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Chung, Herbst, and Kiley, "Effective Monetary Policy Strategies in New Keynesian Models: A Re-examination"

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Paper content

- Compares sticky-price (SP) and sticky-information (SI) models
- Empirical support
- Response to current and anticipated shocks, and the ZLB
- Effective monetary policies
 - Alternative instrument and targeting rules
 - Performance for different shocks, w/o and w/ ZLB
 - Policies (including forward guidance) under the ZLB
- Lessons for policy and future research
 - Many things similar for SI and SP: Price-level targeting good
 - Effects of anticipated shocks and ZLB different: Implications for forward guidance, missing disinflation, new shocks, etc.
 - More diversity among CB models desirable



Comments

- Forward- or backward-looking model matters: Not new
 - Policy preemptive or not matters
- SI hardly robust to new events and policies
 - Degree of forward-lookingness depends, and may vary over time
- CB learning may reveal SP vs. SI
- Conceptual framework
- "Forecast targeting" rather than simple instrument rules
 - Most robust policy of all: Uses all relevant information, including judgment, model uncertainty, ZLB, etc.



Forward- or backward-looking model matters: Not new

Figure 1. Monetary Policy with and without Judgment: Backward-Looking Model



Svensson (2005), "Monetary Policy with Judgment: Forecast Targeting," *IJCB* 1(1) 1-54.

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Forward- or backward looking model matters: Not new

Figure 2. Monetary Policy with and without Judgment: Forward-Looking Model



Forward- or backward looking model matters: Not new

- Economy's response to future shocks depends on FL/BL
- Optimal policy is preemptive
- Inferior outcome if policy responds mechanically to current variables
- Applies to ZLB situations

Forward- or backward looking model matters: Not new

- Forward-lookingness/information collection, not only about aggregate supply
- Also aggregate demand, investment, long interest rates, exchange rate, asset prices, etc.



SI hardly robust to new events and policies

- Degree of forward-lookingness and information collection endogenous: Depends, and may vary over time
- Crises, CB communication, new policy of forward guidance, etc. may affect degree of forward-lookingness and information collection
- Also, for SP, Calvo parameter may be affected in some situations





Learning may reveal SI vs. SP

- CB learns from economy's response; continuous reestimation and updating
- SI and SP very different, should show
- But actual economies in between, a matter of degrees



Conceptual framework, classification, terminology

- Targeting rules, simple/optimal instrument rules, loss functions
- Inflation targeting $L_t = (\pi_t \pi^*)^2 + \lambda (y_t y_t^*)^2$ (1)
 - Strict: $\lambda = 0$
 - Flexible: $\lambda > 0$
- Price-level targeting $L_t = (p_t p_t^*)^2 + \lambda (y_t y_t^*)^2$ (2)
- Targeting rules: $(\pi_t \pi^*) + \lambda(y_t y_t^*) = 0$ (3) Qvigstad Rule! $(p_t - p_t^*) + \lambda(y_t - y_t^*) = 0$ (4)
- Nominal income (level) targeting: Loss function? $L_t = [(p_t + y_t) - g_t^*]^2$ (5)
- Or targeting rule? $(p_t + y_t) g_t^* = 0$ (6)
- (3) with $\lambda = 1$: "Strict IT"?
- (4) with $\lambda = 1$: "Flexible price-level targeting"?
- "Targeting" vs. "responding to"



"Forecast targeting" vs. (instrument) rules

Paper examines performance for some simple instrument and targeting rules

	Sticky Prices			Sticky Information		
	π	$y - y^f$	ΔR	π	$y - y^f$	ΔR
Estimated rule (eq. 14)	1.04	4.43	0.40	1.54	7.41	0.39
Inertial Taylor (1999) (eq. 16)	6.71	3.69	0.65	10.01	5.47	0.67
Nominal Income targeting (eq. 18)	1.18	4.20	2.36	1.78	6.99	5.88
Nominal Income rule (eq. 19)	1.17	4.22	0.25	1.76	6.98	0.31
Optimal rule (inflation)	1.47	4.11	0.41	3.11	5.95	0.05
Optimal rule (price level)	1.50	4.08	0.31	3.31	5.88	0.03
Optimal Policy	1.49	4.07	0.30	2.68	6.03	0.47

Table 9: Standard deviations of selected variables, under sticky prices and sticky information. $\pi = 4$ -quarter change in prices (annual rate). Gap = output gap to flex price equilibrium. R = federal funds rate (annual rate).

- Commitment to particular simple instrument rule, regardless of what happens?
- Disregards information, not optimal
- Does any CB behave that way? (Cf. Kohn, Woodford)
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Actual policy is closer to "forecast targeting"

- Set policy-rate path such that corresponding forecasts of target variables (inflation and unemployment) "look good" (fulfill objectives)
- Forecasts are conditional on all relevant information, including inflation expectations, ZLB, model uncertainty (several models), judgment, etc.
- Policy responds to all new information that affects the forecasts of target variables
- Must be the most robust policy of all!



Forecast targeting: Monetary policy alternatives (Riksbank Feb 2013 mtg). Not single-model forecasts



Forecast targeting: Yellen (2012)

