

In Momentum Equity “The Customer is Always Right”

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The “hot hand” phenomenon

As the NBA returns from the COVID-induced hiatus, we are once again reminded of the “hot hand” phenomenon, i.e., the assumption that a player who has recently played “hot” or “cold” will continue to do so. The same concept can be applied to stocks: those that have recently performed well will continue to do so in the future. In recent years, as the mega-cap tech companies have dominated time and time again, the “hot hand” phenomenon has seemingly been quite accurate.

An investment strategy using the standard definition of momentum will invest in stocks that have performed well over the trailing three to 12 months. However, continuing to purchase stocks at increasing prices can expose investors to market bubbles and subsequent pops. In this blog, we explore a *fundamentally* inspired definition of momentum known as “customer momentum,” which hypothesizes that if a company’s largest customers do well, their suppliers’ business is likely to follow. Customer momentum was first explored by Cohen and Frazzini in 2008 when they were investigating the effects of supply chain linkages and security prices. They found that there is a lead-lag relationship in price performances between a firm’s customers and the individual firms. Cohen and Frazzini attributed the cause of this relationship to the limited attention of stock analysts, who fail to immediately incorporate the increased or decreased demand of a firm’s customers whose operations are either improving or deteriorating in the analysts’ valuations of the firm. Analysts’ limited attention then causes this information to be priced into the firm’s price performance with a lag. This lag creates opportunities for fundamentally minded investors to profit by predicting the future price behavior of firms by using a proxy for the current performance of their customers, such as the customers’ recent price return.

Ironically, despite the academic evidence, momentum has no shortage of critics among academics as well as investment practitioners, both fundamental and quantitative. The rationale for debate can be summarized with three points:

1. Fundamentally minded portfolio managers often avoid momentum investing because they prefer the higher upside potential associated with stocks that have recently fallen relative to their intrinsic value.
2. Academics may argue that the economic rationale for momentum is not as strong as other traditional factors (e.g., value). This is largely because the factor is dependent on behavioral biases (e.g., underreaction to news and prospect theory) but lacks a true risk premium. In other words, investors are not taking on additional risk by investing in stocks that have recently performed well because there is no risk premium to earn for it.
3. Quantitative investors often find it difficult to harvest the premia theorized in academic studies. It is a relatively fast signal making implementation quite difficult. To truly capture the factor, high turnover is required, which results in high transaction costs that can cannibalize returns. It is also prone to large and fast drawdowns.

Customer momentum: a modern take on traditional price momentum

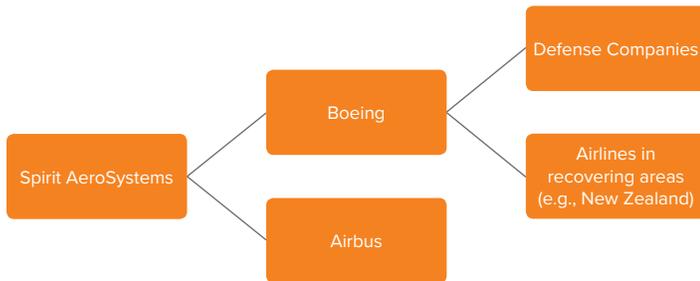
Given these hurdles, we explored a fundamentally inspired, indirect definition of price momentum that captures the potential alpha in an intuitive manner. The result is a momentum signal linked to a company’s largest customers based on the theory that if said company’s customers do well, their suppliers’ business will follow.

While the concept of price momentum is not particularly new, we expanded on this definition to include the impact of improvements in operations of customers further along the supply chain (e.g., the customers of the firm’s customers).

Our case study uses Spirit AeroSystems Holdings Inc. (SPR) as an example. SPR is a supplier to the aerospace industry and its largest revenues come from contracts with Boeing and Airbus, which are also both highly dependent on the airline industry. Given the current state of airlines, which have been in dire straits from the travel restrictions and

declining demand from the COVID-19 pandemic, the stock prices of Spirit, Boeing and Airbus have declined. However, moving to the second degree of customer momentum shows some positive aspects. Boeing has customers in more resilient industries, such as defense, as well as in economies that are reopening from their COVID-19 shutdowns (Figure 1).

Figure 1. Spirit AeroSystems Customer Momentum Case Study at a Glance



This concept is not only fundamentally intuitive, data suggests that it is a stronger signal than traditional price momentum. Our analysis showed that the inclusion of first- and second-degree momentum resulted in generally higher returns, lower volatility—and therefore, better Sharpe Ratios—and significantly lower drawdowns than traditional 12-month momentum (Figure 2). To construct our customer momentum signal, we use supply chain data from the FactSet Revere Supply Chain database, which details supply chain relationships disclosed in regulatory filings, investor presentations, and press releases on 23,000 companies globally. Increasingly, such datasets allow investors to look for potential alpha beyond traditional financial statement analysis. Similar to Cohen and Frazzini, we limit the universe of customers in the signal to only those with publicly listed equities and calculate customer momentum.

Figure 2. Customer Momentum Signals Stronger Than Traditional Momentum Over the Long Term

	Standard Momentum*	1st Customer Momentum	2nd Customer Momentum
Annualized Return	5.49	5.81	4.97
Annualized Volatility	14.99	9.43	9.04
Sharpe Ratio	0.33	0.56	0.49
Max Drawdown	-26.22	-11.1	-17.71

Source: Factset
 * Standard momentum is representative of 12-month price momentum June 30, 2010 – June 30, 2020

Over shorter time frames and in periods of highly volatile markets, first- and second-degree customer momentum may be even stronger than traditional momentum, as was seen from February 2020 – June 2020, which encompassed the COVID-19 drawdown and the start of the recovery. During this time frame, standard momentum reverted and produced negative performance, whereas both first- and second-degree customer momentum continued to be strong signals.

Figure 3. Customer Momentum Signals Shined Through the COVID-19 Drawdowns

	Standard Momentum*	1st Customer Momentum	2nd Customer Momentum
Annualized Return	-8.20	13.40	3.98
Annualized Volatility	32.32	30.17	23.26
Sharpe Ratio	-0.59	1.16	0.41
Max Drawdown	-18.10	-10.36	-8.95

Source: Factset
 * Standard momentum is representative of 12-month price momentum June 30, 2010 – June 30, 2020

In addition, we found that the returns of standard and customer momentum signals were highly correlated, suggesting both are exposed to the same market trends. To determine the extent to which first- and second-degree customer momentum add value over the traditional definition, we hedged out standard price momentum from the first- and second-degree customer momentum signals. Our analysis resulted in strong returns and Sharpe Ratios, even after hedging out standard momentum for both first- and second-degree customer momentum. In other words, the addition of first- and second-degree customer momentum signals provides unique information, and can be used together or along with standard momentum to improve the performance of traditional momentum alone.

Conclusion

Our quantitative equity team is constantly looking to capitalize on the increased availability of granular data and technological improvements to improve upon traditional factor signals, such as standard price momentum. Customer momentum is just one example of how we collaborate with our sector analysts to identify a fundamentally intuitive signal that improved on a typical factor and could be captured quantitatively. In our next Factor Features blog, we will dive into the highly debated and dented *value factor*, as well as the research we have done to expand upon traditional measures.

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