

## U.S. STEEL AND ALUMINUM TARIFFS—SHOULD QUANTS BE WORRIED?

APRIL 2018

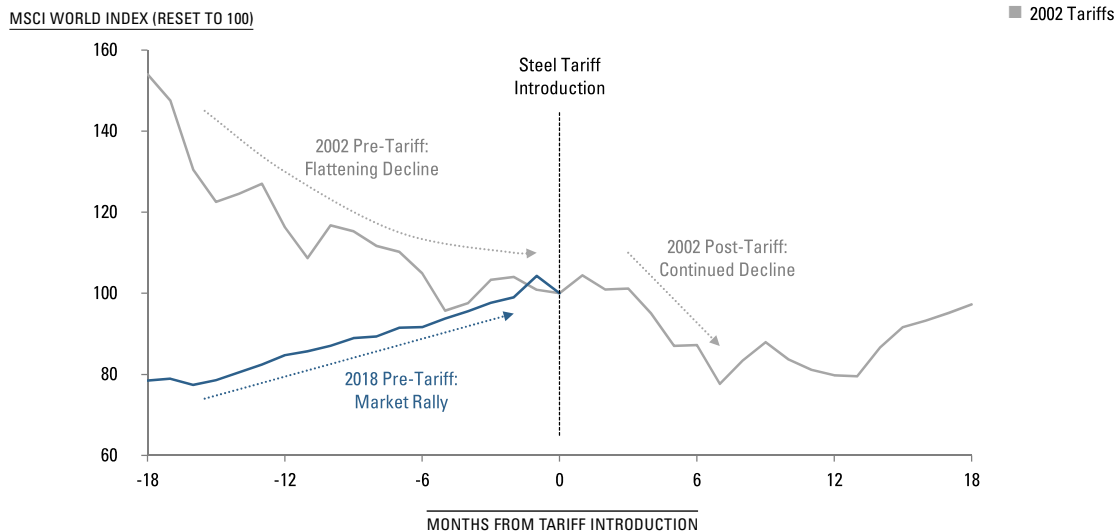
- Markets are in a different phase of the cycle compared to the last time the U.S. imposed tariffs on imported steel.
- Tariffs hold the potential to dampen market performance, as appeared to be the case in 2002.
- Performance of various factors suggests that there may be some mean reversion ahead for markets with or without tariffs; however, these changes should be benign in the near term for diversified quantitative equity strategies.

No sentiment quite captures the current state of affairs around U.S. steel and aluminum tariffs as George Santayana's aphorism: *"Those who cannot remember the past are condemned to repeat it."* On March 5, 2002, U.S. President George W. Bush imposed 8-30% tariffs on imported steel. While domestic steel producers were supportive of this move, the Bush administration faced significant criticism from both domestic consumers of steel and non-exempt foreign trading partners. Ultimately, the tariffs were withdrawn in December 2003 (well short of their intended 3-year lifespan), following the authorization of more than \$2 billion in sanctions by the WTO against the U.S. and the threat of retaliatory tariffs by the European Union.

On March 8, 2018, U.S. President Donald Trump imposed a 25% tariff on steel and a 10% tariff on aluminum imports. In the following weeks, the U.S. has proposed additional tariffs on a range of imported Chinese goods; these have been met with proposals for retaliatory tariffs from China. In this piece, we re-examine whether history can provide any degree of foresight into the potential implications of a trade war for quantitative investment strategies. While the imposition of tariffs has historically been an impediment to economic growth, our research suggests that this has not necessarily been detrimental to quantitative investment returns.

