

Discussion

“Forward Guidance and Heterogeneous Beliefs,”
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Forward Guidance Policy

...are likely to warrant exceptionally low levels for the federal funds rate at least through mid-2013.

– FOMC Statement 8/9/2011

Key issue: how does the private-sector interpret forward-guidance?

*A number of participants questioned the **effectiveness** of continuing to use a **calendar date** to provide forward guidance, noting that a change in the calendar date might be **interpreted pessimistically as a downgrade of the Committee's economic outlook** rather than as conveying the Committee's determination to support the economic recovery. If the public interpreted the statement pessimistically, consumer and business confidence could fall rather than rise.*

– Minutes of FOMC 9/12/2012

This paper:

What are the implications for optimal **forward guidance** policy if some agents **doubt** the central bank's **commitment**, but not the path?

Basic framework

- New Keynesian framework
- Demand shock: $-\zeta$ for T periods
- $-\zeta + \text{Taylor-rule} \Rightarrow \text{ZLB}$
- T **unknown** to private-sector.

Forward Guidance Policy:

- Monetary Policy:

$$R_t = \begin{cases} 1 & t \leq T_{zlb} \\ \beta^{-1} & t > T_{zlb} \end{cases}$$

- c.b. chooses optimal $T_{zlb} \geq T$.

Key model ingredient 1: beliefs

Optimists

$$E_{o,0}(T) < T_{zlb}$$

Pessimists (fraction α)

$$E_{p,0}(T) = T_{zlb}$$

Higher-order beliefs

For $x_{jt} \in \{c_{jt}, E_{jt}\pi_{t+1}\}$:

Common Knowledge: $E_{i,0}(x_{jt}) = E_{j,0}(x_{jt})$ for $0 \leq t \leq E_{o,0}(T)$

Conforming: $E_{i,0}(x_{jt}) = E_{i,0}(x_{it})$ for $t > E_{o,0}(T)$

Large family: agree to disagree



Key model ingredient 2: transfers

- Family members agree on a **transfer** plan that **equates** wealth and consumption for all $t \geq E_{o,0}(T)$.

Key model ingredient 3: optimal forward guidance

Simultaneous move Nash equilibrium:

- given beliefs and cons. plans, set $T_{cb} [\alpha, T, E_{o,0} (T)]$.
- given beliefs, p.s. chooses cons. plans, and

$$T_{cb} [\alpha, E_{o,0} (T), E_{o,0} (T)] = T_{zlb}$$

Characterizing T_{cb} :

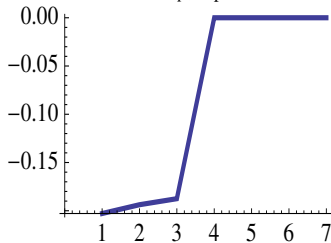
- Small $\alpha \Rightarrow T_{zlb} > T$.
- Large $\alpha \Rightarrow T_{zlb} = T$.
- $\exists \bar{\alpha}$ s.t.

$$\frac{\partial T_{zlb}}{\partial \alpha} > 0 \text{ for } \alpha < \bar{\alpha} \text{ and } \frac{\partial T_{zlb}}{\partial \alpha} < 0 \text{ for } \alpha > \bar{\alpha}$$

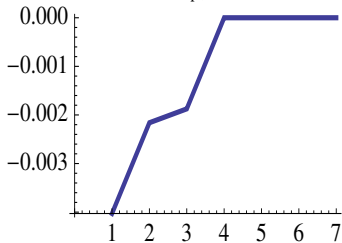
- **Multiple equilibria?** $T < E_{o,0} (T) \leq T_{zlb}$?

Forward Guidance: $T = 1, T_{z/lb} = 2$

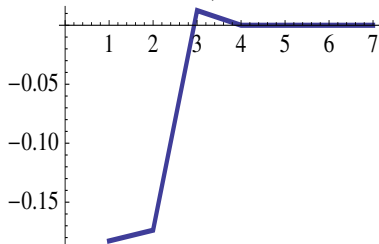
$E_{p,0}c_{pt}$



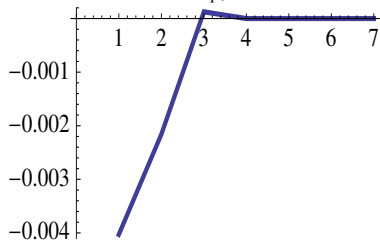
$E_{p,0}\pi_t$



$E_{o,0}c_{ot}$

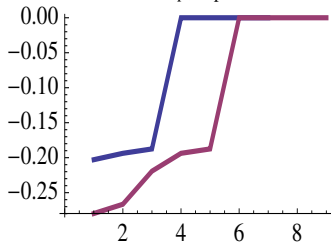


$E_{p,0}\pi_t$

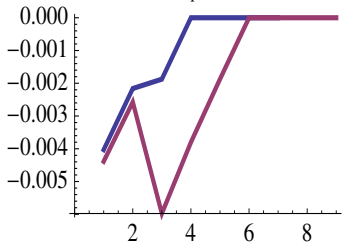


Forward Guidance: $T = 1, T_{z/lb} = 4$

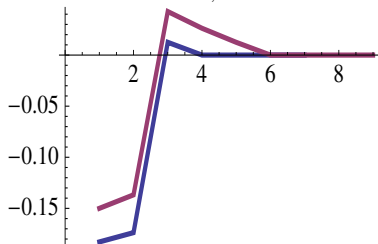
$E_{p,0}c_{pt}$



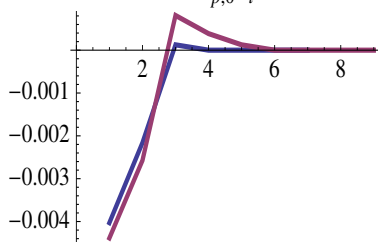
$E_{p,0}\pi_t$



$E_{o,0}c_{ot}$



$E_{p,0}\pi_t$



Calendar date forward guidance

- Pessimistic agents **misinterpret** forward guidance.
- Can explain “forward-guidance puzzle.”
- Theoretical and empirical support **against** guidance based on a calendar date T_{zlb} .

Dispersion in “readiness to spend” Michigan survey



Forward Guidance and Financial Positions

- For convenience, no lasting implications from forward guidance.
- More realistically, optimistic/pessimistic hh's take different financial positions, that persist long after the trap.
- With heterogeneous beliefs, forward guidance might have long lasting effects.

Conclusion

- Paper reinforces message that what matters isn't just forward guidance about the path of interest rates but guidance about the **commitment to depart** from normal monetary policy.
- Emphasis here is the **optimal T_{zlb}** with heterogeneous beliefs.
- The change in forward guidance in December 2012 away from date-based guidance, consistent with changing the beliefs of the pessimistic agents about the length of the trap.
- These results do, depend, in part on strong assumptions:
 - common knowledge;
 - **perfect foresight**;
 - transfers of financial wealth after the trap;
 - timing protocol in game b/t central bank and private sector.