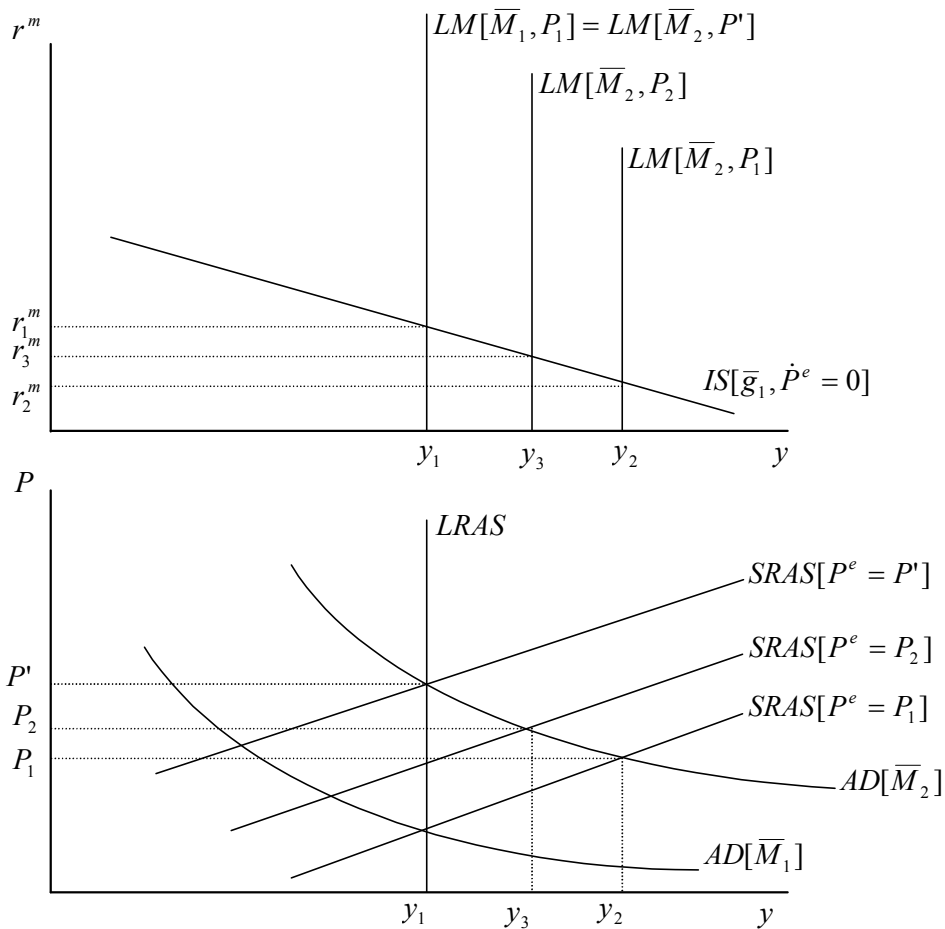


## *Macroeconomics: BSc Year One*

### **The Monetarist View of Interest**

Monetarists claim that the upward trend in interest rates from the 1950s to the 1970s was caused by a serious policy error. The government as a whole wants low interest rates, to encourage investment, and thus would wish to avoid this error if possible.

It is important to realise that Monetarists believe the LM curve is vertical, since the demand for money does not depend on the interest rate. This fact helps to demonstrate government thinking at the time.



If the government wants to achieve a lower interest rate than  $r_1^m$ , it expands the quantity of money from  $\bar{M}_1$  to  $\bar{M}_2$ , to get a short run equilibrium at  $r_2^m$ . Eventually, however, price expectations will adjust to the new price,  $P_2$ , and a similar process to that described previously is followed, until eventually the economy is back on the original LM curve, with

### The Monetarist View of Interest

the original interest rate and income level, but a higher price point. There has, however, been a period of lower interest rates, and the government seeks to repeat the process.

This process, however, generates inflation, which may become expected as before, leading to no short-term benefits. Also, the IS curve will shift up, because  $\dot{P}^e \neq 0$ , leading to a higher interest rate. The long run effect is the opposite of the short run effect in terms of interest rates, but inflation still occurs. The government must then repeat the policy to lower interest rates by expanding money supply quicker than expected.

The long-term effects can also be explained intuitively; when people make economic decisions, they base assumptions on the rate of return measured in terms of goods. If inflation is high, the interest rate must be high to make rates of return equivalent.

### Monetarism and Real Output

Income is a real variable, so we can think of it as having two components, like unemployment:

$$y = y_n + [y - y_n],$$

The second element, the variations about the natural rate due to unexpected changes in money supply, is transitory, and over a long period the shocks average to zero.

If something affects  $y_n$ , the average long-term trend changes, generally increasing. Short-term shocks create fluctuations around this trend. We need to examine why  $y_n$  is increasing; the standard theory is that this is due to technological change. This does not explain, however, why countries have differing growth rates.

