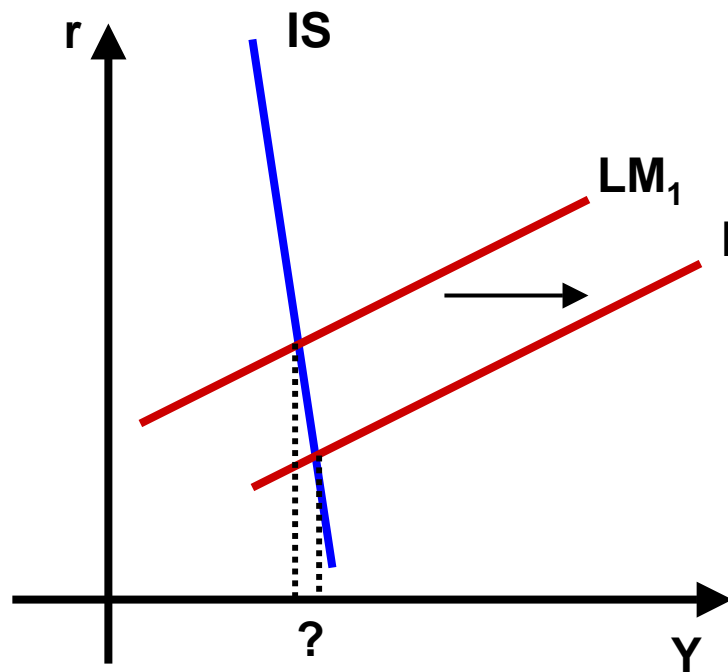


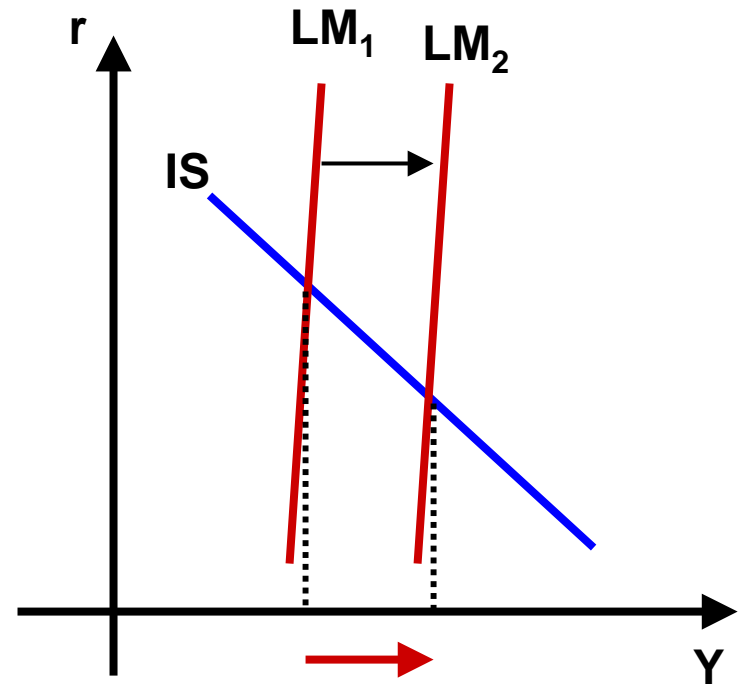
Monetarism

Graduate Macroeconomics I
ECON 309 – Cunningham

The Effects of Money Supply Changes on the Real Economy

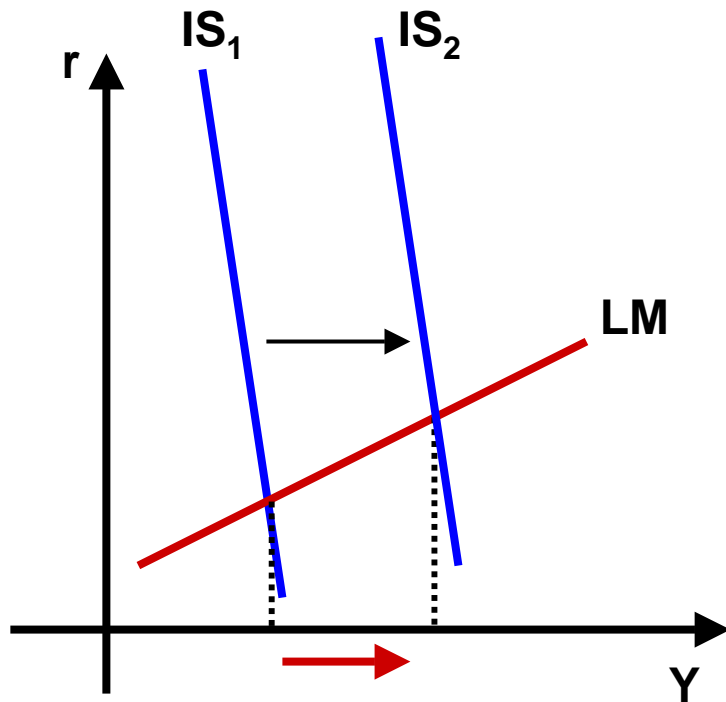


Keynesian View

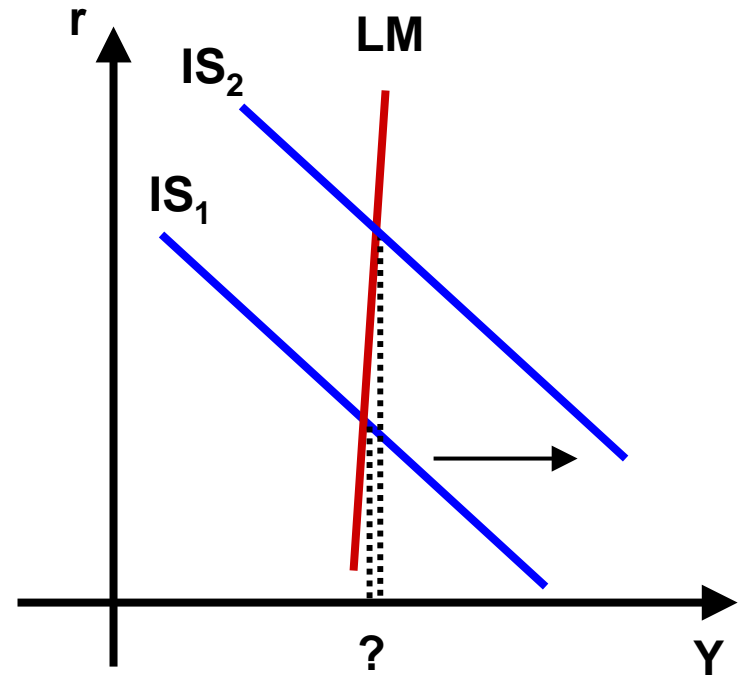


Monetarist View

The Effects of Fiscal Changes on the Real Economy



Keynesian View



Monetarist View

Overview

- **Milton Friedman**
 - ⇒ mid-1950s, University of Chicago Neoclassical price theorist
 - ⇒ Establish career on PIH and the underpinnings of Marshall's basic supply and demand model
- Chicago School is distinctly neoclassical, with substantial Austrian influence. *To oversimplify:* Austrians are neoclassical in spirit, with a stronger appreciation of the roles of uncertainty and institutions.
- Money and Banking Workshop at Chicago.
- Friedman is a self-proclaimed quantity theorist and classical liberal. According to Friedman, "Inflation is everywhere and at all times a monetary phenomenon." (To the Keynesians, inflation is the result of excess demand for goods and services, and hence arises out of conditions in the real sector.)
- Karl Brunner coins the phrase "Monetarism"; Brunner and Alan Meltzer construct the microfoundations of Monetarism, creating a second "camp."

