

Discussion of paper by Spencer Dale, Athanasios Orphanides and
Pär Österholm on
**“Imperfect Central Bank Communication:
Information versus Distraction”**

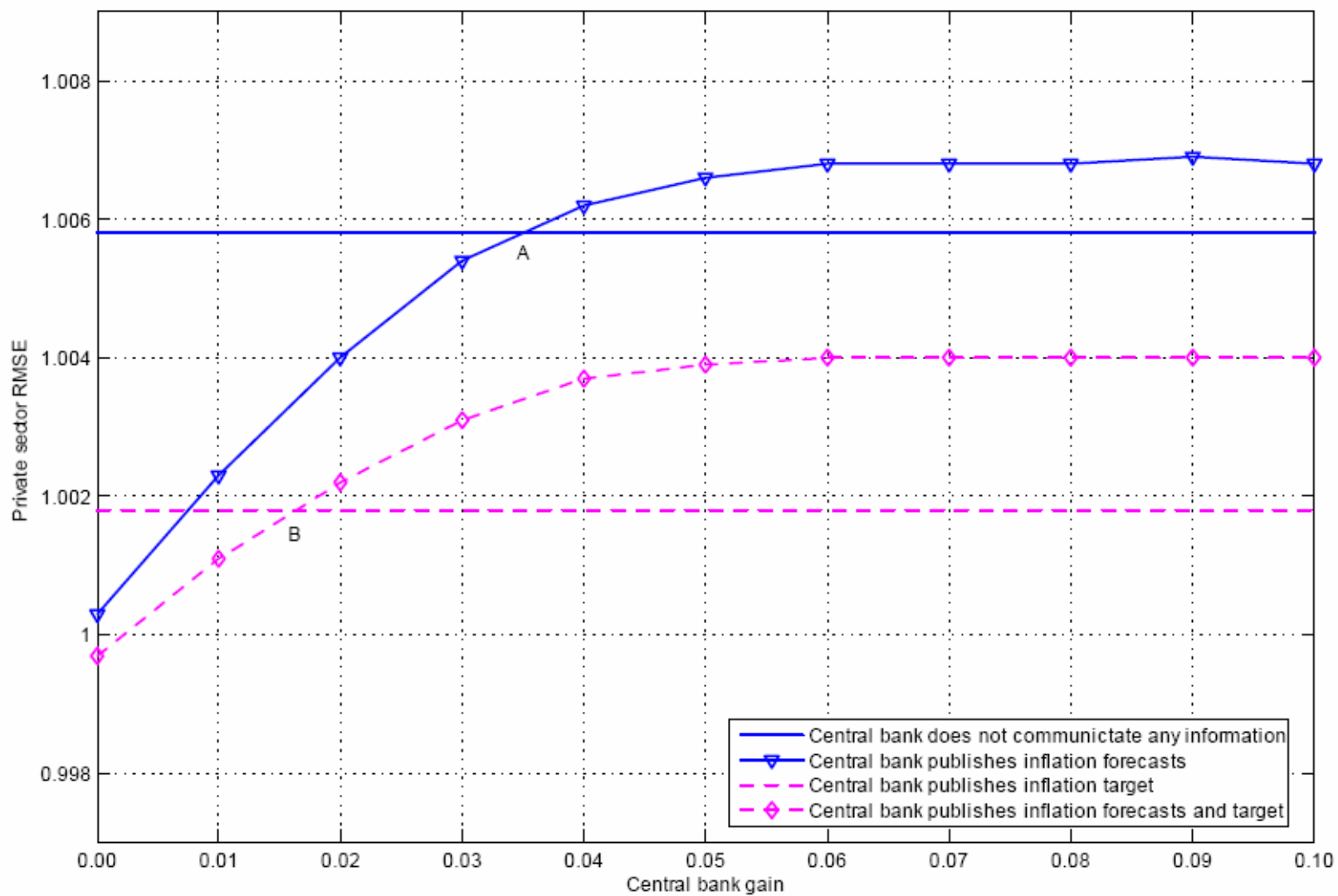
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The usual disclaimers apply.

