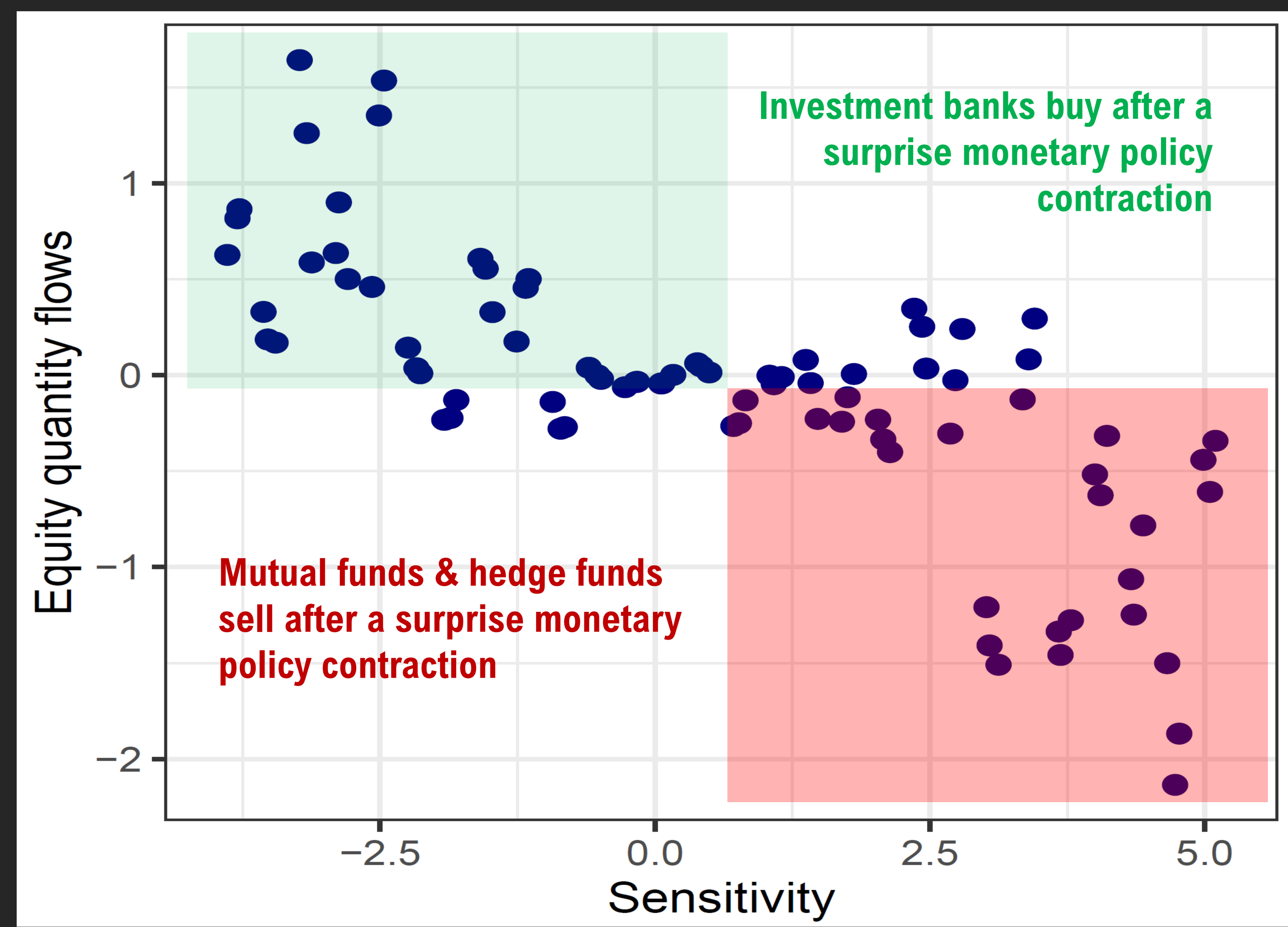
# *Monetary Transmission in Equity Markets:* *Evidence from Financial Intermediaries*

**Abstract:**
We develop a novel theoretical framework and provide direct empirical evidence of equity flows across financial intermediaries due to monetary policy. We build an intermediary asset pricing model where a household delegates wealth between a bank and mutual fund. The model predicts that contractionary monetary policy triggers equity outflows from mutual funds, amplifying asset price declines due to investors' sensitivity to past returns. Using institutional investor portfolio holdings data, we confirm these predictions. Contractionary shocks lead to equity being reallocated from mutual funds to banks. Moreover, mutual funds with more return-sensitive investors experience larger outflows, while stocks owned by these investors exhibit greater price declines.

