

Inflation, Inflation Fears, and Public Debt

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The demise of $MV = PY$

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- ▶ This implies a simple unidirectional causal model: money growth determines the growth of nominal output PY , and since it can have no long run effect on output, it alone determines inflation in the long run.

Why this no longer works: everything pays interest

- ▶ In the simple monetarist models, M is non-interest-bearing government-issued currency.
- ▶ In slightly more sophisticated ones it includes bank-created money whose amount is controlled by the quantity of non-interest-bearing, government-created “high-powered” money.

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- ▶ In rich economies today, nearly all deposits in principle pay interest, including checking accounts and reserve deposits at central banks.
- ▶ Only currency is left as non-interest-bearing government paper, and currency is not M .

Why this no longer works: nothing pays interest

- ▶ While central bank reserve deposits pay interest, the rate is at the moment very low in many countries, including the US and the Euro area.
- ▶ Short-term government debt also returns very low interest — less than reserve deposits in the US.
- ▶ This has led to banks' willingness to hold reserve deposits far in excess of required reserve ratios, completely undoing the “money multiplier” that used to connect M to the amount of high-powered money.
- ▶ Reserves are interest-bearing government debt, not much different from treasury bills.

Another way to think about determination of the price level

$$\frac{B_t}{P_t} = E_t \left[\sum_{s=1}^{\infty} \rho^{-s} \tau_{t+s} \right] .$$

- ▶ B_t is the current market value of nominal government debt, P_t is the price level, ρ is the real interest rate, and τ_t is the primary surplus: government revenue minus expenditures + interest expense.
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- ▶ This is a simplification. It assumes constant ρ , when (like V) it is only fairly stable.
- ▶ In half an hour, I don't have time to explain this theory in detail, especially if you have already learned $MV = PY$ too well.
- ▶ If you have a background in finance, the theory may seem obvious too you. Otherwise, let's accept it for the time being and consider some of its implications.

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- ▶ Current B and future τ are both under the control of policy.
- ▶ If the debt is not one-period debt, changes in long rates — i.e. expectations of future central bank policy rates — affect current B , not just current nominal deficits.
- ▶ In contrast to $MV = PY$, this equation depends on market expectations of *future* policy actions as well as actions today.

Could debt accumulation lead to runaway inflation?

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- ▶ The assumption that allows simple monetarist models to treat the price level as determined entirely by monetary policy is that current deficits create expectations of offsetting future surpluses.
- ▶ It might seem more plausible that current deficits create expectations of future deficits, or at least reduced future surpluses.

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- ▶ When primary surpluses are rigid, raising interest rates simply increases the rate of issue of nominal debt.
- ▶ With such fiscal policy, interest rate rises are inflationary, not contractionary.

Fiscal pessimism

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- ▶ In 2010 in the US, 60% of non-retirees believed that social security would not be able to provide them benefits in retirement.
- ▶ 56% of retirees believed their current level of benefits would not be maintained.
- ▶ With these beliefs, deficits that seem to arise out of crisis and political gridlock increase uncertainty about who will be affected by future fiscal adjustments and may increase rather than decrease pessimism about future taxes and benefits.
- ▶ In other words, the standard assumption that increased current deficits draw forth future taxes or benefit cuts likely characterizes current beliefs in these countries.

How we get stuck at zero interest rates (the ZLB)

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- ▶ This prediction looks uncomfortably like what we have seen in the US, Europe and Japan.
- ▶ There is no self-correcting mechanism to such an outcome.

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- ▶ It requires fiscal policy that is expansionary now, without a commitment to cut future expenditures or raise future taxes to preserve current price stability.
- ▶ This requires the political system to make commitments across time and stick to them.

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- ▶ Such a government need never default, so the theory ignores default.
- ▶ European fiscal authorities do not issue debt in a currency they control.
- ▶ Their sovereign debt has defaulted recently, and is still considered defaultable by markets.

Implications for Europe

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- ▶ We don't have time to elaborate the theory to cover default, multiple fiscal authorities, and unclear fiscal backing of the central bank, but here are some of its implications.
- ▶ The EMU was set up with the mistaken idea that it was possible to completely separate monetary and fiscal policy.
- ▶ Every monetary policy action has fiscal implications. That a commitment by the ECB to thwart speculative runs on EMU sovereign debt creates fiscal risk, via a potential need for capital injection into the ECB, has become evident.

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- ▶ Without fiscal backing, combating a speculative attack could put the ECB's balance sheet at risk, which would limit its ability to control inflation.
- ▶ No single government in the EMU can make the kind of expansionary fiscal commitment needed to exit a ZLB trap.
- ▶ So a combination of fear of inflation and an incomplete set of fiscal institutions could leave Europe in an environment of low inflation or deflation for a long time.