**FIGURE 1**

**MSCI World returns around tariff introductions**



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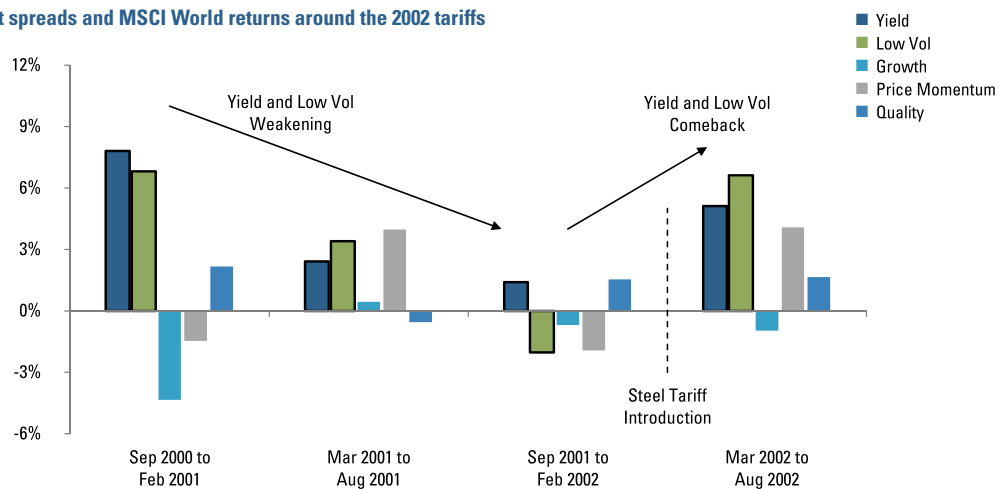
## DIFFERENT TIMES, DIFFERENT MARKETS

Our first observation is that global equity markets are currently in a fundamentally different point of the cycle compared to the last time the U.S. imposed steel tariffs in March 2002. Back then, global markets were in decline following the collapse of the TMT bubble—by March 2002, the MSCI World Index had fallen around 35% in USD-denominated gross terms from the September 2000 peak.

The MSCI World return series (Figure 1 in grey) suggests that the introduction of U.S. steel tariffs in 2002 may have extended the TMT collapse. While returns had been falling over the 18 months prior to the introduction of steel tariffs in 2002, the aggressiveness of the correction had been diminishing. Factor performance over the period also reflects the relative improvement in investor sentiment. Figure 2 shows that return spreads to defensive factors such as yield and low vol diminishing over each successive 6-month period. In fact, low vol spreads were inverted in the 6 months immediately preceding the introduction of steel tariffs in March 2002, and this is because the market had rallied around 4.5% from October 2001.

### FIGURE 2

Factor long/short spreads and MSCI World returns around the 2002 tariffs



Source: Acadian; MSCI. Copyright MSCI 2018. All Rights Reserved. Unpublished. PROPRIETARY TO MSCI. For illustrative purposes only. It is not possible to invest directly in an index. We plot the factor return spreads for eight indicative factors for the 18 months preceding the introduction of steel tariffs in March 2002 (broken up into three 6-month periods), and for the 6 months following tariff introduction. The factor spreads are constructed as the equally-weighted top-quintile return minus the equally-weighted bottom-quintile return, rebalanced monthly and compounded within each 6-month block. The underlying metrics behind each of the factors are: value: trailing book-to-price, yield: trailing dividend yield, growth: EPS growth, price momentum: 12-month minus 1-month trailing returns, quality: forward 12-month ROE, and low volatility: inverse 250-day trailing volatility.

