Elephants in Equity Markets

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Motivation

- This paper takes on an ambitious and insightful agenda by decomposing price movements in equity markets → several significant implications.

- Novel approach: It stands out in the literature by reinforcing the idea of imperfect elasticity in financial markets.

- Campbell and Shiller decomposition → underlying assumption of perfectly elastic financial markets → equities with identical pecuniary characteristics are interchangeable → leading to instant market clearing.

- In the presence of perfect information, there is little role for stock picking (active investing).

Recent Literature

- Highlights market inelasticity, market clearing delays, and the significance of stock-picking.

- Investors, especially institutions, are subject to various constraints (mandates, trading frequencies) resulting in market clearing delays.

- This body of work calls for more empirical evidence supporting the non-trivial nature of market clearing and equity picking/active investing.

- Enter "Elephants in the Equity Markets."

Motivation

What determines equilibrium asset prices? Quantity (demand) also matters.

- The paper provides new empirical findings using a novel decomposition of equity price growth rates based on market clearing conditions at ISIN level.

- (i)Emphasis on market inelasticity and (ii) critical role for stock-picking.

- Constrained institutional investors drive price changes.

First Contribution

- At the micro level, stock-picking contributes substantially to the "common component" of price movements.

- The constructed sample of mutual funds explains 90% of the variation in individual & aggregate stock prices suggesting a limited role for individual investors.

- Stock-picking is also evident at the currency and market levels. Capital tends to be rebalanced across borders in EMs, while within-market rebalancing is more dominant in developed economies.

- Findings underscore the need to incorporate these characteristics into theoretical models of financial markets.

Scaling Up Observations

Coverage ratios range from 1% to 21%.To scale up sample observations to approximate the total market,the paper assumes:

- The within-investor type population average can be approximated by the within-investor type sample average.
- For a given ISIN, the sample-to-population ratio of average holdings is consistent across investor types.

Challenges to Scaling Up Assumptions

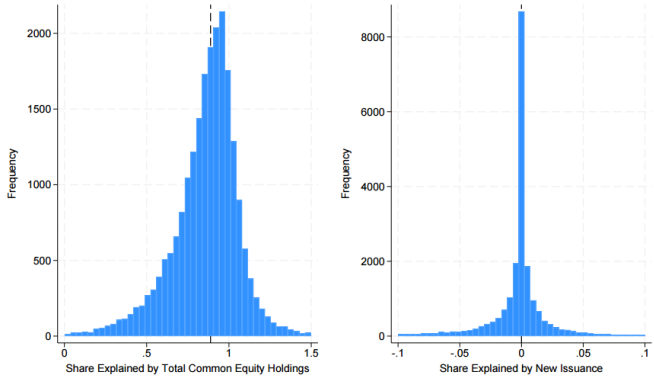
Suggestion: Provide direct evidence about the validity of the assumptions.

- **Second assumption:** Assume that the coverage ratio is consistent across investor types but this may not be the case. In reality, the coverage ratios across different markets vary (Table 1).
  - With higher AUM, passive funds possibly have higher data coverage than active funds?
  - Suggestion: Provide more detailed comparison of data coverage across different investor types.
- **First assumption:** If the data coverage is not consistent across different investor types, the sample average may not approximate the population average.
  - More observations from higher AUM funds within a group (currency, industry, market) may lead to upward biased sample averages.

Total Common Component

A large share of the distribution of $\beta^{p,\Delta d}$ is close to 1, indicating that the total common component of equity holdings explains a significant portion of the variation. (The left graph)

