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## Research Roundup

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By Kerry Pechter    Thu, Sep 13, 2018

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*Recent research suggests that factor investing may beat passive; air pollution promotes dementia; investors buy active funds because they believe hard work pays off; Fed 'surprises' cause wider ripples than previously thought; a Nobel prize winner talks about trust in fintech firms vs. banks.*

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Our ability to outsmart ourselves knows no bounds. Famous books and plays like *Oedipus Rex*, *King Lear*, *Moby Dick*, *Anna Karenina* etc. have all dramatized the universality of “hubris” and its dire consequences. That’s one good reason to read great books.

With the emergence of “behavioral finance,” the field of economics is catching up with literature. We now know that instead of using semi-rational homegrown rules-of-thumb when investing in equities, we should buy index funds and not try to beat the market.

Or do we know that? In a new paper about the psychological drivers of capital asset prices, Yale School of Management professor Nicholas C. Barberis arrives at a counter-intuitive conclusion. He recommends a specific investment strategy, and it’s not passive.

The smart approach, he claims, involves “an active trading for rational investors, one where investors tilt their portfolios toward low price-to-earnings stocks and gently time the stock market to take advantage of return predictability.” In other words: Actively managed funds with a value tilt.

Products that help even retail investors do that already exist, he adds. In the past few years, he writes, “new financial products have appeared that exploit mispricing” by mechanically buying and selling assets with these characteristics, which have “genuine predictive power” (The plus and minus signs indicate whether the characteristic has positive or negative predictive power):

- Past three-year return -
- Past six-month return +
- Past one-month return -
- Earning surprise +
- Market capitalization -

- Price-to-fundamentals ratio -
- Issuance -
- Systematic volatility -
- Idiosyncratic volatility -
- Profitability +

“These new products are attracting large flows from institutional investors and are drawing interest from households too,” Barberis writes. He’s referring to factor investing, of course, though he doesn’t say that in the paper. “Factor-based funds may be an attractive addition to a portfolio over and above index funds,” he told *RIJ* in an email.

Does he recommend factor funds on a net-of-fees basis? “Yes I do,” he said, “so long as the fees are low, of course. My understanding is that some of these products do have low fees now - but not all, so some care is needed.”

Most of the paper describes discussion of Barberis’ search for a “unified psychology-based model of investor behavior might take.” He reviews existing literature on behavioral finance and concludes that such a model might combine “extrapolative beliefs” (where expectations about the future are based on past experience) and “gain-loss utility” (the idea that losses hurt more than gains feel good)—a pairing on which very little work has been done, he writes.

In other recent research:

### **Air Pollution Can Promote Dementia**

Air pollution contributes to the development of dementia in older adults according to this study, which tested linked 15 years of Medicare records for 6.9 million adults age 65 and older to the EPA’s air quality monitoring network and tracked the evolution of individuals’ health, onset of dementia, financial decisions, and cumulative residential exposure to fine-particulate air pollution (PM2.5).

“A one microgram per cubic meter ( $\mu\text{g}/\text{m}^3$ ) increase in average exposure between the ages of 76 and 85 is associated with a 1.06 percentage point increase in the dementia rate at age 85,” write Kelly C. Bishop, Jonathan D. Ketcham, and Nicolai V. Kuminoff, all of Arizona State University in their paper, “Hazed and Confused: The Effect of Air Pollution on Dementia” (NBER Working Paper 24970).

The paper also suggests that one of air pollution levies a cost to the U.S. economy by impairing the financial decisions of older adults. “We estimate that the dementia-related

benefits of the EPA's county nonattainment designations exceeded \$150 billion," the authors write.

Low-income Americans living in high pollution areas are especially vulnerable to this effect. "Our data show that African-American and Hispanic individuals are about twice as likely to acquire dementia, as are people who live in areas with lower income and less education. Our results suggest that differences in neighborhood air quality may contribute to these socioeconomic disparities in disease burden," the paper said.

