

MEMORANDUM

FROM: Gina Moore

DATE: July 31, 2018

RE: **MOMENTUM INVESTING**

A client inquiry about the genesis of momentum investing led to the attached.

“The Premier Anomaly” — named by Gene Fama of all people! — remains hotly debated. Why does it work so well? Can it be traded? That sort of thing



“You got a ‘C’ in History?? How hard could it be?”

GMM

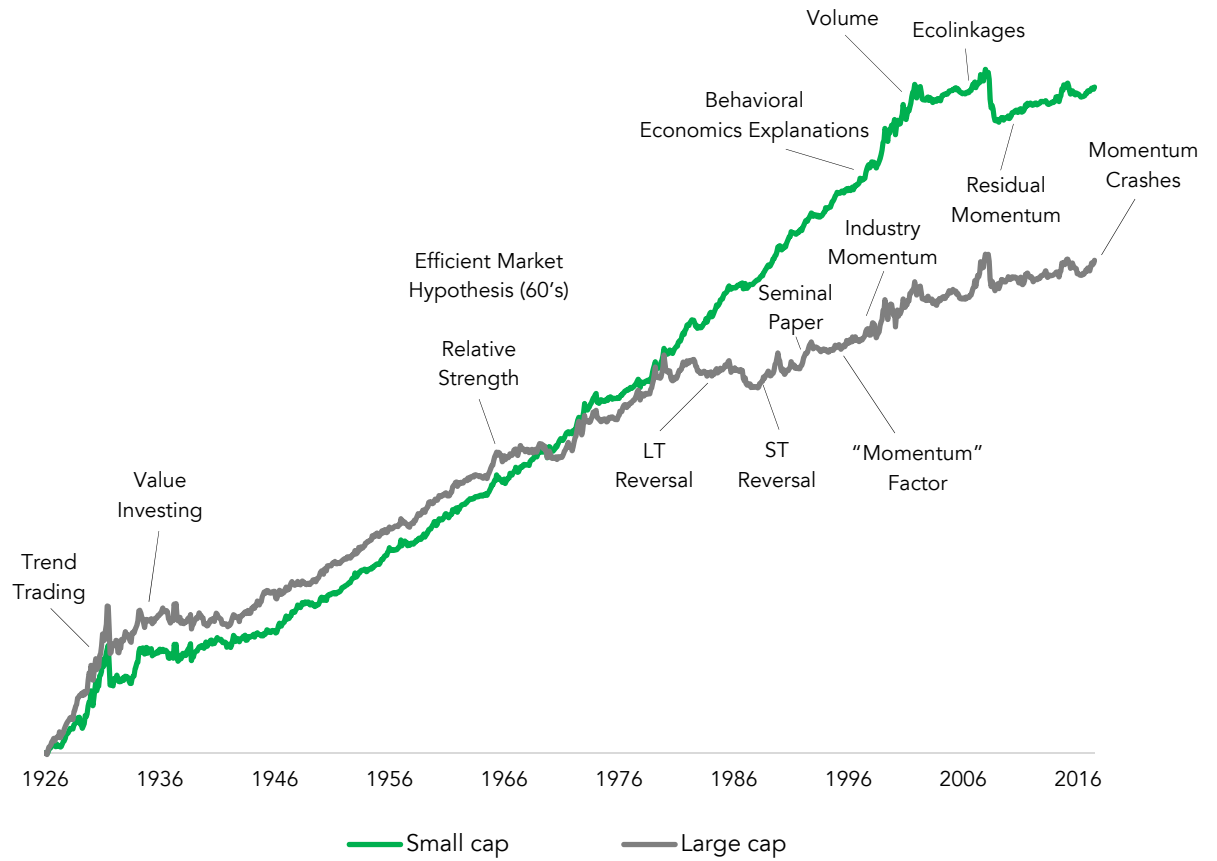
moore@ajopartners.com

gce

N.B. – André Perold’s “The implementation shortfall: Paper versus reality” used the Value Line Investment Survey to highlight the real-world costs of a momentum strategy.

MOMENTUM THROUGH TIME

Return spreads: 1926 – 2018



Source: Ken French's library
 N.B. — Spreads are graphed on a logarithmic scale.



"Frankly, I hate weekends. They break my momentum."