What is Monetarism?

According to David Laidler (*Economic Journal*, March 1981, p. 1-2), Monetarism can be characterized by four elements:

- (I) A 'quantity theory' approach to macroeconomic analysis in two distinct senses: (a) that used by Milton Friedman (1956) to describe a theory of the demand for money, and (b) the more traditional sense of a view that fluctuations in the quantity of money are the dominant cause of fluctuations in money income.
- (II) The analysis of the division of money income fluctuations between the price level and real income in terms of an expectations augmented Phillips curve whose structure rules out an economically significant long-run inverse trade off between the variables.
- (III) A monetary approach to the balance-of-payments and exchange rate theory.
- (IV) (a) Antipathy toward activist stabilization policy, either monetary or fiscal, and to wage and price controls, and (b) support for long-run monetary policy "rules" or at least prestated 'targets', cast in terms of the behavior of some monetary aggregate rather than of the level of interest rates.

Friedman's Restatement of the Quantity Theory

Friedman, M. "The Quantity Theory of Money--A Restatement." In *Studies in the Quantity Theory of Money*, Milton Friedman, editor. Univ. of Chicago Press (1956).

According to Friedman, total income (Y) is explained by nominal wealth (W) and the returns (r) that it generates. Explicitly:

$$Y = Wr.$$

If wealth and returns are estimated via expectations of lifelong streams, then Y is really permanent income. According to the quantity theory, money demand is proportional to the value of nominal transactions, which should be a function of permanent income.

Restatement, Continued

Friedman expands the detail of wealth and returns to identify the variety of assets and returns in the potential portfolio:

$$M = f\left(P, r_b, r_e, r_a, w, \gamma/r; u\right)$$

where P is the price level, r_b is the return on bonds, r_e is the return on equities, r_a is the return on real assets, w is the ratio of human to nonhuman wealth (to capture the return on “human wealth”), γ/r is total wealth, and u is the “portmanteau variable.”

We can simplify this to: $M = f\left(\begin{matrix} P, r_b, r_e, \pi, Y \\ (+) (-) (-) (-) (+) \end{matrix}\right)$

Note: at equilibrium, the inflation rate should be equal to the nominal return on the entire (aggregate) stock of real (physical) assets. If individuals do not suffer money illusion, they are not fooled by changes to scale, and f is linearly homogeneous in prices and nominals.

Restatement, Continued

So,

$$\lambda M = f(\lambda P, r_b, r_e, \pi, \lambda Y)$$

This must hold for any value of λ , even $\lambda=1/Y$. This implies that:

$$\frac{M}{Y} = f\left(\frac{P}{Y}, r_b, r_e, \pi, 1\right)$$

More simply,

$$M = f(\bullet)Py$$

But since $Y=Py$,

$$M = f(\bullet)Y$$

which closely resembles the Cambridge form of the equation of exchange:

$$M = kPy.$$

Restatement, Continued

This implies that the cash balances “constant” k , or equivalently, the circular velocity of money V in $MV=Py$, is really a (stable) function of a few well-defined variables.