I. Contribution

- Monetary policy as the art of “managing expectations”
 - e.g. Woodford (2006), Blinder et al. (2008) → key role for central bank (CB) communication
- Two key points of paper
 - Benefit of CB communication does not depend (only) on *absolute* precision but on *relative* precision of CB information – relative to private sector (PS) information (see Morris & Shin 2002, 2006; Svensson 2006)
 - Benefit of CB communication depends on precision relative to precision of other CB communication tools
→ communication strategy

Contribution



Contribution

- Why it is important
 - CB communication – more information not always beneficial
 - CB needs to think in terms of an overall strategy, not about individual pieces of information
 - What, how much information? (E.g. minutes, voting)
 - When? (E.g. forward guidance)
 - Who? (Committee versus individual)

Discussion

- A few queries about model
- Is there empirical support for the model?
- Multiple communication *tools* versus multiple CB *objectives*
 - Preferred CB communication strategy depends not only on relative precision of various communication tools, but also on relative importance of various CB objectives
 - May help explain stark differences in communication strategies across CBs today

2. Model query

Lucas supply function (1)

$$\pi_t = \phi \pi_{t|t-1}^e + (1 - \phi) \pi_{t-1} + \alpha x_t + e_t$$

CB reaction function (2)

$$x_t = -\theta (\pi_{t-1} - \pi^*)$$

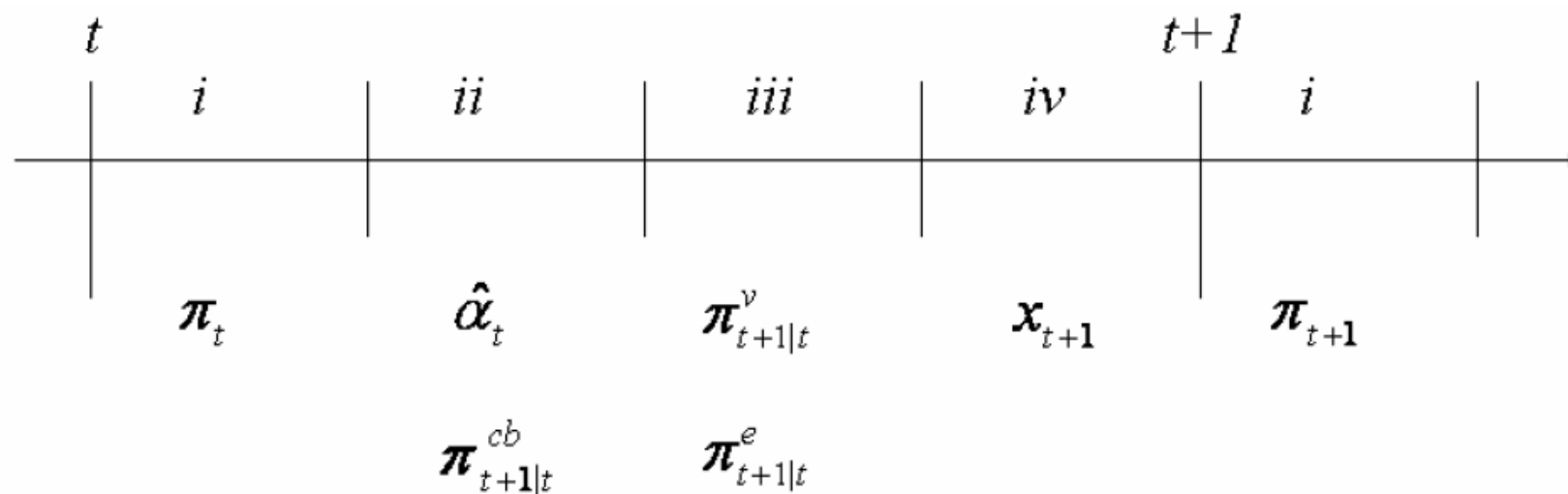
Private sector (PS) information formation (11)

$$\pi_{t+1|t}^e = \gamma_t \pi_{t+1|t}^v + (1 - \gamma_t) \pi_{t+1|t}^{cb}$$

Weight of CB forecast in private sector forecast (12)

$$\pi_t - \pi_t^{cb} = g_t \left(\pi_{t|t-1}^v - \pi_t^{cb} \right) + \chi_t$$

Timing in the model



Inflation is determined.

