Discussion of Paul Hubert: "State-dependent effects of monetary policy"

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Summary

- Interaction of BoE Monetary Policy (MP) Committee decisions and Inflation Report (IR)

- Key result: IR affects the effect of MP committee decisions (on, e.g., inflation expectations)

- Based on data October 2004 - July 2015, 43 IR reports

Event Study

- Regress changes in inflation expectations on pairs of MPC and IR surprises

$$\Delta y_w = \alpha + \beta_1 \Delta i(MP_w) + \beta_2 \Delta i(IR_w) + \beta_3 \Delta i(MP_w) \times \Delta i(IR_w) + \varepsilon_t$$

where $\Delta i(\cdot)$ = daily change of nominal 1yr gilt yield, Δy_w = change in inflation swaps (1yr-5yr), multi-day window (3 specifications)

- Result: $\beta_3 < 0$ and significant
- Only if $\Delta i(IR_w) > 0$, we get after $\Delta i(MP_w) > 0$ that $\Delta y_w < 0$

Inflation Report

- Includes forecast conditional on path for Bank Rate implied by market rates *prior* to policy meeting

- Market expectations include expectation about systematic part of MPC decisions

- IR is published about 4 days after MP (during sample period)

- With knowledge of central bank's information from IR and market expectations, might back out unsystematic MP from MPC decisions

Release Sequence vs. Information Content

- Are IR surprises correlated with central bank information shock component of MPC decision (e.g. Jarocinski and Karadi, 2019)?

- Is IR report complete, or is MPC decision based on IR $+X$?

- Is IR report frozen pre-MPC, or is IR based on MPC information $+X$?

Policy Announcement within the Inflation Report

Example: Inflation Report - August 2013

- The MPC's policy guidance: "... the MPC intends not to raise Bank Rate from its current level of 0.5% at least until the Labour Force Survey headline measure of the unemployment rate has fallen to a threshold of 7%, subject to the conditions below."

- Opening Remarks by the Governor at IR press conference:"... the MPC is *today* announcing explicit state-contingent forward guidance."

Table 2 - smallest window

	Smallest window (on IR day only)		
Monetary surprises	0.617	0.596**	0.385*
	[0.41]	[0.28]	[0.20]
IR surprises	0.404	0.458	0.338***
	[0.96]	[0.33]	[0.09]
Monetary surprises * IR surprises	4.247	-6.993***	-5.856***
	[4.69]	[2.23]	[1.21]
Macro data releases	Yes	Yes	Yes
N	130	130	130
R²	0.36	0.40	0.32

- Offsetting of linear terms, nonlinear interaction
- Interpretation hinges on size of surprises
- Standard deviation of IR surprises and MPC surprises similar

$\beta_1 > 0, \, \beta_3 < 0$

- Is $\Delta i(MP_w)$ in MPC window correlated with its counterpart in IR window? Slow adjustment?

- How large are the average $\Delta i(MP_w)$, $\Delta i(IR_w)$ relative to $\Delta i(MP_w) \times \Delta i(IR_w)$? Does net effect of the 4 MPC-IR pairs obtain qualitatively for all three window specifications?

- Is sign of $\Delta i(IR_w)$ correlated with, e.g., business cycle?

How does MPC surprise affect IR impact?

Regression for IR days only, conditional on relative sign of MP/IR surprise (IR window only)

$$
\begin{aligned}
\Delta y_w = {}& \alpha + \beta_1 \Delta i(IR_w)\mathbb{1}(sgn(\Delta i_w(MP_w)) = sgn(\Delta i_w(IR_w))) \\
+{}& \beta_2 \Delta i(IR_w)\mathbb{1}(\Delta i_w(MP_w) > 0 \wedge \Delta i_w(IR_w) < 0) \\
+{}& \beta_3 \Delta i(IR_w)\mathbb{1}(\Delta i_w(MP_w) < 0 \wedge \Delta i_w(IR_w) > 0) \\
+{}& \beta_4 \Delta i(IR_w) \times \Delta i(MP_w)\mathbb{1}(\cdot) + \ldots + \varepsilon_t
\end{aligned}
$$

separate windows for MP and IR, confirmation vs. confusion

Conclusion

1 Nice, thought-provoking paper, highlights that various forms of CB communication (and MP announcements) interact in non-trivial way

2 MP effect is state-dependent; central bank might be able to influence the state!

3 Explore alternative interpretations