

Nils Gottfries and Johan Söderberg: “Do Sticky Prices Make Sense?”

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- Launch a fundamental attack on recent (big) wave of “New Keynesian” DSGE models used for monetary policy evaluation
- These models purport to be microfounded, but they are not
- Culprit: Models *postulate* nominal stickiness, they don't show it to be an optimal choice — say, due to menu costs
- Are the New-Keynesian literature really New Keynesian? (Mankiw, 1985; Akerlof and Yellen, 1985 are seemingly long forgotten.)

Modelling approach

- Set up example of standard model with Taylor-staggered nominal wages and prices
- Show how a good macroeconomic calibration may disguise a horrible micro-economic performance in the standard model
- Offer a theoretical alternative that performs well both in terms of macroeconomic dynamics and microeconomic implications

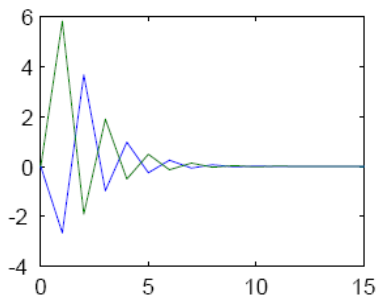
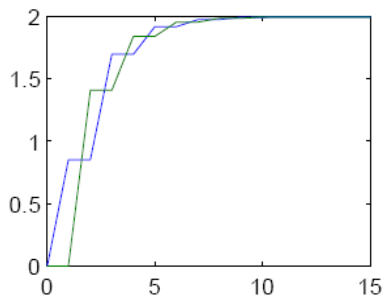
Results (I)

- Standard model *must* have both nominal wage and price rigidity to perform reasonable in aggregate calibrations
 - If “only” price rigidity, real wages fluctuate too much and hours worked fluctuate more than output
 - (cf. CEE (2005, *JPE*): “(T)he model with only nominal wage rigidities does almost as well as the estimated model (...) with only nominal price rigidities, the model performs very poorly.”
- With staggered producer prices by imperfectly competitive firms, and staggered nominal wages set by households offering specific labor services, aggregate output and real wages respond “nicely” to monetary shock
- Disaggregated, the responses are unreasonable:
 - An aggregate output expansion “hides” disaggregated expansions and contractions (large relative price effects)
 - Those not allowed to adjust due to the price rigidity assumption, suffer *large* losses that *no reasonable* menu costs can rationalize (in particular wage setters)

Results (II)

- **Picture of the year:**

Cohorts' prices *and* outputs after a money shock:



The left-hand-side image is what you normally see;
the right-hand-side image is always suppressed

- An alternative to standard model is offered
- Model deviations:
 - “Deep habits” in consumer preferences (reducing short-run elasticity of relative demand)
 - Efficiency wage effects and ranking effects in labor market (cf. Eriksson and Gottfries, 2005) => consumers are off the labor supply curve (and little impact of unemployment on real wages)
 - These features maintain reasonable aggregate dynamics, but avoid wild dispersions at micro-economic level
 - Price and wage rigidity is not nearly as costly as in standard model => menu costs could support them as Nash equilibrium

- Right-hand side of “Picture of the year” should be text-book standard
- It is well known, but never seen, and thereby not given much thought
- For descriptive aggregate analysis it may not matter?
- For normative analyses of monetary policymaking it is all that matters!
- It is exactly this dispersion that gives a welfare rationale for almost exclusive focus on price stability in recent literature
- Right-hand side of “Picture of the year” shows that this has **ultra-thin micro foundations**

- Why look at Taylor contracts rather than Calvo contracts?
 - “From the perspective of microeconomic realism, however, we view Taylor contracts as the more natural way of modeling price stickiness” (p. 4, Fn. 1)
 - Why is a probability of being stuck with your previous price equal to 0 or 1 more “natural” than being stuck with probability $0 < \alpha < 1$?
- More generally, is stickiness micro founded when one imposes the Taylor structure?
 - Shouldn't N be an endogenous and optimally set variable?
 - Why can't you set a sequence of prices (a la Fischer contracts)?
 - So is model extension not subject to some of the fundamental critique that the standard model is?

- Given Taylor framework, paper evaluates losses of nominal rigidity
- Slightly difficult to compare across models
 - In standard models it is in terms of firms' initial revenue (price rigidity), and consumers' disutility measured in consumption equivalents (wage rigidity)
 - In model extension it is in terms of discounted profit stream (price and wage rigidity)
 - Is comparison straightforward? Figure 10 shows 0.15-0.2 percent maximum loss of not changing price/wages; Figure 5 shows 0.15 percent maximum loss of not changing prices
 - Different payoff spaces; different strategy spaces

Comments (IV)

- Figure 9 shows big dispersion of mark-ups (even though “markups do not move much during the adjustment”).
 - Welfare implications still that price stability aimed at stabilizing the mark-up is all that should matter for monetary policy? I.e., inflation stability?
- Unemployment is voluntary in extended model? (“Voluntary quits are large enough so there are no layoffs”)
- All live together and take care of each other in one big household; no consumption differences between employed and unemployed
 - Are these features of realism? Are they micro founded? (One would think that fluctuations are quite costless here.)
- Generally; where do microfoundations end, and assumptions about institutional features take over? Hard issue!

- On micro-founded nominal rigidities *and* macroeconomic policy:
 - Per Svejstrup Hansen: “Destabilising Stabilisation Policy in a Dynamic Menu Cost Model” *Unit of Economics Working Papers 2001/4*, The Royal Veterinary and Agricultural University
 - Claus Thustrup Kreiner: “Do the New Keynesian Microfoundations Rationalise Stabilisation Policy?” *Economic Journal* 112, 2002
- Stochastic dynamic menu-cost models resulting in “(S,s)-price rules”:
 - The price is fixed inside a band (cf. Caplin and Leahy, 1991)
 - Resulting price rigidity causes output fluctuations
- Stabilization policies may be *destabilising* as they widen the “zone of inaction” (risk is reduced, increasing the option value of not changing prices) — equilibrium output fluctuations increase

Concluding comments

- Admirable example of how to write a paper
 - Dissect overlooked aspect of existing literature
 - Demonstrate convincingly the deep flaws
 - Offer a better alternative
- A few reservations on offered alternative could be made though, but this is a very first draft
- Powerful, productively provocative, and promising paper!