

Elasticity Rising

Finding Pockets of Price-Insensitivity in an Increasingly Price-Sensitive World

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Executive Summary

The ability to price funds appropriately is paramount to the continued success of asset management firms. That task has become more difficult recently as major shifts are occurring in the price elasticity of demand for managed investment products. We examined trends in price elasticity across our global database of funds using the Flowspring Global Flow model. Our key findings include:

- Investors are 5x more price sensitive in 2018 than they were at their low in late 2015.
- We are seeing the first signs of product saturation in the passive investment product landscape as price sensitivity of passive products now exceeds that of active products.
- Price elasticity varies significantly across fund families and fund categories, with more active and niche families/categories commanding greater pricing power.
- Investors are exhibiting lower risk aversion as the price elasticity of demand for volatile funds is now lower than that of more stable funds.

Investors Have Become More Price-Sensitive

Price elasticity of demand, the percentage change in quantity demanded divided by the percentage change in price, may be a topic often reserved for Econ 101 classes, but ignorance to the elasticity of demand for your products can lead to serious repercussions. In the fund industry, pricing power is derived from just a few sources.

The first, and largest driver is perceived product differentiation. When investors believe they can expect uncorrelated or superior investment returns, whether due to skill of an investment manager or uniqueness of an investment strategy, they will be willing to pay more for such a product. These characteristics are not easily replicated.

Switching costs can be another driver of elasticity. While it's not difficult to switch between fund products once the decision to switch has been made, it can be a daunting task for investors to keep up with the ever-changing fund landscape and attempt to stay invested in the highest quality products. In addition, redemption fees have the effect of locking investors into funds longer than they would otherwise stay. Consequently, we do observe significant investor inertia. Asset managers benefit from this inertia by maintaining investors longer than they otherwise would at higher price points.

And yet, the world is changing. Investors have become more price conscious and asset managers have furiously tried to keep pace. More than ever funds are winning new business based on price. In aggregate, price elasticity (a reflection of the price-sensitivity of fund investors) is on the rise.

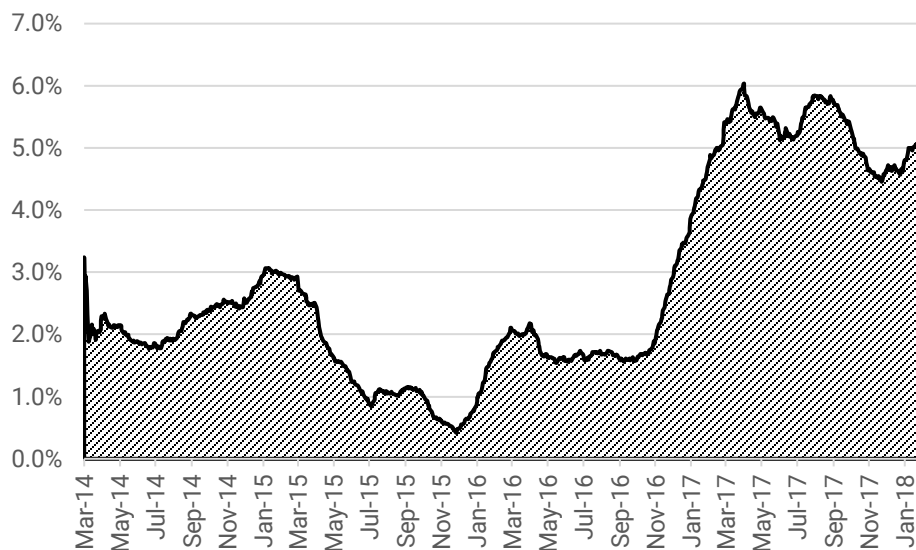


Figure 1. Aggregate price elasticity of demand for global mutual fund and ETF investment products, expressed as the percentage change in expected flow growth due to an 80 basis point decrease in expense ratio.

With that backdrop, the remainder of this article examines the heterogeneity of this effect across fund categories, fund families, and characteristics of funds that investors commonly use in their decision-making.