Central bank re-estimates model, generates inflation forecast and potentially publishes it.

Private sector re-estimates model, generates inflation forecast and forms inflation expectation.

Central bank sets the one-period ahead output gap.

Model query

- Backward-looking nature of CB reaction function
 - CB decisions are assumed as perfectly predictable
- CB objective in the model assumed to be exclusively to help improve PS forecast
 - CB is indifferent to how much weight PS attaches to $\pi_{t|t-1}^{cb}$
 - But $\pi_{t|t-1}^e$ affects actual inflation and hence CB ability to meet inflation target
- What if CB primary objective is anchoring of inflation expectations?
 - Time consistency issue to give true $\pi_{t|t-1}^{cb}$

3. Examples of central bank practices

Cases where CBs prefer not to release information

- Restrictions on communication by committee members

- One-voice principle (ECB, Norges Bank, ...)
- “The Executive Board has come to the conclusion that there is not normally any reason to indicate how the repo rate will be set in speeches and press releases issued prior to the monetary policy meetings. Our assessment is that it is enough to signal our intentions clearly in connection with the seven monetary policy meetings held every year.”

Riksbank First Deputy Governor Irma Rosenberg, May 11, 2007

- Purdah period (Fed, BoE, ECB,...)

- challenge is often not whether or not to communicate information that is imprecise, but how to communicate CB information *precisely*

4. Empirical evidence

- Focus here on how CB communication affects predictability of CB decisions (not inflation)
- Empirical test for the Federal Reserve, 1994–2004 (Ehrmann and Fratzscher 2007)
 - Does the (absolute) precision of CB information affect PS forecasts of CB decisions?
 - Does sign of depend on precision of PS information?
 - Does it depend on attention paid (or nature of attention) by markets ?

$$z_{W,t} = k + \lambda z_{\alpha,t} + \mu z_{\beta,t} + v_t$$

Empirical evidence

- **CB signals' precision and market attention**
 - Dispersion of FOMC's inter-meeting communication
 - Frequency of communication
 - Market reaction (3m TB rates) to FOMC statements
 - Communication during 'purdah' period
- **Private signals' precision**
 - CPI and GDP forecast dispersion and 3m TB rate volat.

Short-term predictability

<i>Tobit estimator</i>	(1)	(2)	(3)
A. PUBLIC SIGNALS - CENTRAL BANK COMMUNICATION			
Precision:			
Frequency of communication (<i>high α</i>)	0.009 *	0.009 **	
Dispersion among committee members (<i>low α</i>)	-0.057 ***	-0.054 ***	
Dispersion with committee releases (<i>low α</i>)	0.003	0.005	
Relevance of beauty contest:			
Size of communication effects (<i>high r</i>)	-0.086	-0.119 **	
Communication in purdah period (<i>high r</i>)	-0.034 **	-0.030 *	
B. PRIVATE SIGNALS			
CPI forecast dispersion	0.014		0.130
GDP forecast dispersion	-0.125 **		-0.149 **
Pre-event interest rate volatility	0.002		-0.010 *
# of observations	80	80	80

