

Monetary Policy Communication, Policy Slope, and the Stock Market

Andreas Neuhierl and Michael Weber

Matteo Leombroni¹ Andrea Vedolin²

¹Stanford University and ECB ²Boston University, NBER and CEPR

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Motivation

Bernanke and Kuttner (2005): MP Shocks and Equity Returns

| Regressor | full sample | | excluding outliers | |
|-----------------------|------------------|------------------|--------------------|------------------|
| | (a) | (b) | (c) | (d) |
| Intercept | 0.23 (2.58) | 0.12 (1.35) | 0.17 (2.14) | 0.11 (1.37) |
| Raw funds rate change | -0.61 (-1.06) | | -0.11 (-0.31) | |
| Expected change | | 1.04 (2.17) | | 0.67 (1.62) |
| Surprise change | | -4.68 (-3.03) | | -2.55 (-2.79) |
| R2 | 0.007 | 0.171 | | 0.049 |

⇒ -4.68% 1-day return in response to a 1% point rate change

This Paper:

- Kuttner surprises are **small**. Monetary policy decisions happen throughout the year.
- Whole **future path** of monetary policy is important. Regress weekly changes in three-month futures on changes in one-month futures. The residual from this regression is a purified measure of path, slope_t .

Main Findings

| | | | | | |
|-----------|------------------|------------------|------------------|------------------|------------------|
| Intercept | 0.12 (0.08) | 0.13 (0.09) | -0.47 (0.36) | -0.02 (0.29) | 0.12 (0.09) |
| Slope | -7.70 (-2.07) | -6.96 (-1.98) | -6.88 (-1.99) | -6.85 (-1.97) | -6.35 (-1.96) |
| R | | -0.09 (0.05) | -0.08 (0.05) | -0.08 (0.05) | -0.11 (0.05) |
| DP | | | 36.79 (20.13) | | |
| VIX | | | | 0.01 (0.02) | |
| MP | | | | | -11.76 (2.91) |
| R2 | 0.019 | 0.026 | 0.030 | 0.026 | 0.056 |

- A positive slope, i.e., expectations of faster future monetary policy tightening, predicts negative stock returns.
- Explains around 2% of weekly variation and predictive power is particularly strong during times of high uncertainty.
- Speeches of chair and vice chair predict slope factor.

Comment 1: Identification of Monetary Policy Shocks

Identification of Monetary Policy Shocks

- Measure of monetary policy shocks is constructed from **weekly** changes in the one- and three-month federal funds futures rates.
- Authors argue that ‘‘the whole future path of monetary policy being important for the real economy and that the FOMC releases most of the news about monetary policy **outside** of scheduled FOMC meetings throughout the year’’.
- Issue: Monetary policy is endogenous.
- Authors:
 - Use lagged returns to overcome endogeneity and reverse causality
 - Control for macroeconomic news
- However:
 - Financial markets react to a huge amount of information ...
 - ... endogeneity issue remains key problem

A Sanity Check: Persistence

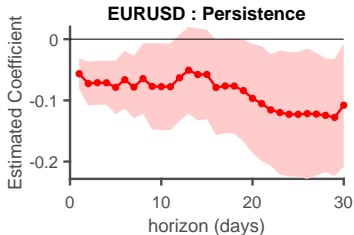
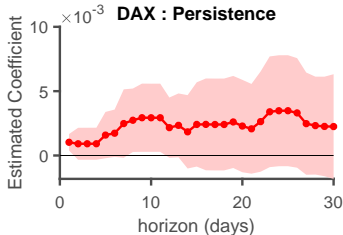
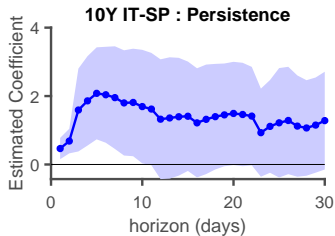
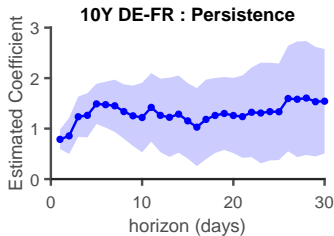
- Authors argue that market reaction could be delayed due to **slow-moving capital**.
- But how persistent are effects of monetary policy on asset prices? (Brooks, Katz and Lustig 2019)
- Can construct monetary policy shocks from HF risk-free rates and test persistence via long-horizon regressions:

$$rx_{t+h} = \alpha_h + \beta_h \times \text{MP shock}_t + \epsilon_{t+h},$$

where rx_{t+h} is the cumulative h -horizon return of equity index, etc.

