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Interactions between monetary and fiscal policies  

Banco de España  

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What the paper does

- **The starting point:** Projected US federal expenditures on health care public provision (Medicare, Medicaid) and Social Security put total spending on an unsustainable path with explosive debt dynamics.

- **The contribution:** Explore the current and future macroeconomic consequences of the uncertainty produced by uninformative policy institutions (i.e. uncertain policy-regime switching).

- **The main conclusion:** Uncertainty about future policy imply:
  - uncertainty about the complete dynamic path of the main macro-variables
  - SPECIALLY: that inflation-targeting cannot successfully anchor expected inflation;
Hardly to find a more relevant topic:

- The first economy in the world is right now on an unsustainable fiscal trajectory.....

- ....but investors everywhere maintain strong faith on the quality of US debt...

- ....which suggest that there is an expectation of a fully certain fiscal reform....

- ....although much uncertainty remains around its implementation (timing and composition).
Moreover, the same story applies to many advanced economies:

Increase in the costs of aging (% GDP) between mid-2000 and 2050
(pensions + health + long-term health care -- IMF 2009)
To put it under the right perspective......
A quick view on Spain:

PROJECTIONS ON AGING-RELATED COSTS, SPAIN (IMF 2009)
DSGE Representative & infinitely-lived households: not the most suitable one to deal with some issues around aging-economics.

Yet the model is perfectly helpful to think about the link between policy uncertainty and inflation (reduced version most welcomed).

However, the Ricardian structure plus the difficulty to calibrate some parameters (e.g. probabilities of regime switching) call for extreme caution when interpreting the numerical results.
The argument (I): Regime switching

- At a random date, transfers enter a (conditional) explosive process.
- Then, rising taxes is not enough to meet transfer commitments (there is an upper limit on taxes, $\tau^{\text{max}}$).
- If $\tau^{\text{max}}$ is reached, then the gov must either:
  - renege on its promised transfers (monetarist regime - MR) or,
  - abandon its monetary policy (fiscalist regime - FR).

Assumption 1: Before reaching $\tau^{\text{max}}$ a MR is in place.
Assumption 2: Outright default on gov debt is ruled out.
Assumption 3: If fiscal limit ever reached, the economy remains on it forever, moving from MR to FR and vice versa randomly.
The argument (II): Regime characterization

- Key object: Gov Intertemporal BC / Valuation equation:

\[
\frac{R_{t-1}B_{t-1}}{P_t} = E_t \sum_{j=0}^{\infty} \beta^j s_{t+j}, \quad \text{where } s_{t+j} = \tau_{t+j} - z_{t+j} \quad \text{(GIBC)}
\]

- **Monetarist regime:** (AM/PF) The Taylor principle holds. If MR maintained forever then:
  - in the unique SS, \( E_{t-1}(\pi_t) = \pi^* \), i.e. the CB controls inflation expectations.
  - monetary policy (MP) determines \( \pi_t \) and \( P_t \). Given \( P_t \) and \( R_{t-1}B_{t-1} \), the gov sets \( \{s_{t+j}\}_{j=0}^{\infty} \) to satisfy (GIBC).

- **Fiscalist regime:** (PM/AF), gov sets \( \{s_{t+j}\}_{j=0}^{\infty} \) at an arbitrary level.
  Given \( R_{t-1}B_{t-1} \) and \( \{s_{t+j}\}_{j=0}^{\infty} \), then \( P_t \) adjusts to satisfy (GIBC). In this case:
  - MP must become passive (e.g. interest rate peg).
  - MP still determines \( E_{t-1}(\pi_t) \), but neither \( P_t \) nor \( \pi_t \).
The argument (III): Regime switching

- Uncertainty on the future regime, fiscalist or monetarist, implies uncertainty on $P_T$ (on how it is determined and on its level).

- Under the FR, $P_T$ and $\pi_T$ will jump (debt revaluation).

- A familiar backward induction argument: higher future inflation means higher current inflation:
  "Because MP loses control of inflation after the fiscal limit is reached, forward looking behavior implies it also loses control of inflation before the fiscal limit is hit".

- As a result, $E_{t-1}(\pi_t) > \pi^*$ over the MR $\Rightarrow$ But notice that the CB is not committing to a MP consistent with the target.
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- In RE-models: More inflation tomorrow tends to produce more inflation today.
Some questions (I)

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- Q #1 (conceptual): Apart from some differences in the environment e.g.
  - SW focus on seigniorage (rather than debt erosion) as the main monetary contribution to the gov budget.
  - SW focus on monetary rules implemented through quantities rather than interest rates, etc.
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- What does the distinction between AM/PF vs PM/AM buy as opposed to M-Dominant vs F-Dominant Regime?
Some questions (II)

- SW’s "game of chicken" allows us to think in terms of different institutional frameworks:
  - *Monetary dominance regime*: Independent CB → fiscal authority must blink.
  - *Fiscal dominance regime*: submissive CB that pursues a seigniorage/debt erosion target.

Q #2 (practical): what role for CB independence in this paper?
Specifically:
"From figure 6 emerges a central message of the paper: in an environment in which fiscal policy is unwilling or unable to stabilize debt, monetary policy cannot successfully target inflation" (p. 21)

Can fiscal imbalances threaten monetary stability even with a hawkish independent CB?
My conjecture: NO – so not a great surprise that "monetary policy cannot successfully target inflation".
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In sum

- Nice, interesting paper dealing with really important issues.

- My own view of the results: No matter whether you believe in the FTPL or in the standard monetarist doctrine à la Sargent-Wallace, if agents expect a possible subordination of monetary policy to certain fiscal targets in the future, more inflation today will be a natural outcome.