NEXT

26 Aug 2019

See Experimentation Notes 21 August 2019 Ryan Meeting

Benichou, Schmitt-Grohe & Uribe (1999)

- challenges the conventional notion that active pol. (mon. pol that responds more than 1:1 to π) is stabilizing → it is only stable (unique) in a "very" local neighborhood of the st. ss.

→ π fluctuates around its "stable" value for a while before converging to the passive st. ss.

↳ makes emerging liq. traps hard to detect!

Needs 2B.

↳ Is this a feature of learning models?

I said in the meeting that "ZLB episode should never have happened if beliefs were anchored"

→ I meant that $\pi = E(\pi)$, (kind of) and if $E(\pi) = 3\%$, π could never have gone down so low as to warrant $i = 0\%$.

→ Ryan said something like what if we were in the low-π period just τ periods too short, so that if it had persisted τ more periods, expectations had become unanchored and we'd never have gotten out?

2 options for Benhabib et al (1999):

- either learning models rationalize multiplicity for active policy
- or learning models offer a different explanation for the slide into liq. traps

Davig & Leeper (2007)

Markov-process for Taylor-rule parameters

expectations-effects: even if you're in an active regime, if ppl. expect that you may switch, macro volatility ↑

You can get indeterminacy if passive regime is

a) sufficiently permanent b) or sufficiently passive

(This is in spirit like unanchored E(·).

⇒ Regime-switching increases the local determinacy region b/c you can "store up on" hawkishness so you have more allowed "downturn credit"

↳ regime-change on the policy-side

vs. CEMP: regime-change on the learning-side

Interpretations of US mon. history: 27 Aug 2019

- Bernanke et al (1997):

  It's not actually active, but it's spiraling into a liq. trap (:S)

- Davig & Leeper (2007)

  The 70's wasn't indeterminate b/c the LRTP (LR Taylor principle) holds, but there were large shocks that were amplified by policy.

- CEMP

  The 70's was due to large gains.

  In "Limits to Mon. Pol" C&P & Giannoni also argue that the gain was large mainly due to loose policy in the 70's (less due to shocks)

Inflation targeting countries:

New Zealand (1990)

Canada (1991)

UK (1992) (RPI of 2.5% → CPI of 2% since 2003)

SWE (1993 announced, applied 1995)

ECB 2%

US (2012) (2% PCE)

→ in the data, what I see is that CPI inflation came ≈5 yrs after the intro of π targeting.

Let's add that Svensson is essentially saying that the "LR-PC becomes non-vertical when infl. EC.) are anchored" i.e. he's saying that the u-π tradeoff survives into the LR then

→ money non-neutrality in the LR.

CEMP-view of π-development:

$$\pi_t = E^{LR}(\bar{\pi}) + \text{shocks}$$

↑MC ↖mon. pol

Svensson is saying

$$\pi_t = \overline{E^{LR}(\bar{\pi})} + \text{shocks} < \text{what it should be}$$

↑MP didn't do enough!

→ so when $E(\cdot)$ anchored, MP very strong in terms of output gap / unemployment control.

$$\pi_t = E^{LR}(\pi_t - \pi^{Target}) + \text{shocks}$$

when unanchored, E^{LR} responds a lot to missing the target → overshooting gets amplified (& inertia)

⇒ self-referentiality.

⇔ self-referentiality seems to make money neutral faster (the LR arrives quicker / earlier)

⇒ unanchored makes MP weaker: bigger interventions are needed.

→ the "Svensson scenario" doesn't describe anchored US macro well, though:

- $\pi < \bar{\pi}$ while $u < u^n$

Or does it? Can we think of a story in which

$\pi_t =$ $E^{LR}(\pi_+ - \bar{\pi})$ + shocks (unanchored)

② ↑ ① ↑ ③ ↑ ④ ↑

vs

$\pi_t =$ $E^{LR}(\bar{\pi})$ + shocks (anchored)

② ↑ ④ ↑

→ u doesn't increase as much while labor market effects are large!

But this is where the "where are they anchored?" comes in:

$1.5\% = \underbrace{E^{LR}(1.5\% - 2\%)}_{<0}$ + shocks

but maybe not large or persistent enough for expectations to adjust. → this story is harder

to tell if expectations are anchored at 3%, a much higher level.

⇒ the question though also is "whose expectation"?

→ the 3% may be lower if the agg. econ's expectations overshoot less than those of HHs.

But ok, at least I can rationalize Svensson's story - and maybe pst errors need to be very big or very persistent for expectations to become unanchored.