### **Why Investors Still Buy Actively Managed Funds**

Starting with the assumption that index funds are better than actively managed funds, J.B. Heaton of the University of Chicago Law School and Ginger L. Pennington, a psychologist at Northwestern University, ask why "many investors remain committed to active investing despite its poor relative performance."

The conclusion: Many investors associate extra effort with better performance; they therefore tend to believe that actively managed funds are likely to outperform index funds. For that reason, they also tend to be swayed by advertising that stresses the effort that fund managers put into picking stocks.

"We explore the behavioral economic hypothesis that investors fall prey to the conjunction fallacy, believing good returns are more likely if investment is accompanied by hard work," they write in their paper, "How Active Management Survives" (SSRN, June 2018). "This is an especially plausible manifestation of the conjunction fallacy, because in most areas of life hard work leads to greater success than laziness."

"Our internet survey results show that from 30% to over 60% of higher-income, over-30 individuals fall prey to the conjunction fallacy in this context, raising significant questions for law and regulatory policy," they write, adding that regulators should provide stronger investor protections than the Regulation Best Interest recently proposed by the Securities and Exchange Commission.

"That rule would not require what would be most valuable: a clear, evidence-based warning attached to actively-managed products disclosing the average superiority of more inexpensive passive strategies. Perhaps we should a warning similar to drug warnings: "Many active investment strategies underperform more inexpensive alternatives. Ask your broker for more information."

## **Early and Late Reactions to Fed “Policy” Shocks Still Valid**

In a new paper on the effects of U.S. Federal Open Market Committee (FOMC) policy announcements on asset prices, Andreas Neuhierl and Michael Weber suggest that asset prices keep changing for up to 25 days before and 15 days after the official announcement, even when the changes surprise the market.

As the two authors argue in “Monetary Momentum” (NBER Working Paper No. 24748), investors who pursue a “monetary momentum” timing strategy based on interest rate movements are therefore wrong to focus attention only on changes in asset prices during the 30 to 60 minutes before and after the announcement.

“Such a narrow focus may underestimate the effect of monetary policy,” the authors write. A monetary momentum strategy invests in the market when a monetary policy shock is associated with lower rates and shorts it when the shock is associated with higher rates.

A monetary policy surprise, or “shock,” is defined here as a policy announcement for which the FOMC announced a rate lower or higher than the rate predicted by federal funds futures contracts before the FOMC meeting.

The researchers conclude that so-called surprise changes in target FOMC interest rates might be partially predictable, a fact that would have “important implications for the large literature... that tries to understand the real effects of exogenous monetary policy shocks on real consumption, investment, and GDP.”

## **Can You Trust Fintech Firms as Much as Banks?**

Who would you trust more with your deposits: Banks or fintech companies?

Because banks have access to insured deposits and provide valuable depository services to their customers, and because fintech platforms are entirely investor-financed, banks are innately more trustworthy for depositors than fintech platforms, write Nobelist Robert Merton of the MIT Sloan School of Management and Richard T. Thakor of the University of Minnesota.

This provides banks with a competitive advantage over non-depository lenders on the trust dimension, they say in a recent paper, “Trust in Lending” (NBER Working Paper 24778). They claim to be the first economists “to theoretically model trust-based intermediation and use it to characterize the impact of fintech firms on the credit market.”

“Our basic idea is that trust insulates lenders from the adverse reputational consequences of loan defaults, and the degree of insulation depends on market conditions. Whether they are trusted or must rely on reputation, the depository (customer) relationships banks have are a source of rents—unavailable to fintech lenders—that influence banks to make good loans in some states even when they are self-interested,” they write.

“This is what enables banks to survive when trust is lost, a circumstance in which fintech lenders shut down,” they add. “Trust is asymmetric—it is easier to lose it than to gain it. The importance of trust varies across banks and fintech lenders. While banks may be able to operate without trust, investor trust is essential for fintech lenders to be able to operate.”

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