How We Measure Price Elasticity of Demand for Funds

The Flowspring Global Flow model is a predictive model of flow-based growth for the global mutual fund and ETF universe. At its core, the model is a cross-sectional, nonlinear regression model which relates the flow-based growth of a fund to readily observable

characteristics of that fund, including past performance, management team characteristics, operational characteristics, and, most relevant to this study, expense ratios.

As such, we can generate predictions for flow-based growth of mutual funds and ETFs in our database, and then perturb the input variables (prospectus net expense ratio in this case) and see how that changes the forecast. For the purposes of this paper, we measure elasticity as the percentage point increase in flow growth expected for an 80 basis point decrease in expense ratio.

Pockets of Inelasticity Still Exist

Although we see rising elasticity in aggregate, it is not an always and everywhere phenomenon. There is significant variation in elasticity across fund categories. In fact, the categories with the greatest price elasticity have elasticities more than 2.5 times those with the lowest elasticity.

Category	Price Elasticity of Demand	Category	Price Elasticity of Demand
Infrastructure	8.38%	Intermediate-Term Bond	2.35%
Bank Loan	7.95%	Other	2.54%
Retirement Income	7.84%	Corporate Bond	2.63%
Industrials	7.48%	Foreign Large Value	2.79%
Equity Energy	7.42%	Option Writing	2.90%
Muni National Long	7.22%	Bear Market	2.93%
Multisector Bond	7.16%	Foreign Small/Mid Blend	2.97%
Muni California Long	7.07%	Foreign Small/Mid Growth	3.02%
Intermediate Government	7.04%	Long-Short Credit	3.15%
Muni Pennsylvania	7.01%	Equity Precious Metals	3.36%

Figure 2. Top and Bottom 10 categories sorted by price elasticity of demand

Fund managers in high elasticity categories would be wise to pay very close attention to their expense ratios relative to their competitors, because they could face some severe headwinds to flows at an uncompetitive price level.

We see even greater heterogeneity of price elasticity across fund families. In general, fund families that focus on providing standardized products at extremely low prices, tend to have high elasticity of demand. It makes sense that if investors first chose them based on price, then investors would also leave them based on price if a more attractive product surfaced.

Fund Family	Price Elasticity of Demand	Fund Family	Price Elasticity of Demand
ETFS Commodity Securities Ltd	7.64%	State Street Global Advisors	1.18%
ETFS Foreign Exchange Limited	6.56%	Compass EMP Funds	1.25%
BlackRock Asset Management Ireland - ETF	6.53%	BMO Funds	1.25%
Northern Funds	5.86%	Henderson Global	1.32%
Xtrackers	5.80%	Vantagepoint Funds	1.62%
BlackRock Asset Management (DEU) AG	5.72%	Madison Funds	1.67%
Lyxor International Asset Management	5.67%	Catalyst Mutual Funds	1.71%
Commerz Funds Solutions SA	5.54%	Aston	1.93%
Schwab Funds	5.31%	WisdomTree	1.94%
Royce	4.18%	AQR Funds	2.02%

Figure 3. Top and bottom 10 fund families sorted by price elasticity of demand

Conversely, fund families which focus on providing highly differentiated or active strategies tend to benefit from lower price elasticity of demand. Their investors are willing to pay more for these firms' funds because they've chosen them based on some characteristics other than price.

So what might those characteristics be that investors are choosing on with less regard for price? Performance is always a factor when analyzing investor choices, and this is no different. Whether measuring by ratings, alpha to category, or raw returns, we see a nearly monotonic relationship between performance and price elasticity through time. In other words, the better a fund's performance, the more investors are willing to overlook a high expense ratio.