Medium-term predictability

<i>Tobit estimator</i>	(1)	(2)	(3)
A. PUBLIC SIGNALS - CENTRAL BANK COMMUNICATION			
Precision:			
Frequency of communication (<i>high</i> α)	0.029 ***	0.029 ***	
Dispersion among committee members (<i>low</i> α)	-0.091 *	-0.120 **	
Dispersion with committee releases (<i>low</i> α)	0.063 **	0.035	
Relevance of beauty contest:			
Size of communication effects (<i>high</i> r)	-0.151	0.043	
Communication in purdah period (<i>high</i> r)	-0.031	-0.015	
B. PRIVATE SIGNALS			
CPI forecast dispersion	-0.587 *		-0.113
GDP forecast dispersion	-0.538 **		-0.406 *
Pre-event interest rate volatility	-0.020		-0.023 *
# of observations	44	44	44

State-dependence, short-term predictability

	x _t : interest rate volat.	
	coef.	p-value
Precision:		
Frequency of communication (<i>high</i> α)		
<i>when high noise of private signals</i> x_t (γ_1)	0.017 ***	0.066
<i>when low noise of private signals</i> x_t (γ_2)	0.009 **	
Dispersion among committee members (<i>low</i> α)		
<i>when high noise of private signals</i> x_t (γ_1)	-0.031	0.062
<i>when low noise of private signals</i> x_t (γ_2)	-0.075 ***	
Dispersion with committee releases (<i>low</i> α)		
<i>when high noise of private signals</i> x_t (γ_1)	0.183 ***	0.000
<i>when low noise of private signals</i> x_t (γ_2)	-0.003	
Relevance of beauty contest:		
Size of communication effects (<i>high</i> r)		
<i>when high noise of private signals</i> x_t (γ_1)	0.009	0.221
<i>when low noise of private signals</i> x_t (γ_2)	-0.129 *	
Communication in purdah period (<i>high</i> r)		
<i>when high noise of private signals</i> x_t (γ_1)	-0.028	0.932
<i>when low noise of private signals</i> x_t (γ_2)	-0.030	

State-dependence, medium-term predictability

	x _t : interest rate volat.	
	coef.	p-value
Precision:		
Frequency of communication (<i>high</i> α)		
<i>when high noise of private signals</i> x_t (γ_1)	0.085 ***	0.003
<i>when low noise of private signals</i> x_t (γ_2)	0.033 ***	
Dispersion among committee members (<i>low</i> α)		
<i>when high noise of private signals</i> x_t (γ_1)	0.194 *	0.005
<i>when low noise of private signals</i> x_t (γ_2)	-0.138 **	
Dispersion with committee releases (<i>low</i> α)		
<i>when high noise of private signals</i> x_t (γ_1)	0.182 **	0.074
<i>when low noise of private signals</i> x_t (γ_2)	0.013	
Relevance of beauty contest:		
Size of communication effects (<i>high</i> r)		
<i>when high noise of private signals</i> x_t (γ_1)	1.649 ***	0.004
<i>when low noise of private signals</i> x_t (γ_2)	-0.164	
Communication in purdah period (<i>high</i> r)		
<i>when high noise of private signals</i> x_t (γ_1)	-0.104 **	0.004
<i>when low noise of private signals</i> x_t (γ_2)	-0.106 *	

Empirical evidence

- Communication more beneficial or less detrimental when private signals are noisy – support for paper
- But also additional trade-off: desirability of CB communication may depend on CB objective:
 - With high market uncertainty, communicating dispersed views tends to worsen short-term predictability, while improving medium-term predictability

CB objectives

- Anchoring of inflation expectations
- Flexibility in communication
 - Many communication tools are rather inflexible (e.g. forecasts): i.e. cannot be switched on or off depending on precision of CB information at a time
- Credibility of CB: is noisy CB information in one area detrimental for CB effectiveness in others?
- Implications for interest rate path debate
 - What if high CB uncertainty
 - Is conditionality understood by markets?

5. Summary

- **Contribution**
 - Benefit of CB communication depends on precision relative to precision of other CB communication tools
- Preferred CB communication strategy depends ...
 - not only on relative precision of various comm. tools,
 - but also on relative importance of various CB objectives
 - and structure of the economy & markets
- May help explain stark differences in communication strategies across CBs today
 - No single optimal communication strategy