### THE INFLATION TARGETING DEBATE

by

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### **OUTLINE**

- Does inflation targeting improve economic performance?
- Is inflation targeting consistent with the dual mandate?
- Can central bank transparency go too far?
- Would a price level target be better than an inflation target?
- Would a point target be better than a target range?

- 1. Inflation levels (and volatility), as well as interest rates, have declined after countries adopted inflation targeting.
- 2. Output volatility has not worsened, and if anything improved, after adoption of inflation targeting.
- 3. Exchange rate pass-through seems to be attenuated by adoption of inflation targeting.
- 4. The fall in inflation levels and volatility, interest rates and output volatility is part of a worldwide trend in the 1990s, and inflation targeters have not done better in terms of these variables or in terms of exchange rate pass-through than non-inflation targeting industrialized countries such as the United States or Germany.

- Results suggestive that  $\pi$ -targeting is beneficial, but less conclusive than at first appears
- Ball and Sheridan (2005):

"No evidence that inflation targeting improves performance as measured by the behavior of inflation, output or interest rates."

Success of  $\pi$ -targeting just regression toward mean because  $\pi$ -targeting generally adopted when  $\pi$  high and larger decline in  $\pi$  reflects tendency of improvement everywhere in  $\pi$  and output performance in 1990s

"This finding suggests that better performance resulted from something other than inflation targeting."

### Are Ball and Sheridan claims correct?

Hrvrinem (2004): regression to mean not general, only happens in 1990s: suggests change in m-policy in 1990s and  $\pi$ -targeting one manifestation of greater emphasis on achieving p-stability

Gertler (2005): equally plausible interpretation is that countries experiencing high  $\pi$  adopted  $\pi$ -targeting which facilitates reduction in  $\pi$ 

# • $\pi$ -targeting endogenous, so better performance associated with $\pi$ -targeting may not imply causation

Need further research to deal with potential endogeneity

Schmidt-Hebbel and I plan to do this in new project

• Result 4. suggests what is really important is establishment of strong nominal anchor and other ways to do it

M-targeting in Germany

Get "maestro" (Alan Greenspan)

- $\pi$ -Target would probably not have been better than Greenspan, but more likely to be better when Greenspan retires
- Calvo-Mishkin (2003) and Sims (2005):  $\pi$ -targeting not capable of establishing strong nominal anchor by itself: Need good fiscal policy and financial supervision

- More telling evidence on  $\pi$ -targeting benefits on  $\pi$  expectations
  - 5. Evidence that adoption of inflation targeting leads to an immediate fall in inflation expectations is not strong.
  - 6. Inflation persistence, however, is lower for countries that have adopted inflation targeting than for countries that have not.
  - 7. Inflation expectations appear to be more anchored for inflation targeters than non-targeters: that is, inflation expectations react less to shocks to actual inflation for targeters than non-targeters, particularly at longer horizons.

•  $\pi$ -Targeting promotes stronger nominal anchor even than Greenspan

• M-theory shows that strong nominal anchor is key to successful M-policy

• Evidence on  $\pi$  expectations provides strong case for  $\pi$ -targeting

- Fed has dual mandate to promote both price stability and full employment in contrast to hierarchical mandate in which price stability is primary objective (Canada, UK and ECB)
- M-theory doesn't see difference if full employment is natural rate
- Are different in political economy terms

Hierarchical: too much emphasis on  $\pi$  control?

Meyer (2004) argues American public does not support changing from dual to hierarchical mandate

Poll in other countries likely to provide more support for dual rather than hierarchical mandate

- $\pi$ -targeting at first glance inconsistent with dual mandate and opens door to charges that central bank is "inflation nutter"
- Not true: flexible inflation targeting (Svensson, 1997) has dual mandate objective function with both output and  $\pi$  fluctuations and so does not try to hit  $\pi$  target over policy horizon if are far from target
- However, to preserve and obtain support for  $\pi$ -targeting, central banks need to make clear they care about output fluctuations and in practice are pursuing dual mandate

- Dirty Little Secret of Central Banking
  - CBs have "Don't Ask, Don't Tell" policy: Care about Output Fluctuations but Never Talk About It

Alan Blinder Jackson Hole 1994 episode

"Good central bankers never admit they pursue stabilization policy": admonition to Larry Meyer

Problem for all CBs and not just  $\pi$ -targeters

• Why? Talking about output fluctuations directly can lead to political pressure to focus on short-run

- Two problems from not talking about output fluctuations
  - Dishonest Height of Nontransparency
  - Might be characterized as "inflation nutter" => Erosion of support for CB Independence
- How can central banks show they care about output fluctuations?

- Talk about output fluctuations by emphasizing that too short a horizon would entail unacceptably high output losses
- Emphasize how path and horizon of inflation targets depends on state of economy
  - Brazilian example: CB describes tradeoff between  $\pi$  and output in adjusting path of  $\pi$  toward long-run target
  - Even when close to π-target, need to describe what will do if get shocked away: i.e., say will do what the Brazilians did

- Communicate that care as much about  $\pi$  undershoots as overshoots
  - Explain that  $\pi$  target allows more aggressive easing of M-policy in face of negative demand shocks because no worries about blowout of  $\pi$  expectations
- Indicate that when are very far from potential GDP, mismeasurement of potential GDP becomes small relative to output gap.

