Discussion of 'Is Time Ripe for Price Level Path Stability?' by Vitor Gaspar, Frank Smets and David Vestin

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What we have here...

- This is, in part, a survey of recent work on an important policy issue–with some new results added for good measure.
- It is also, essentially, a manifesto that makes a powerful argument for price-level targeting
- At the same time, the authors do come clean on the crucial assumptions

What we have here...

- The authors in general, and David Vestin in particular, are experts in the subject area...
- ...so it comes as no surprise that it is a good paper.
- What does surprise, is that I find myself in agreeing, at least in part, with the authors.
- Nonetheless, I will do my best to poke some holes in the argument.

What I am going to do...

- Very brief, selective summary of the paper
- Talk about caveats

The conventional approaches to the issue

- Two thrusts of the argument:

1. *Agents care about price-level uncertainty:* The authors leave this one alone;
2. *The "free lunch" argument:* Svensson (1999), Vestin (2006), and others. Pinning down the price level helps even when agents don't care about price levels. This is the issue the authors examine

Confronting the critics

- The authors identify two common critiques of price-level targeting:

1. The crucial assumption(s) of rational expectations and credibility.
2. Uncertainty, policy errors, and costly reversals

The first half of the paper...

Reviews some recent results, using:

- a standard hybrid NK Phillips curve with a cost-push shock;
- output treated as a control variable (no output shocks);
- policy mandates are delegated (no 'delegation shocks')
- 'perfect' discretionary policy (no policy shocks)
- This part of the paper is about getting *discretionary* policies to mimic *commitment* solutions

The "free lunch"

The idea and the model:

$$\underset{<x>}{MIN}\ L = \frac{1}{2}(\pi_t^2 + \lambda x_t^2) \qquad s.t.$$

$$\pi_t = \gamma\pi_{t-1t} + \beta(E_{t-1}\pi_{t+1} - \gamma\pi_t) + \kappa x_t + \mu_t$$

The targeting rule under *commitment*:

$$p_t = (\gamma + \delta\beta^{-1})p_{t-1} - (\gamma\delta\beta^{-1})p_{t-2} + \delta\mu_t \qquad \delta = f(\beta, \kappa, \lambda)$$

which contrasts not at all with the solution under *discretion*:

$$p_t = (1+\gamma)p_{t-1} - \gamma p_{t-2} + [\lambda/(\kappa^2 + \lambda)]\mu_t$$

Solutions are identical *up to the parameterizations* which means that the government can assign an alternative loss function to a central banker. It turns out that the delegated loss function will often be a price-level targeting loss function.

The second half of the paper...

Adds some new results, while testing some of the critiques, *in particular:*

- results with the larger and more complicated Smets-Wouters model;
  - Important because Smets-Wouters has sticky wages
  - Smets-Wouters has more shocks and more channels
- results backing down on rational expectations by using learning;
  - Interesting results!
  - but I am not sure if they speak to the issue of uncertainty
- This part is mostly to do with *commitment* solutions (or transitions to them)

On delegation...

- *Optimal discretion* imitates *optimal commitment* via delegation in the first part...
- and then in the second part, it disappears in favor of *commitment to a simple rule*
- Most central banks are run by committees; how do they commit?
- The results show that the optimal central banker is more extreme than the social planner, committees are designed to eliminate extremities.

A few numbers from a version of Amato-Laubach (2003)...

The policy rule(s):

$$rn_t = \beta_r rn_{t-1} + \beta_\pi \pi_t \quad or \quad rn_t = \beta_r rn_{t-1} + \beta_\pi p_t$$

Optimized simple rules of the A-L model

	$\psi = 0.8; \phi = 0.8$			$\psi = 0.2; \phi = 0.3$		
target	β_r	β_π	L	β_r	β_π	L
π	0.96	0.10	0.18	0.72	0.35	0.35
π^c	1	0.09	0.18	1	0.19	2.07
p	-0.16	0.45	0.21	-0.84	1.93	1.93

ψ :prob. consumers reopt; ϕ : prob. firms reopt

So there is still room for some doubts on robustness.

On learning...

For me, the most interesting part of the paper is on learning and transition dynamics. They show:

- When agents use the MSV solution for the pricing function as their learning model, REE obtains;
- How do we know that agents will use the MSV solution?
- An overparameterized PLM will result in a noisy REE. Will the losses along the transition path be the same?
- It takes as much as seven years for the CB to begin making back its transitional losses.
- Could a CB delay gratification that long? (Now that's commitment!)

Conclusion

- *Model uncertainty*: How do we know we are controlling what we think we are controlling? [Bullard and Mitra (2002, 2006), Tetlow and vzM (2005)]
- *Data revisions:* If credibility is to be established, people have to verify you are doing what you say you are doing. This is not trivial.

- An interesting and provocative survey
- Makes a pretty strong case for price-level targeting
- I would like to see some central bank try it out...
- ...but I would not want to be the one doing it!