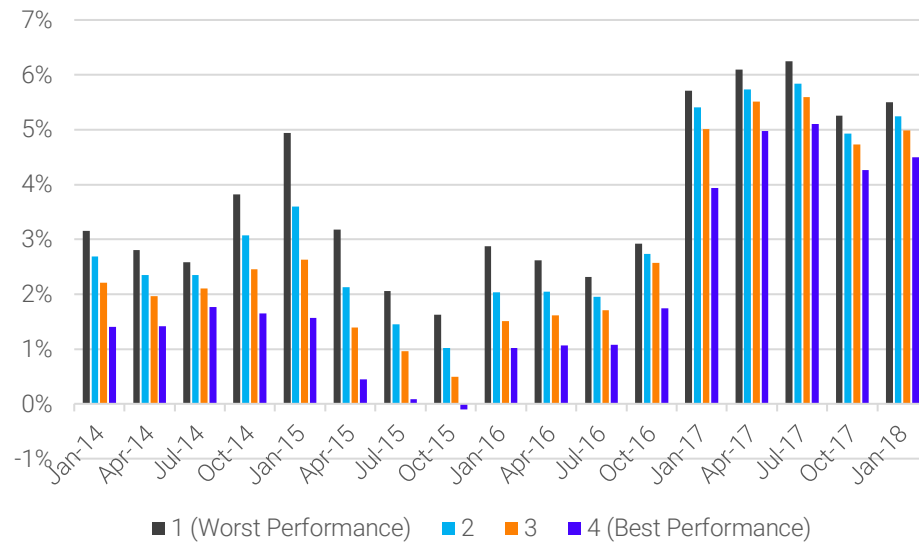


Figure 4. Price elasticity through time for quartiles of investment performance, as measured by a fund's alpha to category

The performance effect is so strong that in parts of 2016, we saw price elasticity turn ever-so-slightly negative for the highest performing quartile – meaning that the relationship between price and quantity demanded became positive and investors demanded more of higher-priced funds.

When we look at risk in isolation, we get a different picture. 2015 and 2016 were years in which the higher risk funds had higher elasticities. In 2017 and now, 2018, that relationship

reversed. Now investors are more price-sensitive among low-risk funds than they are with high-risk funds, potentially indicating a decline in risk-aversion.

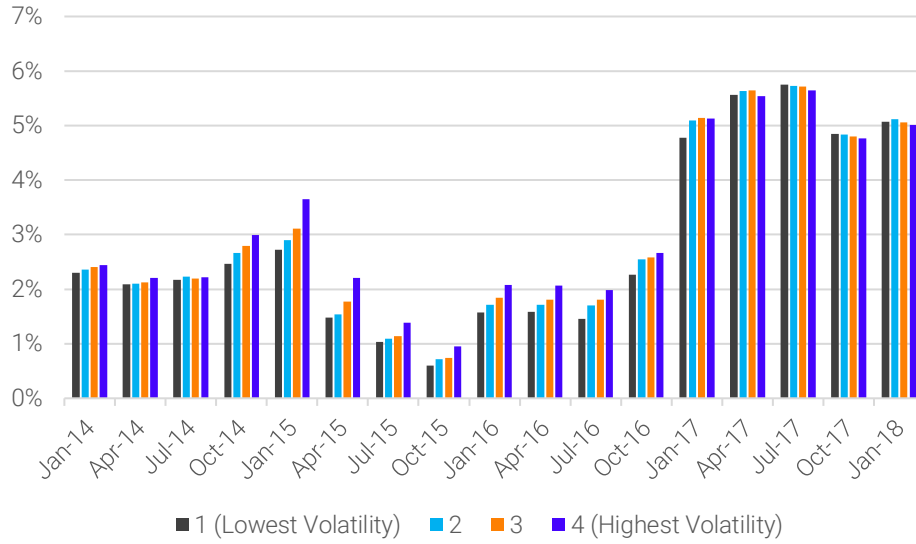


Figure 5. Price elasticity through time for quartiles of fund volatility, as measured by the standard deviation of a fund’s trailing 1-year returns

We see a similar trend on the active-passive spectrum. While the most active funds experienced the greatest price elasticity from 2014-2016, the relationship stalled and reversed in 2017 and so far in 2018.