The case for taking actions to close output gap is now stronger

- Svensson advocates CB announce projection of future policy path and their objective function (numerical weights on  $\pi$  versus output fluctuations)
- To evaluate how far transparency should go ask following basic question
  - Does increased transparency help the central bank to do it's job: i.e, conduct monetary policy with a focus on long- run objectives?
  - Answer is NO if violate KISS (Keep It Simple Stupid)

## • Problem with announcing policy path:

- Can complicate policy board's deliberations (Bank of England (Goodhart, 2001) and Fed experience)
- Members may not be able to agree on path
- Can complicate communication with public (violates KISS principle)
- Public may not understand that projections are conditional on future state of the economy

When new information comes in and CB path changes, public may see this as failure of CB and hurt CB credibility and independence

• Bottom line: Announcement of policy path should only be done in exceptional deflationary circumstances like Japan

• Recent Fed language of removing accommodation at "measured pace" should be dropped

- Should central bank announce objective function?
- No because it violates KISS principle

## SHOULD THE CENTRAL BANK REVEAL ITS OBJECTIVE FUNCTION?

Hard for policy board members to specify objective function

Could use revealed preference but policy board does not think in terms of hypotheticals

Policy board would have trouble agreeing on objective function

Complicate decision process: weaken quality of decisions

- Who should choose objective function- CB or govt?
- Public won't understand objective function: complicates communication

## SHOULD THE CENTRAL BANK REVEAL ITS OBJECTIVE FUNCTION?

- Announcing output objective increases focus on short-run output fluctuations => Worse Time-Inconsistency Problem
- Also requires announcing potential GDP and output gap
  - Potential GDP hard to measure
  - May lead to interpretation of potential GDP as target and increase short-run focus on output gap
  - Severe real-time and conceptual measurement problem for output gap could lead to policy mistakes as in US in 1970s
- Problems with announcing output gap argues against publication of output gap forecasts

- Transparency is a virtue, but like all virtues can go too far
  - Chanel dictum: "You can never be too rich or too thin"
  - But you can be too thin
- Transparency should promote simpler communication with public and support for CB focus on long-run issues

### PRICE LEVEL VS INFLATION TARGET?

- Five years ago I was skeptical of price level targets: Events in Japan indicates price level target important weapon to combat deflation
- Once Economy Enters Deflation, 2 Problems
  - Zero lower bound makes interest-rate policy ineffective to get out of deflation trap
  - CB may have severe credibility problem: public doesn't believe can commit to expansionary policy
- Both problems in Japan

### PRICE LEVEL VS INFLATION TARGET?

## • Key to exiting deflation trap: Management of Expectations

- Need high expected  $\pi$ 

## • Problem with $\pi$ -Targets

- High  $\pi$  target a la Krugman (1998) not credible because it is inconsistent with price stability
- Time inconsistency problem, Eggertson (2003): Central bank tempted to renege on high  $\pi$  target once economy recovers
- $\pi$  target not "history dependent": is purely forward-looking won't extricate from deflation trap

### PRICE LEVEL TARGET

## • Price Level Target solves these problems

- Deflationary shock  $\Rightarrow$  P  $\downarrow$   $\Rightarrow$  P<sup>T</sup> P  $\uparrow$   $\Rightarrow$   $\pi^e$   $\uparrow$   $\Rightarrow$   $i_r$
- Reflation with P<sup>T</sup> lowers real debt burden, restores balance sheets
- Helps in Restructuring: increase in aggregate demand helps cushion short-term negative effects of restructuring,

### PRICE LEVEL VS INFLATION TARGET?

- But once price level target is achieved might be better to go to conventional inflation target of say 2%
  - Traditional view in central banks (with backward looking expectations) suggest inflation target performs better
  - Communicating inflation target is easier to explain

- Five years ago I argued for point target over range
  - Could produce too much focus on edges and to keeping  $\pi$  just within range: asymmetric reaction to  $\pi$  just inside and outside range
  - View not based on theoretical modeling
- Theoretical work with Niklas Westelius shows I was wrong:

Target range has very nice properties!

• Barro-Gordon (1983) model with more realistic setting:

Time inconsistency comes from political pressures of government on central bank, not from central bank

Government wants unemployment below natural rate and output volatility too low relative to  $\pi$  volatility

- Two types of bias:
  - 1. Inflation bias  $(\pi > \pi^*)$
  - 2. Stabilization bias (output volatility too low,  $\pi$  volatility too high)

- Two types of solutions in literature:
  - Rogoff (1985): target and weight conservative central banker
  - Walsh (1995): inflation contract with punishment for inflation level and volatility too high

## • Neither approach is feasible

- Difficult to find "right" central banker
- Why should govt appoint conservative central banker with different preferences
- Opportunistic govt will change central banker to be less conservative: regime is unstable
- Central bankers not paid well so inflation contract wouldn't provide enough incentives
- Inconsistent for govt to explicitly declare central bank should have different preferences through contract
- Public officials pay is almost never performance based: certainly true for central bankers

- Inflation band targeting is feasible and has been implemented in most  $\pi$  targeting countries
  - Don't need to find "right" central banker
  - Stable over time
  - Flexible so it is palatable to politicians
  - Simple: is easily implemented and explained

- Inflation band targeting has marginal cost structure very close to optimal inflation contract
- However, realized inflation cannot be too far outside range => target range has to be wide enough so that  $\pi$  is inside it most of time
- Therefore, more uncertainty about  $\pi =>$  wider range

What we find in practice: emerging market countries have and need wider range

• Welfare comparisons show that target range able to get welfare very close to social optimum with only slightly higher inflation and output volatility

Welfare gain over discretionary policy that goes over 90% toward maximum attainable by social planner

• Bottom Line: I have to eat my words (previous writings)

Inflation target ranges are way to go

### **CONCLUSION**

• Substantial progress in understanding how to do monetary policy better, especially with  $\pi$  targeting

• Debate over  $\pi$  targeting goes on