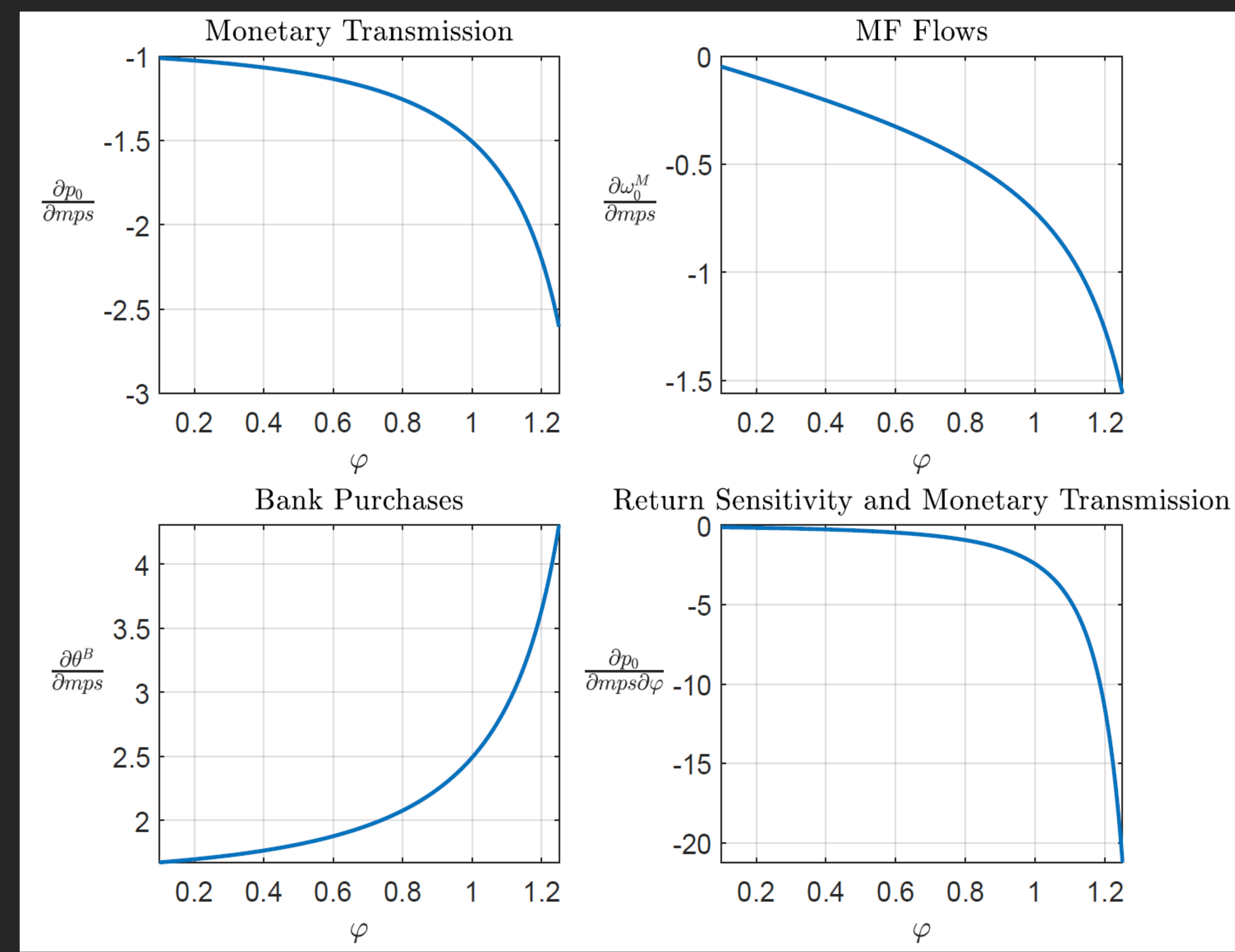
## Monetary policy transmits to equity markets through mutual funds & hedge funds with performance-sensitive investors who overreact to contractionary, mean-reverting monetary policy shocks by liquidating equity holdings

- **Overshooting by investors on-impact, with reversal in the subsequent quarter**
- **Investment banks profit by demanding a premium for market-making, by absorbing flows from mutual funds investors and selling for profit in the subsequent quarter**
- **Stocks with more performance-sensitive investors experience greater price volatility due to monetary policy shocks**




This figure plots the cross-sectional relationship between fund-level investor performance-sensitivity (Berk and Green (2004)) on the x-axis, and fund-level quantity flows due to a contractionary monetary policy shock on the y-axis. Positive (Negative) x-axis values imply higher (lower) sensitivity. Positive (Negative) y-axis values imply inflows (outflows). The scatterplot is binned such that each point captures a similar number of fund managers in our sample.

<u>We report a negative correlation:</u> **Fund managers with more (less) performance-sensitive investors sell (buy) equities after a surprise monetary policy contraction.**




This figure plots a numerical example of our model dynamics. Each panel has a common x-axis, which plots the investor sensitivity to fund manager returns parameter ($\varphi$). The top-left panel plots the effect of a contractionary monetary policy shock on equity prices. The top-right panel plots the mutual fund equity flows. The bottom-left panel plots investment bank equity flows. The bottom-right panel plots the second derivative of the top-left plot. We match all four dynamics in the data.

**Data:**
- Equity holdings for the universe of institutional investors (fund managers) reporting 13-F between 1988Q2-2019Q4.
- CRSP for stock-level characteristics.
- Granular characteristics on mutual funds: S12 Mutual Fund Database.
- Monetary Policy Shocks from Bauer and Swanson (2023).

**Model:**
- *New Keynesian* supply-side.
- Demand: *risk-centric model with financial intermediary-based asset pricing model.*
- Household delegates wealth between mutual funds and banks by forming beliefs over financial returns.
- Intermediaries invest in equities or risk-free bonds, sans agency frictions.
- Central bank holds output at potential though setting the risk-free rate (with noise).

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