- Given that this is an ECB event, we can estimate MP shock_t from OIS and swap rates in the Eurozone.

Persistence of MP Shocks on Asset Prices in the Eurozone

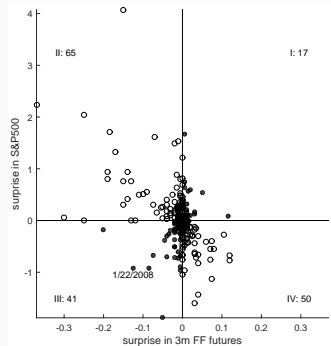


⇒ Very persistent on bonds, not so much on equity.

Comment 2: Focus on Risk-Free Interest Rates Only

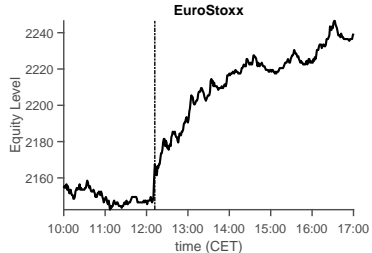
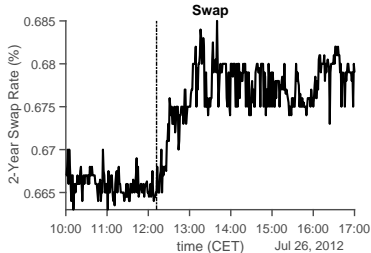
What Asset Prices?

- Authors focus exclusively on Fed funds rate. Sample ends in 2007. However, evidence in literature shows that since crisis other dimensions of monetary policy matter.
- Nakamura and Steinsson (2018): Fed Information Effect.
- Jarociński and Karadi (2019): Stock-bond correlation informative about types of shocks.



Source: Jarociński and Karadi (2019)

Reaction of Asset Prices Around Speeches: July 26th 2012

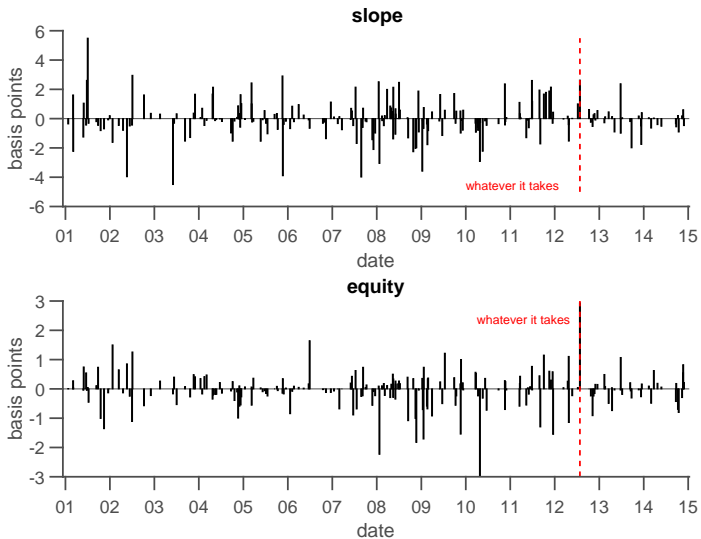


- Swap reaction very small, **dwarfed** by reaction in equity markets!
- ‘ ‘These **premia** have to do, as I said, with default, with liquidity, but they also have to do more and more with convertibility, with the risk of convertibility.’ ’

Mario Draghi, July 26th 2012

- Exclusive focus on risk-free assets may not be enough...

President Speeches Shocks



Conclusions

- How should we think about persistence of monetary policy?
- What asset prices are best suited to capture communication?
- I enjoyed reading this paper very much!