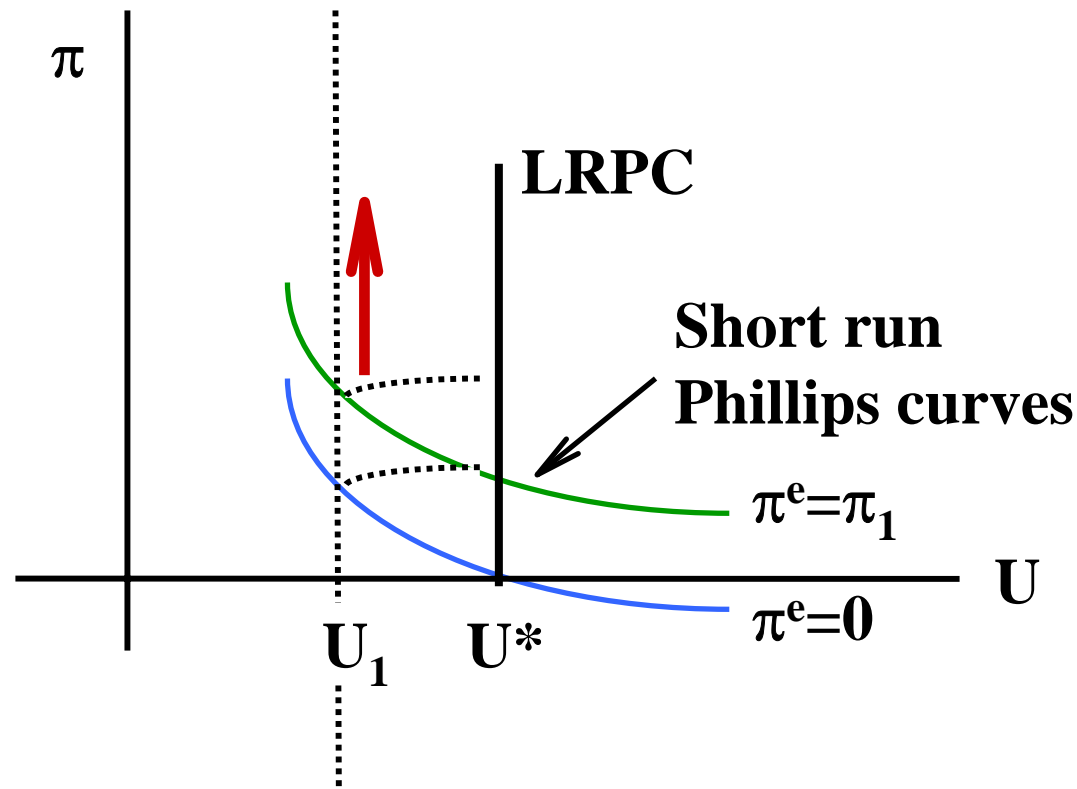
Interpretation: Over any reasonable period of time, the rates of return in this function will all move together (in “lock-step”). That is, the yield curve maintains a constant shape, even though it may shift up or down. Thus, substitutions among assets are not likely to take place except on the very short run. Therefore, f and k are quite stable, so that the results of the traditional quantity theory still obtain.

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Expectations-Augmented Phillips Curve and the Accelerationist Hypothesis



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CGRR Argument 1: Based on PIH

- The Permanent Income Hypothesis suggests that permanent income changes slowly. Consumption is a positive function of permanent income.
- Therefore, consumption expenditures should change slowly.
- And the nominal value of transactions should change slowly.
- According to the transaction form of the equation of exchange (and the Quantity Theory), $M=kPT$; money demand is proportion to nominal value of transactions, and does not depend (significantly) on other factors.
- If the nominal value of transactions (PT) changes slowly, then money demand (M) must also change slowly.
- If money demand changes slowly, then rapid changes in the money supply, like that which results from activist monetary policy attempts, must put the money markets into disequilibrium.
- The Say's Law (barter) economy is optimal. Only when the money markets are in equilibrium does the monetary economy collapse to this optimal case.

THEREFORE: Adopt a rule of slow steady growth of the money supply to maintain long-run equilibrium and optimal economic conditions.

CGRR Argument 2: Based on Long & Variable Lags

- Discretionary, countercyclical money supply policy is not possible because the effects of changes in the money supply on output and employment are long and variable, and even fiscal policy suffers from a variety of lags.
- Policy (fiscal and monetary) takes effect only after significant and variable lags:
 - ⇒ Recognition lags
 - ⇒ Policy formulation lags
 - ⇒ Administrative lags
 - ⇒ Impact lags
- This implies the necessity for VERY good forecasting to be able to make such policy workable. The state of the art of forecasting is not that good.
- So, policy changes implemented with the intention of creating countercyclical effects, are (equally) likely to result in procyclical effects, worsening things.
- **THEREFORE**: *The best you can do* is to provide for the constant growth of the money supply.

