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The Rise of the Passive Brigade

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At the heart of modern finance lies hidden a carefully concealed dichotomy. For financial markets to function well, prices must reflect fundamental information. Yet, it is precisely when markets are functioning well that incentives to gather information completely disappear! No recent phenomenon exemplifies this paradox better than the massive growth of passive funds in Western markets in the last decade. While the financial powers that be have remained fixated with quantitative easing and anaemic economic growth, the charm of passive investment has cast its spell on markets quietly, almost unnoticed at first. Yet the growth of the passive brigade represents a fundamental shift in the practice of finance, as big as any we've seen in the past, creating new challenges for regulators, market participants and academics alike.

1. Explosion in Passive Investment

As of July 2017, more than a third of all assets in the US were in passive funds, and close to $500bn had moved out of active funds into passive funds in the first half of the year.1 In fact, according to Broadridge Financial Solutions Inc., a financial technology provider, 85% of the net new asset flows through third-party channels in 2016 went into index funds or passive exchange traded funds (ETFs) in the US.2 In contrast, a decade back, only about a fifth of US assets were in passive funds. In 2000, the fraction was about a tenth. The direction of net flow, as recently as 2010, was from passive to active funds. Meanwhile, the size of US stock mutual funds following passive strategies has tripled since 2007.3 And ETFs, non-existent 25 years back, today account for 30% of all US trading by value, and 23% by share volume.4 Though the curve has been less steep, passive investment has been growing quickly in the Europe as well. Passive strategies constituted about 12% of assets under management in 2016 in Europe, up from just 5% in 2004.5

[1] Charles Stein. "Active vs. Passive Investing." bloomberg.com, July 06, 2017. Accessed: August 21, 2017.

An accompanying trend has been the relative underperformance of active funds. SPIVA, an S&P Dow Jones affiliate, estimates that about 83% of active US equity funds failed to beat their 10 year benchmark in 2016, and close to 40% of the active funds were terminated in less than 10 years due to underperformance. For Europe the numbers were about 87% underperformance and 50% terminated.6

2. Some Finance Theory

Building on prior work, American economists Sandy Grossman and Joe Stiglitz uncovered a puzzling contradiction at the root of finance in 1980.7 Called the Grossman-Stiglitz paradox in honour of the authors, the basic formulation is deceptively simple: A financial market cannot simultaneously be well-informed and well-functioning.

A financial market can be said to function well, Grossman and Stiglitz contended, when the price at which a trade happens reflects the fundamental value of the claim being traded. The process by which a market comes up with this price of trade is called "price discovery". Till the publication of their paper, price discovery was largely ignored in the literature, the common assumption being that markets inherently somehow always came up with the right price! They, however, wanted to lay bare the price discovery process. While wrestling with the notion of price discovery, they quickly realized that the process cannot happen in a vacuum. For a price to be discovered, some market participants needed to "actively" gather information about the claim. It is only through the participation of such informed traders in the market, they argued, can price be truly discovered. There was still a catch, however. Why must any market participant actively gather information at all? Information gathering required money and time, and a market participant would engage in the activity, they claimed, only if he was compensated for it by the market process. Could markets reward active information gatherers consistently?
Any trader will vouch for the fact that the process of trading leaks information. To see why, imagine that you need to buy vegetables, but have no clue about the prices. You come to a vegetable market completely ignorant, and begin bargaining with the sellers. If you are smart, soon enough you end up with a very good idea of the prevailing price. In effect, the vegetable sellers convey their information to you through the market process without you explicitly asking for it. This phenomenon is called "information leakage". Going back to the Grossman Stiglitz scenario, an active informed trader, to get rewarded for the information gathering effort, must be able trade on his information advantage.

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[2] Valentina Kirilova. "Broadridge: The usage of ETFs and index funds hits all-time highs in 2016." LeapRate.com, January 26, 2017. Accessed: August 21, 2017.
[3] Tom Petruno. "Small investors' move to 'passive' stock funds becomes a stampede." Latimes.com, April 9, 2017. Accessed: August 21, 2017.
[4] Robin Wigglesworth. "ETFs are eating the US stock market." Ft.com, January 24, 2017. Accessed: August 21, 2017.

