

Monetary Policy in a Liquidity Trap

Monetary Policy under Normal conditions

Money supply = currency in hands of public + demand deposits

Monetary base = currency in hands of public + bank reserves

What Fed controls is monetary base thru open market operations in order to affect interest rates. Public decides how much of the base is currency in their hands, and how much is bank reserves. In '30s, public came to mistrust banks and currency in hands of public went way up.

Contractionary Monetary Policy: Open market sale of treasury bills to commercial banks; drives down price of bonds and raises short-term interest rates; banks pay with bank reserves which then must be replenished by calling in loans (or not making new loans); rise in interest rates reduces Investment spending by firms and durable consumption spending by households—but mainly residential construction. Works; can always raise interest rates enough to limit residential construction. See 1980-1982.

Expansionary Monetary Policy: Open market purchase of treasury bills from commercial banks; drives up price of bonds and lowers short-term interest rates. Banks now have excess reserves that they lend to firms or mortgage borrowers. Money multiplier kicks in because of fractional reserve system. Because banks only need to hold a fraction of their deposits as reserves and can lend out up to 90%, get multiplied increase in money supply. Worked during 1982 – 85.

Monetary Policy In a Liquidity Trap

Problem is that after a debt-driven asset bubble bursts have balance sheet recession. Firms and/or households are trying to pay down debts (or to continue to make mortgage payments) so they cut consumption that causes deep recession. In Loanable Funds market, saving function shifts right. But as consumption falls, firms cut investment spending; may be aggravated by freezing up of financial system so only highest rated firms can get credit.

Combination of shift to right of saving and to left of investment means that full employment requires a negative nominal interest rate—Fed estimates were that rate needed to be negative 5%.

But Zero Lower Bound

Money is Endogenous—Money Demand determines Money Supply in Liquidity Trap

In normal times open market purchases by central bank are expansionary—commercial bank reserves are increased and banks are driven by profit motive to make loans. But those loans create demand deposits and hence money. So the private, profit-driven, commercial banks create money.

But this process depends upon firms and households being willing to borrow. In a balance sheet recession with private agents trying to pay down debt, the last thing they want to do is borrow.

So even though commercial banks have excess reserves, they cannot find worthy borrowers willing to borrow. And if no one is borrowing, the money supply does not increase. Worse if banks don't want to lend, because they may know that their own balance sheet is shaky, and that they think loans made to firms in a recession are not a good risk. Central bank is "pushing on a string".

Deflation is a serious possibility, as the recession puts downward pressure on prices (in context of inadequate demand) and wages (though we have been surprised at the downward inflexibility of wages and prices in this recession).

And despite decades of belief that when the central bank creates money it will cause inflation, banks have not been able to even reach their low inflation targets in this recession (Japan, U.S., Europe).

Conclusion is that increasing the monetary base is a necessary but not sufficient condition for creating inflation. Sufficient condition is that the economy must be close to full employment for increases in the monetary base to create inflation.

So if during a balance sheet recession the central bank cannot lower interest rates because of the zero lower bound, cannot increase the money supply despite big increases in the monetary base, and cannot prevent deflation, then monetary policy is pretty impotent.

To their credit, the Fed tried "Quantitative Easing", the purchase of longer-term bonds, both public and private. Its effect has been positive but small—too small to effectively stimulate the economy out of recession.

Are driven to the conclusion that in a balance sheet recession we must depend on fiscal policy to get us out. That if the private sector is saving to pay down debt, some agent must make up for the decline in consumption and investment spending—the government must temporarily increase its spending to offset the decline in private spending. And it must borrow the funds necessary, for taxing the private sector to prevent a budget deficit will only reduce private spending further, offsetting the spending by the government and preventing recovery.

Koo's analysis of the '30s—see handout from Holy Grail, chap. 3—shows that the money supply started growing only when the government started borrowing to finance FDR's deficit spending. Deficits never got very big because they were largely self-financing—as spending increased, GDP grew, tax revenue grew as well, and deficits were not large.

Generations of economists have looked at the small deficits and concluded that fiscal stimulus was too small to boost the economy, and it must have been expansionary monetary policy starting in 1933 that got us out of the depression. But the size of the deficit is the wrong measure if deficits are largely self-financing.

In fact, it was fiscal deficits that allowed the money supply to increase, since someone in the economy was finally borrowing and the demand for funds allowed the supply of money to increase—endogenous money. So the increase in the money supply was not the cause of the recovery; the real cause of the recovery was deficit fiscal spending which not only caused GDP to grow, but also caused the money supply to grow, since someone was finally borrowing.

Fed has quintupled the monetary base since 2007. Yet the money supply has not grown in anywhere near the same proportion; interest rates are stuck at their lowest levels in decades (liquidity trap); inflation rates are below their low targets, and we flirted with deflation in 2010 in US, are close to deflation today in Europe, and the price level has fallen during several years-long stretches in Japan since 1990.