CGRR Argument 3: Based on Money as an Institution

- **Money is a social institution.**
 - ⇒ **Austrian tradition/Chicago tradition**
 - ⇒ **Analogy to common law**
- **Common law analogy:**
 - ⇒ **Trust (Simmel)**
 - ⇒ **Basis of economic engagement**
 - ⇒ **Supreme Court vs. Board of Governors**
 - ⇒ **Impact of a breakdown in trust**
 - ⇒ **Erratic changes in law or erratic changes in monetary policy leads to a breakdown in trust in the institutions, hence a breakdown in the economy.**

THEREFORE: Adopt a constant growth rate rule. Discretionary monetary policy is abhorrent to trust, and has been destabilizing. It undermines the very fabric of the monetary economy.

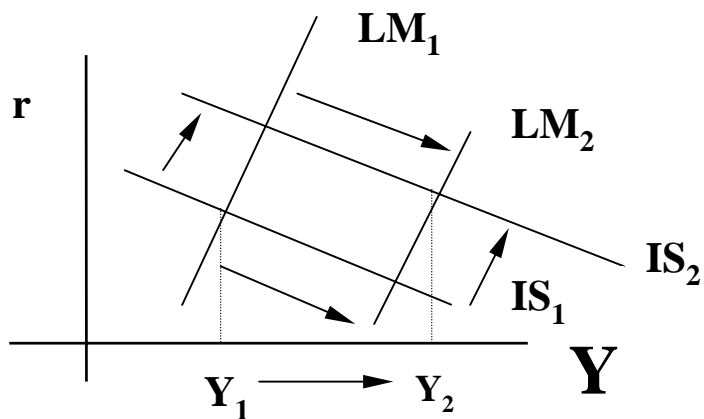
CGRR Argument 4: Based on Stable M^d and Velocity

- In the money demand relation, $MV=PY$, the velocity of money (V) is a stable function of a few well defined variables.
- Based on this simple functional relationship then, steady money supply growth should yield steady nominal output growth.
- If the money supply growth does not exceed that rate consistent with full employment, inflation will approach zero, and prices (P) will remain steady.
- Therefore, real output will grow steadily, and short-run fluctuations will be not be caused my money supply fluctuations. In fact, given the intrinsically stable real economy, output and employment fluctuations will be minimized.

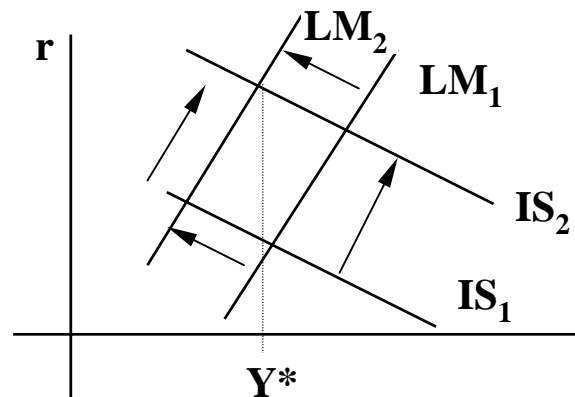
THEREFORE: Adopt a rule requiring a constant growth rate of the money supply consistent with long-run full employment and zero inflation.

Other Claims

- Restrictive fiscal policy, without a reduction in the rate of monetary expansion cannot reduce the rate of inflation.
- The only conditions under which a money-financed fiscal policy might be powerful are if the fiscal policy is deficit-financed and offset by money creation. This keeps the LM curve shifting to the right, eventually dominating the once and for all shift of the IS curve produced by a rise in government expenditures or a decline in taxes.



WITH MONETARY
ACCOMMODATION



WITHOUT MONETARY
ACCOMMODATION