However, as just explained, any trade gives away information. If a financial market has no frictions (in other words, well-functioning), this means that the "passive" market participants instantaneously learn the active informed trader's information through leakage, without expending any gathering effort of their own. Thus there is no way for an active informed trader to get compensated for information gathering in such a market. Which, in turn, implies that no market participant would be an active information-gatherer in the first place. Which, in turn, implies that a well-functioning frictionless market will always stay ignorant!

Grossman and Stiglitz's work created an entire new sub-field of financial economics exploring market frictions – in reality, markets do reflect information, at least partially, so researchers began to look for frictions that prevent markets from functioning well. Grossman went on to win the Bates Clark medal, and Stiglitz, the Nobel memorial prize for this and other work.

3. Connecting the Dots

If there is one defining characteristic of the trajectory of financial markets in the West, it is relentless drive for market efficiency. In the last two decades, insider trading has been eliminated almost entirely; information disclosure norms have been largely standardized; trading venues have been progressively made transparent; the clearing and settlement cycle has been increasingly shortened; most trading has been made electronic; the list goes on. The advent of high frequency algorithmic trading has meant that execution is almost instantaneous. The net result of all these developments has been truly well-functioning markets, especially in equities – markets where frictions have been largely eliminated.

By the Grossman and Stiglitz argument, this relentless drive towards efficiency should also imply that it becomes progressively harder to make money through active investment strategies. And that is largely what we have been witnessing in the last few years. Two thirds in active strategies might mean that US markets are still some distance away from the "perfectly" functioning ideal, but we are hurtling towards that goal at an ever increasing pace. A recent Moody's report suggests in four to seven years, passive investing will overtake active in the US.8

4. The Challenges

The Grossman and Stiglitz argument that seems to be playing out in Western financial markets presents a number of challenges for regulators, market participants and academic researchers. We understand that completely

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[5] Jake Moeller. "Monday Morning Memo: Active and Passive Fund Flows in Europe." lipperalpha.financial.thomsonreuters.com, March 6, 2017. Accessed: August 21, 2017.

[6] SPIVA, S&P Indices Versus Active. us.spindices.com/spiva. Accessed: August 21, 2017.

[7] Grossman and Stiglitz (1980). "On the Impossibility of Informationally Efficient Markets". American Economic Review (70): 393–408.

[8] Moody's. "Passive investing to overtake active in just four to seven years in US; global traction to pick up." www.moodys.com/research, February 02, 2017. Accessed: August 21, 2017

frictionless markets may be incompatible with high quality price-discovery. However, what is the ideal mix of these two ingredients? Do markets have a self-correcting mechanism that leads to this ideal mix, or will it require some form of regulatory intervention? At what level of passive fund flow must an investor shift his money from active to passive? Must active managers continuously readjust their fee, taking into account the level of terms of their effect on price discovery?

Another set of challenges arises from the fact that the squeeze on active strategies has meant that traditionally passive investment vehicles have been witnessing some degree of price discovery in recent years. For instance, a growing body of research shows that, when left with limited alternative opportunities, informed traders may invest in ETFs. Price discovery in such traditionally passive baskets can have a disruptive effect on the market price of the constituents.[9] Passive fund flow also has a tendency to inflate pre-existing market bubbles, because most benchmarks are weighted by capitalization.

For Indian financial markets, the message from this unfolding saga seems to be mixed. The limited quantum of fund flow into passive investment strategies suggests that despite regulatory efforts, Indian markets are still saddled with numerous frictions and inefficiencies. However, this also presents an opportunity – for India still has the chance to pick and choose her own trajectory on the road to market efficiency. What Indian regulators need to do at the present juncture is invest in market design research. An in-house pool of market design expertise can help Indian regulators navigate the tricky waters of market efficiency with dexterity.

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[9] Bhattacharya and O'Hara (2017). "Can ETFs Increase Market Fragility? Effect of Information Linkages in ETF Markets." SSRN Working Paper.