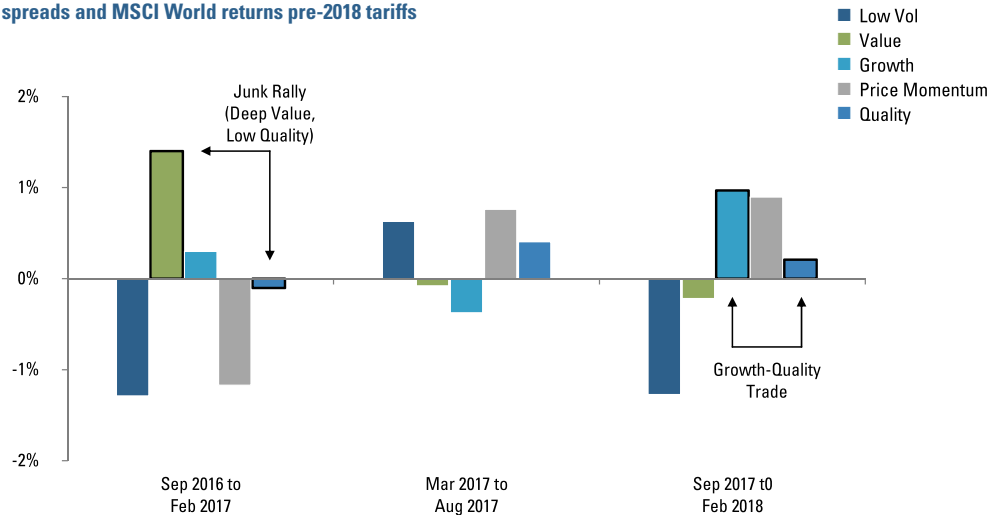
The introduction of the U.S. steel tariffs, however, demarcates the point at which this apparent recovery was cut short. In the 6 months immediately after the introduction of the steel tariffs in March 2002, the MSCI World Index fell a further 12.8%, while return spreads to defensive factors – yield and low vol – returned to strongly positive territory. Notably, price momentum performed well during this period because the market returned to trend, even if it was of a downward trajectory. The introduction of the U.S. tariffs in March 2002, in the short term, had a seemingly negative effect on global equity markets, though it is difficult to ascertain whether the relationship was truly causal.

The past 18 month period leading up to the introduction of steel and aluminum tariffs in March 2018 (Figure 1 in blue) has been very different from the period leading up to steel tariffs imposed in March 2002. In contrast to deteriorating global markets in the early 2000s, the past 18 months have been characterized by aggressive equity market gains. Figure 3 plots MSCI World returns and factor return spreads over each of the past three 6-month periods.

While index gains have been sustained over the period, changes in factor spreads reveal an evolution from a junk rally recovery (characterized by heavily sold off, deep-value, low-quality names rallying aggressively) to a growth/quality trade which is much more aligned with earnings and price momentum. However, the sensitivity of both of these trades to the long-term economic outlook makes them inherently volatile, resulting in underperformance in low vol stocks.

## FIGURE 3

Factor long/short spreads and MSCI World returns pre-2018 tariffs



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## WHERE TO FROM HERE?

Historically, aggressive growth/quality driven markets have not been sustained for extended periods of time. High-growth stocks and high-quality stocks have, in the past, tended to outperform at different times during the market cycle, while outperformance in momentum and quality (as we've observed over the past 6 months) is unusual for up-markets. This suggests that even without the effect of tariffs, we are likely to see some mean reversion in current market trends. In addition to this, evidence from 2002 suggests that the introduction of tariffs may lead to a further dampening effect. While it is too early to determine whether such a dampening will occur, it is worth noting that the MSCI World Index has experienced, in February, its first significant monthly decline in 15 months, which has subsequently continued into March with the introduction of additional trade tariffs against a subset of Chinese imports into the U.S.

In a declining market environment, exposure to low vol has historically provided the greatest downside protection. Earnings and price momentum have, in fact, also been highly resilient to negative equity market returns in the past, and this because momentum becomes correlated with low vol stocks during these periods (as we saw during the TMT collapse, the GFC, and the 2015 global market correction). In addition, higher-quality stocks also have the potential to outperform and provide downside protection during such periods. The risk case to active returns from quantitative equity strategies will come in the medium term if the market does enter a sustained downward slide. This accelerates the advent of the junk rally that has historically awaited investors at the bottom of market collapses, and these junk rallies are typically challenging times for quantitative strategies (and institutional managers in general).

In the near term, either a continuation of the current trend or a global equity market dampening is generally not unfavorable for quantitative investment strategies with diversified exposure to value, growth, quality, and momentum. In addition, strategies with low vol exposure should see improvement from any market weakening. Of course, past performance is not a reliable indication of future performance, and we're about 29 data points short of even a remotely robust sample size. However, from a factor returns perspective, a repeat of the past may not be so bad after all.

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