

Discussion of

Michel Juillard, Philippe Karam,
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“Welfare-Based Monetary Policy Rules in
an Estimated DSGE Model of the U.S.
Economy”

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International Research Forum on Monetary
Policy: Third Conference, ECB, 20–21 May
2005

- DSGE model for U.S., estimated.

I'll discuss:

- Motivation and specification.
- Application to 1970s inflation.

Some observations

1. First paragraph gives one motivation as:

“...by focusing on the properties of linearized models, previous research has implicitly overlooked the possibility that the monetary policy process—or reaction function parameters—may have any significant first-order effects on welfare through changing the average level of real variables...”

I would emphasize two distinct issues: satisfaction of *superneutrality* and *natural rate hypothesis*.

Superneutrality: effects of steady-state inflation on average level of potential (flexible-price) output. i.e. whether $E[y_t^*] = f(\pi)$ and so $f(\text{monetary regime})$

Many DSGE models satisfy superneutrality, in both linearized form and underlying nonlinear model.

Violations of superneutrality (e.g. non-indexing of tax code) can be added without sacrificing linearity.

- *Natural rate hypothesis*: condition that average level of output (and other quantities, and real interest rates) equal flexible-price level, i.e. a “zero average gap” condition

$$E[y_t] = E[y_t^*] \text{ or } E[y_t - y_t^*] = 0$$

(Note: NRH defn. here requires gap definition of $y_t - y_t^*$, whereas in paper gap is defined as $y_t - E[y_t]$.)

Whether model violates NRH typically depends on price (& wage) adjustment specification.

But is this a case for studying models and policies that allow NRH violations? NRH could be a critierion for choosing a model for monetary policy analysis (Lucas, McCallum, Mankiw-Reis, etc.).

E.g. Andrés, López-Salido and Nelson 2005: DSGE model estimated with several price-setting specifications, each satisfying NRH (Calvo with full indexation, sticky info/Fischer contracts)

So it's not clear that omission of effects of monetary policy on data averages is by itself a weakness of a model.

2. *Disaggregation of components of aggregate demand* (Consumption, Investment, Govt. Expenditure)

C vs. I distinction not mandatory—could instead use household consumption as stand-in for all private expenditure

Traditional justifications for disaggregating C, I :

- C, I functions have different arguments
 - ◆ True in old textbook model, but in optimizing models both decisions are intertemporal (depending on short rate, expected future income)
- Investment affects stock of capital
 - ◆ But for aggregate I , addition to K from year's investment is small → can treat K as fixed even while I is source of Y variation

- Physical capital adjustment costs
 - ◆ But these are analogous to habit formation—putting moving average of Δy in IS function
- E.g. cost function in (9) has quadratic term in $(\Delta(I_t/K_t))$, close to ΔI_t since K_t is acyclical

So may be OK to omit disaggregation of expenditure.

Great Inflation of 1970s

My work in this area (Nelson 2004, 2005)—

Idea:

(i) Appealing explanation of 70s inflation should work across countries (not just U.S.)

(ii) Data record (rising inflation and unemployment, negative real rates) observationally equivalent across different explanations (e.g. learning PC vs. gap errors)

So instead I look at factual policy record—i.e., the doctrines underlying the Great Inflation monetary policies: what they knew and said about inflation.

Lack of CB independence in many countries precludes a symmetric treatment based on Minutes.

Strategy:

- ◆ Symmetric treatment of many countries (U.S., U.K., Canada, Australia, New Zealand) using statements about inflation and monetary policy by senior policymakers recorded in newspapers, etc.
- ◆ Search for common explanation of Great Inflation resulting from study of policy record.

1. Policymakers regarded inflation as not function of own actions
2. Inflation regarded as very costly
3. No intentional targeting of unemployment below natural rate
4. Stagflation did not lead to convergence to vertical PC model
5. Nonmonetary views on inflation rationalized not tightening monetary policy to fight inflation
6. Cost-push views and output gap mismeasurement reinforced one another
7. Some nonmonetary views rationalized demand *expansion* to fight inflation
8. Countries pursued inflation targets—but via incomes policies, not monetary policy

Implications of each point:

- 1, 2, 8: High inflation not a conscious monetary policy inflation target
- 1, 2, 3: Rules out time-inconsistency explanation
- 1, 4, 5: Rules out Sargent “learning PC is vertical” explanation
- 6: Rules out output gap mismeasurement as sole policy error
- 6: But also explains why no PC-based filtering to estimate gap
- 1, 5, 7, 8: Rules out output gap mismeasurement as deepest policy error

Points 1 to 8 are all consistent with monetary policy neglect hypothesis, explanation of Great Inflation in Nelson and Nikolov (2004) and Nelson (2004, 2005)

Monetary policy neglect took these planks:

- Inflation is a nonmonetary (cost-push) phenomenon.
- Use wage & price controls to fight inflation.

Great Inflation arose from these fallacies.

Some illustrations:

Not a high inflation target...

