Discussion of "The great inflation of the 1970s" by Fabrice Collard and Harris Dellas

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Prepared for the:

"International Research Forum on Monetary Policy"

Washington DC

November 14-15, 2003

Big Question – What caused the high inflation of the 1970s? There is much recent research on this question.

Clarida, Gali and Gertler (2000) – Empirical paper finds pre-Volker Fed weaker on inflation than Post-Volker Fed. They don't try to explain why.

Delong (1997) agrees and argues that the 1970s Fed had no political mandate for vigorous anti-inflation policy. If the Fed had pursued one it probably would have been transformed beyond recognition. Why no mandate? The Great Depression created a widespread belief that potential output was only reached at the top of a business cycle. It took the 1970s to overturn this view. This is a "march of science" view, although it's possible that we will eventually forget the lessons of the 1970s.

Sargent (1999) offers essentially the Delong view as one of the two alternatives he considers but comes down in favour of a different story: that the Fed's underlying theory never changed but that it adjusted policy as its econometric parameter estimates evolved. This view suggests that no fundamental lesson was learned and that high inflation can remerge if parameter estimates drift appropriately.

Orphanides (2003) argues that in the 1970s a big productivity shock lowered potential output but the Fed was slow to recognize the shift. The big inflation occurred while the Fed was substantially overestimating the output gap. Nelson and Nikolov (2001) follow this line for the UK.

Here are some of the main ingredients of the paper.

Household utility arguments – consumption, real money balances and leisure.

Adjustment costs for capital.

Final goods produced from intermediate goods.

Intermediate goods produced from capital and labour.

Staggered price setting.

Random government spending supported by taxes.

Monetary policy follows a Taylor rule but *potential output is not observable and the Fed learns about it*.

Computational approach moving around parameters of various types.

1. Taylor rule parameters.

2. The noise on the signal about potential output.

3. The degree of price flexibility.

They study the response to a negative productivity shock of various sizes and the volatility of inflation and output.

What do we learn?

To produce a great inflation you need:

1.   a lot of noise on the output gap. With lots of noise it can take a long time after a productivity shock for the Fed and the public to realize the degree to which it is overestimating potential output. *Agents think actual output, which is low, is well below potential output and actual inflation, which is high, remains persistently above expectations.* This sounds like Orphanides.

2.   There has to be a large productivity shock.

With these two elements the model doesn't generate enough variability in inflation and output to reflect what happened. So the authors play around with Taylor rules. They find that good correspondence with reality requires:

3.   The 1970s Fed has to be sluggish. Specifically, a Post-Volker Taylor rule does generate enough variability of any kind.

4.   They can do a reasonable job of matching the data with a 1970s Fed that is weak on inflation (a coefficient of about 1), but not as weak as Clarida, Gali and Gertler would have it (.8), and basically indifferent to output (a coefficient of about 0).

But such a Taylor seems quite implausible. It is also inconsistent with any story I know of or can think of about the 1970s.

Where does this leave us?

I think there's definite potential here. It was never going to be easy to get the model to look like the 1970s for such a wide range of variables but Dellas and Collard give it a go.

Overall this work seems to support the notion that the 1970s Fed was not quite as weak as is commonly thought and, therefore, less has changed than meets the eye.

For the mainstream Taylor specifications the variability is low on inflation and output but perhaps this isn't so bad. Stock and Watson (2003) argues that underlying shocks were big in the 1970s and moderated around 1984 so maybe it makes sense simply to increase the variance by just taking larger shocks.