Executive Summary for “Why is Asset Demand Inelastic?”

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We investigate the substantial gap between high theoretical predictions and low empirical estimates of asset demand elasticities. Classical asset pricing models predict demand elasticities in the thousands, while empirical estimates are typically three orders of magnitude lower, around 1. To reconcile this difference, we decompose the demand elasticity of a mean-variance investor into two key components: "price pass-through", which measures how price movements forecast returns, and "unspanned returns", which captures an asset's distinctiveness relative to others.

Contrary to assumptions in classical models, we find evidence of low price pass-throughs and high unspanned returns in the data. When estimated using monthly U.S. stock returns since 1970, we find the price pass-through to be approximately 0.03 at the monthly horizon, much lower than theoretical assumptions. This brings down the theoretical prediction of demand elasticity by approximately one order of magnitude. More importantly, unspanned returns, computed as the residual expected return of stocks not explained by a linear projection on other assets, are around 0.23% per month for an average stock with positive holdings in a mean-variance portfolio. This is significantly higher than the near-zero values predicted by many theoretical models. Incorporating realistic unspanned return estimates further lowers the demand elasticity prediction by two orders of magnitude. By incorporating our empirical estimates of price pass-through and unspanned returns, we can largely bridge the gap between theoretical predictions and empirical estimates of demand elasticity.

We argue that the bulk of the elasticity gap can be explained by these two factors without appealing to suboptimal investor behavior or market frictions. The remaining difference between our refined theoretical predictions and empirical estimates of around 1 can plausibly be accounted for by additional factors such as transaction costs, liquidity considerations, and investor heterogeneity.

We show that even optimizing mean-variance investors do not trade aggressively given the realistic behavior of returns. Our results offer a clear benchmark for the elasticity of optimizing investors with realistic returns. Our findings suggest that the low empirical estimates of demand elasticity are credible and can be reconciled with optimizing investor behavior once we relax certain restrictive assumptions about price dynamics made in classical models. This underscores the importance of taking into account realistic estimates of price pass-through and unspanned returns when making quantitative predictions about demand elasticities and price impacts. Our decomposition framework provides a useful lens for understanding the drivers of demand elasticity and highlights that it is not a stable structural parameter, but can vary across assets, investors, and time.