A HISTORICAL TIMELINE OF THE MOMENTUM ANOMALY

1688 <i>Trends</i>	Dutch merchant Joseph de la Vega in "Confusion de Confusiones." Bulls keep buying, bears keep selling, and prices follow trends.
Early 1900s <i>Trade on the trend</i>	Famous trader Jesse Livermore argued that nobody should be puzzled as to whether the market is a bull or a bear after it fairly starts. The trend is evident to anyone with clear insight.
Mid-Late 1900s <i>Value is King</i>	Graham & Dodd and Warren Buffet dominate investment culture. Fundamental analysis is king and behavioral/chartist/trend investment takes a back seat among practitioners.
1967 <i>Relative Strength</i>	Robert Levy — a practitioner — writes "Relative Strength as a Criterion for Investment Selection" (JoF), but his findings go dormant given the hegemony of the Efficient Market Hypothesis advanced by Eugene Fama.
1985 <i>Long-Term Reversal</i>	Wermer, deBondt and Thaler: "Does the Stock Market Overreact?" (JoF). Inspired by the nascent field of Behavioral Economics, they identify the long-term reversal anomaly (> 2 years).
1990 <i>Short-Term Reversal</i>	Jegadeesh: "Evidence of Predictable Behavior of Security Returns" (JoF) and Lehman: "Fads, Martingales and Market Efficiency" (Quarterly Journal of Economics). Uncover up to 1-month short-term reversal effects.
1993 <i>Momentum Seminal Paper</i>	Jegadeesh and Titman: "Returns to Buying Winners and Selling Losers: Implications for Market Efficiency" (JoF). The seminal momentum paper. Analyze 12-month up to 1-month momentum returns. Find most strength on 6m to 12m portfolios, particularly when considering turnover.
1997 <i>Momentum Factor</i>	Mark Carhart: "On Persistence in Mutual Fund Anomalies" (JoF) creates a "Momentum Factor," effectively coining the term. The academic floodgates open (it will be called "The Premier Anomaly" by Fama himself years later).
1998, 1999 <i>Behavioral Explanations</i>	Barberis, Shleifer and Vishny: "A Model of Investor Sentiment" (JoFE) argues that momentum is a behavioral underreaction of investors to new and unexpected news. To date, this is one of the most widely accepted views on the anomaly. Daniel, Hirshleifer and Subrahmanyam: "Investors Psychology and Security Markets Under and Overreactions" (JoF) argue that momentum spans from the overconfidence of investors who place too much emphasis on their private information, combined with biased self-attribution that makes them slowly adjust their beliefs based on opposing public information. Hong and Stein: "A Unified Theory of Underreaction, Momentum Trading and Overreaction in Asset Markets" (JoF) argue that the interaction of investors with bounded rationality ("newswatchers" and "momentum traders") allows for the existence of the momentum anomaly.

<p>1999 <i>Industry Momentum</i></p>	<p>Moskowitz and Grinblatt: "Do Industries Explain Momentum?" (JoF) found that industry momentum exists, is not subsumed by stock momentum, and is robust to controlling for value and size.</p>
<p>2002 <i>Volume and Momentum</i></p>	<p>Lee and Swaminathan: "Price Momentum and Trading Volume" (JoF) develop the Momentum Life Cycle Hypothesis, in which winners begin by underreaction and hence low relative historical volume. Eventually, the underreaction becomes overreaction with frothy volume, and winners become losers (reversal).</p>
<p>2008 <i>Economic Linkages</i></p>	<p>Cohen and Frazzini: "Economic Links and Predictable Returns" (JoF) exploit Reg SFAS #131 requiring firms to report identity of customers representing more than 10% of company revenue. Lack of attention allows to extrapolate the customers' returns to the reporting firm and generate a profit.</p>
<p>2010 <i>Supply Chain</i></p>	<p>Orbas and Menzly: "Market Segmentation and Cross-Predictability of Returns," use the Benchmark Input-Output Surveys of the Bureau of Economic Analysis to map supplier and customer linkages among industries and profit from cross-momentum effects among them.</p>
<p>2011 <i>Residual Momentum</i></p>	<p>Blitz, Huij and Martens: "Residual Momentum" (JoEF) propose a CAPM beta-adjusted momentum as a better mousetrap to mitigate crashes and improve the performance of the factor.</p>
<p>2013 <i>Momentum Everywhere</i></p>	<p>Asness, Moskowitz and Pedersen: "Value and Momentum Everywhere" (JoF) document out-of-sample evidence of the momentum (and value) anomaly in different countries and across many asset classes. Also develop a simple three-factor global pricing model based on the Market, global Value and global Momentum.</p>
<p>2016 <i>Crash Insurance</i></p>	<p>Moskowitz and Daniel: "Momentum Crashes" (JoFE) propose a dynamic hedging strategy based on momentum's mean and variance econometric forecasts, which scales the strategy up/down trying to anticipate the violent performance swings during market inflections. Similar to Grundy and Martin's (2001) approach but — they argue — without the forward biased estimation of market inflections.</p>
<p>2016 <i>Ultra-Long-Term Evidence</i></p>	<p>Geczy and Samonov: "Two Centuries of Price-Return Momentum" (FAJ) collect evidence predating CRSP data (i.e. before 1926) back to 1800. They find that the anomaly was present then, as well as it was industry momentum. Also identify seven periods between 1800 and 1927 with entire decades of underperformance (compared to the two post 1927: during the Great Depression and post-GFC). Propose a simple hedging strategy to enhance the anomaly based on a measure of changing market state, as they conclude that the momentum effect becomes riskier the longer the market state lasts: when market conditions change, the strong beta exposure significantly undermines profits.</p>