

# Monetary Policy Risks in the Bond Markets and the Macroeconomy

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## General Remarks

See final slides for a recent polemic regarding the uncertainty induced by unstable monetary policy.

- Why is fiscal and other policy left out? Why not “Fiscal Theory” approach to government-induced uncertainty?
- Uncertainty over financing long-term entitlements (Eric Leeper, Indiana)
- Financing of Affordable Care Act
- Regulations etc.
- Bayesian Methods
- Probably well suited to the task, “Parameters are variables that not not change too often”
- No ugly  $\chi^2$  statistics to contend with.

## 1. Bayesian Statistics

The message is the mapping Prior  $\longrightarrow$  Posterior

Clifford Hildreth, 1963, "*Bayesian Statisticians and Remote Clients*" Econometrica, Vol. 31, No. 3 (Jul., 1963), pp. 422-438.

"The usefulness of this arrangement clearly depends on finding sets of prior distributions which will contain satisfactory approximations for quite a few clients without imposing prohibitive computation and publication burdens. It seems natural to consider parametric families of prior distributions with corresponding posterior families. The statistician then transmits a set of functions mapping prior parameters into posterior parameters, the functions being determined by the observations and their conditional distribution, given the parameters. Raiffa and Schlaifer [2, Ch. 3] have developed this procedure for some interesting classes of cases."

## The Mechanism

Under standard preferences volatility does not carry a risk premium. The log MRS is

$$m_t = \beta - \gamma(c_{t+1} - c_t)$$

Stochastic volatility generates a time varying price of consumption risk (often confused with a risk premium) but volatility in and of itself carries no risk premium.

In the Epstein-Zin framework

$$m_t = (\theta/\psi)(c_{t+1} - c_t) + (\theta - 1)r_{c,t+1} + \dots$$

where  $r_{c,t+1}$  is the return on the aggregate wealth endowment. Now endowment volatility matters through its effects on endowment volatility,

## Monetary Policy Effects

Here

$$\sigma_{c,t} = \sqrt{\delta_c(s_t) + \tilde{\sigma}_{c,t}^2}$$

$$\sigma_{\pi,t} = \sqrt{\delta_{\pi}(s_t) + \tilde{\sigma}_{\pi,t}^2}$$

where  $\delta_c(s_t)$  and  $\delta_{\pi}(s_t)$  are functions of the Markov state  $s_t$  exogenously set by the monetary authority. These functions are set first and the entire equilibrium of the system adjusts to their settings. Risk premium on bonds and equities all have to adjust to how these functions are set.

## Additional Comments

- Classical rational expectations setup where the solution is very demanding to compute.
- Maybe endogenize the effect of monetary policy?
- How does fiscal policy fit into the setup. Start with a model in the fiscal theory of the price level.
- Do we want to use the data from the 1970s and 1980s?
- Is the MCMC chain actually mixing?
  - The transition parameters move a little bit off their prior means
  - Non-policy parameters barely move from prior means
  - The regime switching parameters seem to move off prior means
  - Nuisance parameters barely budged from prior means
- Are we looking at a calibration disguised as an estimation?

## A Recent Quote

By ALEX J. POLLOCK WSJ, March 22, 2015 6:47 p.m. ET

The calls in Washington to audit the Federal Reserve are not for a narrow, bean-counting review of the institutions financial statements. The audits goal is more fundamental: to assure that the checks and balances in a democratic government also apply to central bankers. It means figuring out how our elected representatives can effectively oversee unelected monetary experts.

History shows that these so-called experts are prone to destructive inflationary and deflationary blunders, and that the Feds actions over the last century represent the greatest systemic risk of any financial organization in the world. These actions include the runaway inflation after World War I and the overreaction leading to the depression of 1921; the failure to liquefy the banking crisis of the 1930s; setting off the internationally disastrous great inflation of the 1970s; and more recently stoking a housing bubble while failing to recognize that it was a bubble.

The Federal Reserve, established in 1913, was a prime example of the dream-world that President Woodrow Wilson imported from the theorists of the German Empire the notion of government based on the superior knowledge of independent experts that bypasses the messy and undisciplined world of democratic politics. The fatal flaw? The Fed has no superior economic knowledge. It has only forecasts as unreliable as everybody else's, and theories as debatable. Hence its many mistakes.

Since the Great Recession ended the Fed has been in overdrive. It is running an unprecedented, giant monetary experiment. This experiment includes years of negative real interest rates, the creation of a huge asset-price inflation, and the monetization of real-estate mortgages and long-term bonds. Should the Fed, or anybody, be allowed to carry out such vast and very risky experiments without effective supervision? The correct answer is: no.

Opponents say an audit would threaten the Fed's independence. That's precisely why it's necessary. The promoters of Fed independence, which of course include the Fed itself, must believe that the Fed is competent to have the unchecked power of manipulating money and credit, or in a grandiose variation, of managing the economy. They must believe that the Fed knows what the results of its manipulations will be, when manifestly it does



not. The century-long record of the Fed provides no evidence that the Fed is competent to be entrusted with this enormous discretionary power.

The historical argument against letting Congress play a role in monetary issues is that elected politicians are always inflationist, and it takes an independent body to stand up for sound money. Yet now we have the reverse of the historical argument: a sound-money Congress confronted by an inflationist central bank Fed that endlessly repeats its commitment to perpetual inflation at its target rate of 2

Here is the reality: The Fed is a creature of Congress, which created it and has since amended the legislation that authorizes its existence on numerous occasions. In the 1970s, Congress, with Democratic majorities, made two efforts to bring the Fed under more control. In the Humphrey-Hawkins Act of 1978, it required regular reports to Congress by the Fed. These hearings achieve nothing but the Kabuki theater of scripted presentations and sparring over questions and answers.

In the Federal Reserve Reform Act of 1977, Congress defined a triple mandate for the Fed to follow: stable prices, maximum employment and moderate long-term interest rates. The Fed has dropped any mention of one-third of its assignment moderate long-term

interest rates and redefined stable prices to suit itself. It tells us in remarkable newspeak that stable prices really means prices that always go up.

How is Congress effectively to oversee its creation? Congress is too big and on average not sufficiently knowledgeable to do so directly that's why it has committees. But the House Financial Services Committee is also very large, with 60 members, and both congressional banking committees have numerous other difficult areas of jurisdiction, not least being the crisis-prone housing-finance sector.

So I propose that Congress should organize a new Joint Committee on the Federal Reserve. The Fed would be its sole but crucial jurisdiction. All Humphrey-Hawkins reports should be made to this joint committee, and it should have the power to audit whatever about the Fed it deems appropriate.

Such a committee should have a relatively small membership, made up of senators and congressmen who become very knowledgeable about the Fed, central banking, the international relations of central banks and related issues. Like the Senate Select Committee on Intelligence, it should include ex officio members from the leadership, but in this case, from both houses.

**Real Effects of Monetary Policy Uncertainly**

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The money question, as fiery historical debates called it, profoundly affects everything else. It is far too important to be left to a fiefdom Fed.

By ALEX J. POLLOCK WSJ, March 22, 2015 6:47 p.m. ET

Mr. Pollock is a resident fellow at the American Enterprise Institute. He was president and CEO of the Federal Home Loan Bank of Chicago, 1991-2004.