1974 President Ford: inflation “Public Enemy No. 1”

1975: U.K. PM Wilson: “present disastrous rate of inflation” threatens “general economic catastrophe”

Policymakers’ nonmonetary view of inflation...

◆ Burns in 1971: high inflation could prevail alongside monetary restriction for 5 years or more

◆ Cost of Living Council Director 1974: “we just don’t know how to control inflation”

◆ Philip Jackson (FRB Governor) in 1975 interview: “Inflation is caused by other than fiscal or monetary policies”

◆ Chairman Miller 1978: monetary policy should not be “main bulwark against inflation”

◆ U.K. Chancellor of Exchequer, 1971: inflation causes and solutions “outside the monetary sphere”

President Aims to Reduce Inflation Rate to 4% in '79

● Continued from Page 1A ●

in 1976, but that rate was considered unusually low. The forecast for 1977 is about 6 percent.

CARTER announced at a White House news conference that he has enlisted the aid of Meany and Jones to head a labor-management team to work with his administration in reducing inflation.

But the embargo on presidential "jawboning" over excessive wage and price increases indicated that little may come of the labor-management summit session.

IT APPEARS that Carter will be working with the same labor-management group that originally was established in

1974 to advise former President Gerald R. Ford on economic matters. "Basically, it's the same group," said a spokesman for the AFL-CIO.

There are about eight members each from business and labor, with Jones and Meany heading the two sides. Former Labor Secretary John T. Dunlop, who set up the group for Ford, remains as chairman.

The group once had official status but has been meeting unofficially since Dunlop resigned as labor secretary last year.

Meany said in a statement after Carter's news conference that he and Jones have told Carter "we would be willing to discuss with the president's advisers — in a voluntary, non-official manner — the

major economic problems facing the nation."

Progress in reducing the inflation rate below six percent will be slow, Carter said, and will require "a united national effort . . . No one should look to government for easy answers, because there are none."

He said he would veto a permanent across-the-board tax cut at this time because it would be inflationary.

"I don't think the Congress is going to take that action, which would be irresponsible," he added.

Carter said killing his \$30 rebate plan Thursday was made harder by the knowledge that some Americans already may have made purchases in anticipation of paying for the merchandise with the proposed rebates.

IN A STATEMENT released before the news conference, Carter said his program also will involve:

- A government crackdown on price fixing and monopolies.
- International agreements to lower commodity prices and no U.S. protective action against cheaper imports.
- Establishment of farmer-held reserves to stabilize food prices.

INFLATION TARGET IS SUNK

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casting predicted yesterday that Britain's inflation rate would continue to be cut.

They expected the rate to dip to 10 per cent or

even lower next year.

But drought, rising food prices and trouble in currency markets could adversely affect the economy.

THE £ ended nearly a third of a cent down at

1.7350 dollars after a see-saw day.

TEA will go up at the end of the month when the Government scraps its annual £31 million subsidy. Housewives will have to pay 8p a pound more.

7% IS AIM ON PRICES

THE Government hopes to bring inflation below seven per cent in the next few months. Prices Secretary Roy Hattersley said on ITV's Weekend World yesterday.

But Mr. Hattersley denied plans for a new Price Commission crackdown on firms who bust the five per cent pay policy.

Implications for JKLP paper:

- Story should be consistent with 70s policy record
- In Sect. 4.3 experiments, historical 70s policy is modeled as 80s/90s policy plus unit root in inflation target
- I.e., a high inflation target pursued vigorously by the monetary policy rule
- Not valid as description of actual 70s policy—policymakers had ambitious inflation targets, but delegated inflation control to nonmonetary devices

- “Modern” rules in paper with constant target have over 6% deflator inflation in early 80s (in a period where PCE 4Q inflation exceeded deflator inflation by around 2%)
- By contrast, Nelson and Nikolov 2004 counterfactual for U.K. argued that supply shocks less important than monetary policy neglect—modern policy could have kept rise in CPI inflation to 1–3pp of 9+ pp
- I.e., we found that demand management of the kind observed today *would* have been sufficient to avoid Great Inflation.
- JKLP simulation is less hopeful on this.
- But 70s policymakers *were* aware that negative real interest rates were problematic; problem with pre-79 policy was trying to fix this by manipulating expected-inflation component of Fisher equation (for given nominal interest rate).

- Under modern policy, it is monetary policy that preserves positive real rates when these are desired.
- “Unavoidable supply-side shock” story therefore problematic as description of 70s—absent theoretical errors, emergence of negative real rates should have guided policymakers to tighter policy.

This suggests a check on simulation: see if historical simulation can reproduce negative real rates of 70s, and counterfactual with modern policy rule avoids them.

If “no” to either, more scope exists for modern monetary policy rule to have avoided Great Inflation.

Conclusion

- Ambitious estimated model.
- “Small-scale” but some disaggregation of aggregate demand—useful for allocative issues, maybe less so for monetary policy analysis.
- I am much more optimistic about scope for modern monetary policy to avoid 70s inflation, even with 70s supply shocks.