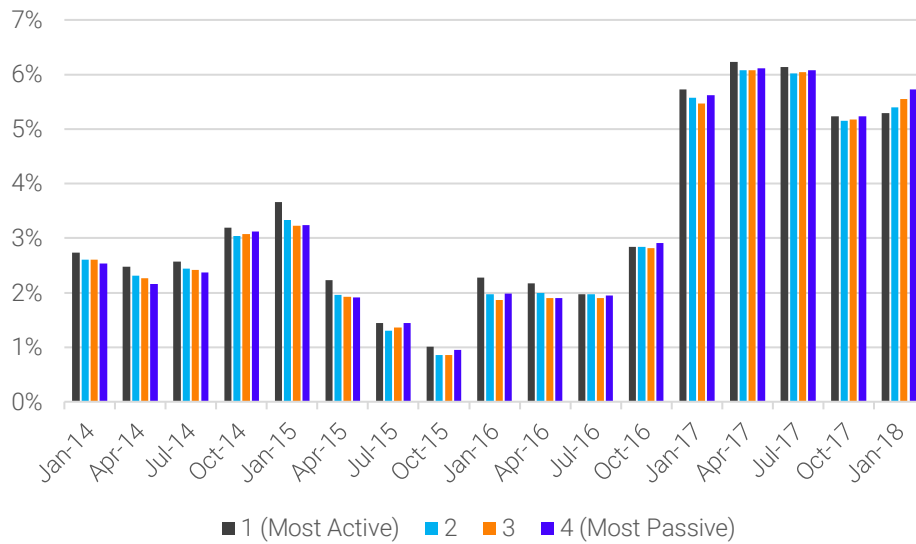


Figure 6. Price elasticity through time for quartiles passiveness, as measured by the r-squared of a fund’s returns regressed against the best fitting index

This could be one of the first signs indicating that the passive investment product landscape is becoming saturated, as the mass influx of passive products overlaps more and more.

Lastly, we see a constant positive relationship between elasticity and price. In other words, the most expensive funds also have the most to gain by lowering their prices, all else equal. It

may also indicate that asset managers with pricing power (low price elasticity of demand) are unaware of it, and therefore not pricing higher accordingly.

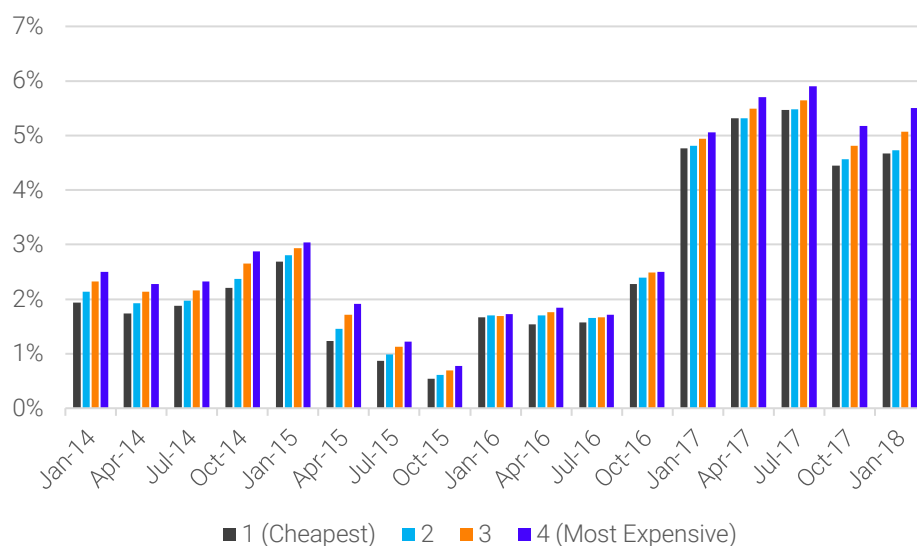


Figure 7. Price elasticity through time for quartiles of prospectus net expense ratio

While the relationships we found above were significant enough to write up, we found no significant relationship between price elasticity of demand and minimum investment requirements, turnover ratio, portfolio concentration, and portfolio allocation to different asset classes.

Conclusion

In aggregate, the investing world has become more price sensitive as investors have become disillusioned with uncertain promises of outperformance in exchange for the certainty high fees. Naturally, asset managers have launched a plethora of low-fee, passive investment products to keep up with these demands.

We may be seeing the first signs that the passive investment product landscape is saturated as price elasticity for passive products is now exceeding that of active products. We also observe a decline in risk-aversion as we see more price elasticity in low-risk funds now than we did in 2016.

Asset managers that understand the price sensitivity of investors, and realize it is not a uniform effect across the industry will have a leg up on less informed competitors. They will be able to price products to achieve the optimal balance of flows and fees, resulting in better long-term outcomes.

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