Figure 6: ISIN-Level Equity Price Growth Rate Decomposition: Histograms



Total Common Component by Markets

Table 2: ISIN-Level Equity Price Growth Rate Decomposition: Panel Regressions

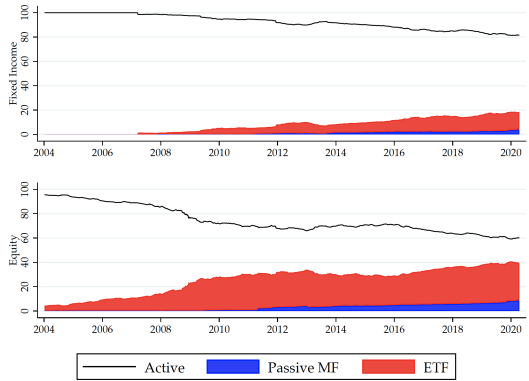
Currency	Δd_t^g	$\Delta d_t^{c,j}$	$\Delta d_t^{s,j}$	$\Delta d_t^{I,j}$	$\Delta d_t^{NF,j}$	$\Delta d_t^{Resid,j}$	Δd_t^j
AUD	0.780***	0.704***	-0.064***	0.008***	0.133***	0.206***	-0.010***
BRL	0.795***	0.745***	-0.118***	0.013***	0.155***	0.199***	-0.007**
CAD	0.773***	0.678***	-0.049***	0.009***	0.134***	0.221***	-0.002
CHF	0.870***	0.646***	0.003**	0.003**	0.217***	0.122***	-0.008**
CLP	0.870***	0.737***	-0.105***	0.024***	0.216***	0.119***	-0.005
CNH	0.907***	0.768***	-0.014***	0.026***	0.128***	0.091***	-0.001
COP	0.880***	0.852***	-0.191***	0.020***	0.199***	0.097**	-0.006
CZK	1.020***	0.799***	-0.104**	0.027*	0.298***	-0.016	0.003
DKK	0.845***	0.661***	-0.013***	0.012***	0.185***	0.142***	-0.013**
EGP	0.892***	0.659***	0.072***	0.010***	0.152***	0.087***	-0.020***
EUR	0.845***	0.647***	-0.029***	0.017***	0.209***	0.144***	-0.009***
GBP	0.786***	0.638***	-0.008***	0.005***	0.151***	0.204***	-0.006*
HKD	0.890***	0.681***	0.012***	0.016***	0.181***	0.104***	-0.005*
HUF	0.905***	0.754***	-0.113***	0.010	0.254***	0.096**	0.001
IDR	0.856***	0.769***	-0.066***	0.012***	0.141***	0.144***	0.002
ILS	0.824***	0.669***	-0.040***	0.017***	0.178***	0.155***	-0.020**
INR	0.786***	0.663***	-0.043***	0.007***	0.160***	0.216***	0.002
JPY	0.924***	0.664***	0.049***	0.006***	0.204***	0.074***	-0.002**
KRW	0.927***	0.809***	-0.042***	0.003***	0.157***	0.067***	-0.004***
MXN	0.825***	0.745***	-0.110***	0.021***	0.170***	0.170***	-0.003
MYR	0.846***	0.655***	-0.045***	0.017***	0.219***	0.145***	-0.008**
NOK	0.789***	0.685***	-0.054***	0.011***	0.146***	0.209***	-0.004
NZD	0.834***	0.706***	-0.062***	0.012***	0.179***	0.161***	-0.004
PHP	0.905***	0.727***	-0.027***	0.015***	0.190***	0.090***	-0.003
PLN	0.834***	0.740***	-0.098***	0.015***	0.177***	0.164***	-0.002
RUB	0.894***	0.797***	-0.096***	0.019***	0.174***	0.105***	-0.001
SEK	0.880***	0.696***	-0.029***	0.023***	0.190***	0.121***	0.002
SGD	0.888***	0.662***	-0.047***	0.019***	0.253***	0.107***	-0.005
THB	0.877***	0.683***	-0.052***	0.020***	0.226***	-0.084**	-0.205***
TRY	0.896***	0.770***	-0.089***	0.020***	0.195***	0.104***	0.000
TWD	0.926***	0.716***	-0.030***	0.014***	0.227***	0.072***	-0.000
USD	0.802***	0.601***	0.001***	0.010***	0.190***	0.188***	-0.006***
ZAR	0.805***	0.725***	-0.101***	0.017***	0.163***	0.182***	-0.012*

Note: In this table we report the coefficients from panel regressions of the total "common" component of equity

Variance Decomposition: Contribution by Components to Price Growth

- "Active" investing and "stock picking" prevalent. The estimates are higher for emerging markets.
- Wealth effect from net-of-fee returns is significant & non-trivial.
- For most currencies, $\Delta d_{s,j}$ enters negatively $\rightarrow$ appreciation when stock prices rise.
- USD, JPY, CHF (safe havens), HKD, and EGP (pegged to USD) depreciate when stock prices rise.
- Flow effect is significant but relatively small.
- The idiosyncratic residual component explains the variation not accounted for by common factors.

Fund-level Heterogeneity: Active versus Passive Funds in EMs



- Fixed income funds are dominated by active mandates.
- Equity funds are a more even mix of active and passive funds.

- Passive (index) funds react up to an order of magnitude more to sentiment shocks (Chari, Dilts Stedman, Lundblad (2023)).

Micro versus Macro

- A related stylized fact (Koijen and Yogo (2019)) is that the macro-inelasticity contradicts micro-elasticity.

- The paper offers a potential explanation from mutual funds, the elephants in the market: Within versus cross border capital rebalancing.
  - Developed countries: price changes are associated with less volatility in capital flows because micro-level reallocations cancel each other out ($\beta^{\omega}_{CrossCov} < 0$) $\rightarrow$ wealth effect contribution.
  - Emerging Markets: investors balance across borders.

- This explanation naturally leads to a cross-sectional comparison of financial market elasticities across countries, where the paper predicts higher macro elasticity in emerging markets.

- An intriguing question is whether this elasticity arises from currency bias, a lack of variety in equity markets, or other systemic factors.

Concluding Remarks

- This paper's insights on price movements and stock-picking behavior contribute to a growing body of literature that challenges the assumption of perfect elasticity in financial markets.

- By focusing on the dynamics of institutional investors and their constraints, the paper opens up new avenues for understanding price formation in modern financial markets.