⇒ and I've also rationalized why the ECB was scared of unanchoring of expectations during the crisis:

- spiral down
- loss of control

- ZLB

I agreed w/ myself that much larger MP shocks are necessary to move π if $E(\cdot)$ are not anchored.

→ it's poss. to get into ZLB w/ anchored beliefs by being unlucky:

$\pi_t = E^{LR}(\bar{\pi}) + \text{shocks}\downarrow$

→ and getting out should be a lot harder (require bigger MP shocks) if beliefs become unanchored b/c as long as $\pi_t < \bar{\pi}$

$\Rightarrow E^{LR} < 0$ which pushes $\pi \downarrow$

what if they get anchored again at a lower $\pi = 1\%$?

Well then it's easy to get to $\pi = 2\%$ one-time, but it will take a persistent series of MP shocks to maintain that level unless you "unanchor" beliefs in order to shift the anchor to the correct place → this seems to be an "overshoot-ribby" thing.

Divine coincidence

no tradeoff btwn output gap - & π stabilization

In COMP there's no demand side

↳ well now after the Peter meeting it feels like the DC doesn't hold: Fed trades off

$\pi - exp(\cdot) \Rightarrow \pi$ vs. output in the SR!

Peter meeting 27 Aug. 2019

- diss-talks. 2 Prez: Oct 1.
- Preston
  - new dir: a learning model take on std issues:

i) Infl targeting ii) credibility iii) effectiveness of MP
iv) "anomalies of Taylor-rules

Bernhardt, Schmitt-Grohé & Uribe (1995)

global stability of TR: 2 eqb { active / passive

→ fall into Liq. traps

Davig & Leeper (2007)

LR-TP: expanded determinacy region when monpol can be thought of regime-switching.

Preston

- Try a simul w/ only 1 source of randomness or no randomness at all ($\bar{i}$ or r^n)
- – instead of a +.

To Benhabib et al:

Fed changes TR only around ZLB

→ we follow a TR but when $i = 0\%$

we keep it at 0%.

↗ nonlinearity in TR (Benhabib et al)

↘ vs. we switch to sthg else at ZLB

(regime-switching)

Benhabib:

In RE, the bad eqlb is the attractor: how much of that depends on RE ass? Would it be worse/better w/ learning?

Beware: global analysis w/ learning might be tough

Another: Comp-exp.

Compared to the case of RE → the LB may be forced in some sense to deviate from a TR or

adopt a diff TR w/ diff coefficients just to keep expectations anchored / maintain credibility

↳ tradeoff btwn TL-management & credibility

→ sweep in Leeper

std TR

↳ diff regime when unanchored

⇒ could be done using linear methods and simulation

"here's a MP rule that preserves credibility and here's a switching regime that gets the best of both worlds"

↳ and data (estimate using the gain-result from CEMP or you don't have to estimate the beast)

Erceg & Levin JME (2003)

Volcker-disinflation not explainable using RE

dynamics of (π, Y) cannot be explained

w/o a signal extraction on CB's target

Marvin Goodfriend (1993) "Interest rate policy

and the Infl. Scare Problem"

Credibility of Fed was called into question

→ so when FOMC took actions that

weren't justified by TR it's b/c they

wanna preserve credibility.

+ "whatever it takes" (Draghi)

"the Fed listens" Chicago conference

idea here (Powell & John Williams & Clarida)

"we don't wanna get into low E( )"

"better act now than later"

Leeper, Preston, Margaret Jacobson
"Recovery of 1933"
What ended the Deflation of Great Recession
FDR took over and I'm in charge of the Fed"
→ under those circumstances it's ok

Work after

Erceg & Levin: a DSGE model in which agents try to disentangle permanent vs temporary shocks to the inflation target

↳ Evans & Wachtel (1993): show using survey data that persistent past errors aren't irrational, instead they reflect uncertainty on the regime

Goodfriend: inflation scare: when market-based TC-expectations jump up (here: the LR int rate), indicating low credibility of the Fed → Fed has to raise the FFR to indicate its commitment to low π & maintain credibility.

The main takeaway seems to be:

a diff take on US mon history (echoing Goodfriend's idea of an "inflation scare") is that under learning, there's a tradeoff betw mon. objective and credibility → this can explain US mon history as well as the recent int. rate cut (July 2015) as signalling commitment to the 2% target.

→ Could demonstrate in an NK model that

- when anchored, a TR does fine
- when unanchored, a new rule does better

⇒ a hybrid rule that is regime-switching gets the "best of both worlds"

→ and this kind of behavior is what policy-makers are talking about.

⇒ would also shed light on the "flat NKPC" issue:

- when unanchored, not flat, but you fight to get anchoring
- when anchored, flat b/c E(π) don't respond.