern history

Carry and momentum factors were negative over the quarter. Both fell victim to the shock across markets inflicted by both COVID-19 and the plunge in oil prices that followed a collapse in negotiations between Saudi Arabia and Russia over production cuts. FX exposures led the way down on the carry front, particularly across emerging market currencies, where losses from long positioning across the Mexican peso, Russian ruble and South African rand (all down around 20%) more than offset gains from short positioning across other markets. The fixed income carry factor was also negative over the quarter, due primarily to losses from the term premium subfactor, which favored short exposure to Canadian 10-year bonds—where the central bank aggressively cut rates in response to the COVID-19 and energy commodity headwinds.

Momentum factors were mixed, though in aggregate they declined, as time-series momentum exposures suffered from what was the fasting-forming bear market in the U.S. over the entirety of data examined between 1926 and 2020 (**EXHIBIT 5**). Cross-sectional momentum, on the other hand, was positive across commodities markets, benefiting from being generally long precious metals and short certain energy and agricultural markets.

Carry spreads are generally below long-term averages, particularly across G10 government bonds and FX markets. This suggests a diminished potential to capture carry in those markets going forward. Among momentum factors, dispersion in price moves was average across currencies and commodities. The number of significantly trending levels remains high, with fixed income markets trending positively across the globe, commodities markets trending negative and equities mixed to slightly negative.

CONCLUDING REMARKS

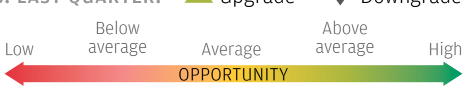
Although factors generally suffered from the dual shocks of COVID-19 and the oil price war between Saudi Arabia and Russia, the opportunity set remains more attractive than it has been since we began sharing our Factor Views, toward the end of 2017. The potential looks particularly strong across equity factors; however, as always, we believe in diversifying across a broad range of compensated factors while minimizing exposure to uncompensated risks.

FACTOR OPPORTUNITY SET

The table below summarizes our outlook for each of the factors accessed by the Quantitative Beta Solutions platform. It does not constitute a recommendation but, rather, indicates our estimate of the attractiveness of factors in the current market environment.

FACTOR VIEWS

VS. LAST QUARTER: ▲ Upgrade ▼ Downgrade – No change



				Rationale
Equity	Momentum		▼	Negative on valuation, neutral on dispersion (decrease from last quarter)
	Valuation		–	Attractive on valuation, attractive on dispersion
	Quality		▼	Neutral on valuation, neutral on dispersion (decrease from last quarter)
	Size		–	Attractive on valuation
Event-driven	Merger arb		–	Attractive on deal premia, attractive on % of friendly deals, negative on activity level
	Other*		▼	Negative on activity level (decrease from last quarter); positive value/size tailwinds
Macro	Carry		–	Negative on FX spreads (decrease from last quarter), negative on fixed income spread, positive on commodity spread (increase from last quarter)
	Momentum		▲	Neutral on FX price dispersion, neutral on commodity price dispersion (increase from last quarter), attractive on significant price trends

Source: J.P. Morgan Asset Management; for illustrative purposes only.
*Other: Conglomerate discount arbitrage, share repurchases, equity index arbitrage, post-reorganization equities and activism.
Our framework for evaluating factor outlooks is centered on the concepts of dispersion, valuation and the opportunity for diversification. For equity factors, we measure dispersion and valuation spreads between top-quartile and bottom-quartile stocks on a market, region and sector-neutral basis. For event-driven factors, we measure implied carry and the level of corporate activity as indicative of the ability to minimize idiosyncratic stock risk. For macro factors, we measure the dispersion or spread between top-ranked and bottom-ranked markets as well as the number of significantly trending markets.

GLOSSARY

- **Equity momentum:** Long/short global developed stocks based on price change and earnings revisions; sector and region neutral
- **Equity value:** Long/short global developed stocks based on book-to-price, earnings yield, dividend yield, cash flow yield; sector and region neutral
- **Equity quality:** Long/short global developed stocks based on financial risk, profitability and earnings quality; sector and region neutral
- **Equity size:** Long/short global developed stocks based on market capitalization; sector and region neutral
- **Merger arb:** Long target company and short acquirer (when offer involves stock component) in announced merger deals across global developed markets
- **Event-driven (other):** Conglomerate discount arbitrage, share repurchases, equity index arbitrage, post-reorganization equities and shareholder activism
- **Macro carry:** FX G10 carry, FX EM carry, fixed income term premium, fixed income real yield, commodity carry
- **Macro momentum:** FX cross-sectional momentum, commodity cross-sectional momentum and time-series momentum across equity, fixed income and commodity markets

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