### Evidence of Monetarism

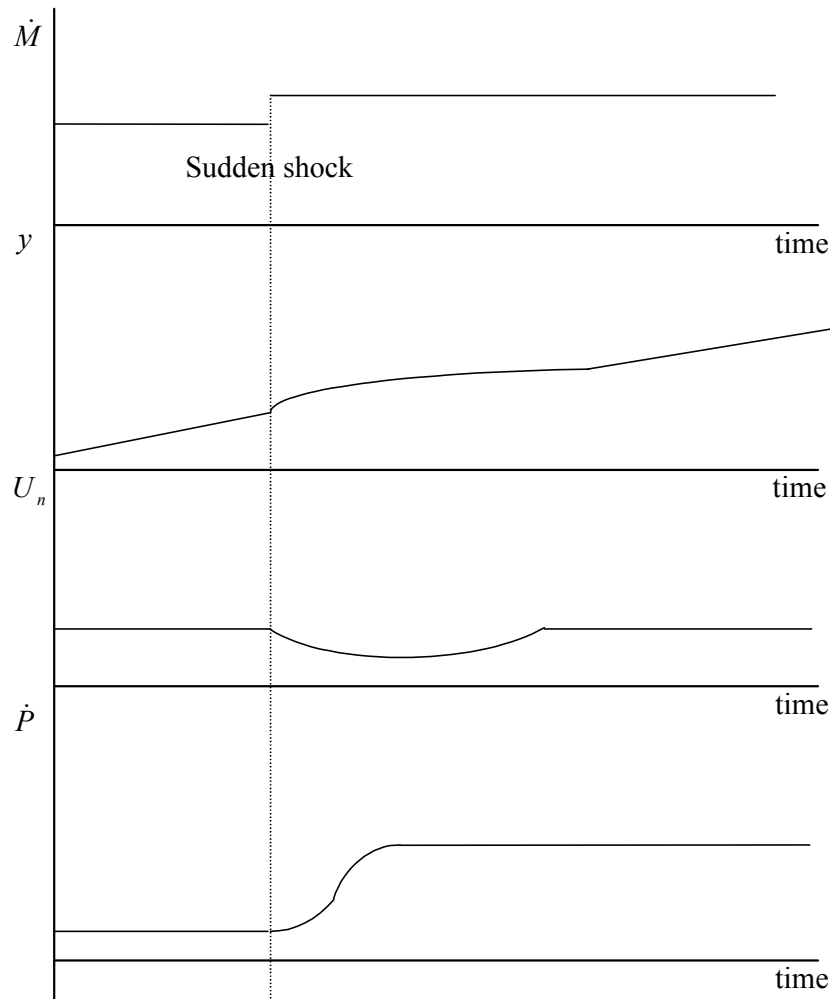
As for the classical model, there is a set of testable propositions to see whether monetarism exists:

- The quantity of money is the dominant influence on nominal spending; that is  $\dot{P}\dot{y} = \dot{M}$ . Looking at time series for the UK since 1870, this is largely true.
- “Expected” changes in the quantity of money affect prices, and not real output; that is  $\dot{P} = \dot{M}^e$  and  $y \neq f(\dot{M}^e)$ . This is certainly broadly true in the long-term, when such changes in money supply may be expected, but there is a weak correlation between real output and money supply.

- “Unexpected” changes in the quantity of money affect real output; that is  $y = f(M^u)$ . It is hard to identify which changes are unexpected, but the UK recession in 1989-1992 gives an indication of this.
- Movements in monetary growth lead, in the end, to movements in interest rates of the same size and in the same direction. Again, time series for the UK since 1870 broadly confirms this.

Note that the second proposition implies that any change in money supply has no effect on any real variable, and that monetary policy is irrelevant in the long run – it only changes inflation. Further studies, however, imply that sharp increases in money growth do not lead to increases in real output, but sharp decreases do lower the natural level of real output. The most recent econometric evidence shows that expected monetary policy changes do affect the output of an economy, contrary to the Monetarist model.

For the third proposition, we can draw a time diagram, as below, to demonstrate the effect of a shock in money supply on the various real variables in the economy.



Finally, in the fourth observation, it should be noted that expansionary monetary policy eventually causes high interest rates by raising actual and expected inflation;

$$r^m = k_0 + \dot{P}^e$$

$$r^m = f(\dot{M})$$

### **Summarising Monetarist Theory**

Monetarism has many strengths:

- a reasonably coherent explanation of the phenomena observed
- good explanations of inflation and interest rates
- a believable account of fluctuations in economic activity
- a clear policy ‘instruction set’

There are, however, a few weaknesses:

- the central relationship (between  $\dot{M}$  and  $\dot{P}$ ) has looked slightly shaky in recent years
- it only looks for long term growth, missing out several crucial details