

Notes On

**Monetary, Credit and (Other) Transmission Processes: A
Monetarist Perspective**

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An economy is a dynamic system. Exogenous shocks influence the system through the propagation mechanism. The propagation of the impulse is called transmission. The economy responds to the shock through the transmission mechanism. Transmission mechanisms are numerous and are specific to ones theory of how the economy functions. The monetarist view is one hypothesis of how a dynamic economic system responds to shocks and transmits the effects throughout the system. *Monetary, Credit and (Other) Transmission Processes: A Monetarist Perspective* analyzes the propagation impulse in a closed economy and compares the monetarist view with the standard model. The paper examines the effects of a monetary impulse on relative prices of assets in the economy. Additionally, the paper provides current evidence of the monetarist transmission process and compares the monetarist and lending models.

MAIN RESULTS

- A monetary impulse affects the ratio of money stocks to the stocks of other assets in the economy. The impulse changes the marginal utility of money, assets and consumption. The impulse is transmitted through changes in relative prices and real money balances.
- The productivity of money occurs due to information uncertainty. Uncertainty from the monetarist perspective arises due to several factors:
 - The permanence or transitory nature of the change.
 - Future asset values and output increases the cost of acquiring information.
 - Money lowers the cost of acquiring information about the changes.
 - Inflationary affects on holding money.
- The relative prices of assets within the economy change due to the monetary impulse affecting the economy. The relative prices adjust as information about the current impulse and future impulses become available. The changes in relative prices cause consumption, production and inventories to adjust.
- The monetary transmission process begins in the asset market, particularly when the duration of the impulse is uncertain, due to lower information and transaction costs. There are several implications of the asset market model:
 - Changes in the monetary base and the asset stocks affects asset price levels and interest rates.
 - Contrary to the IS-LM model, control of the interest rate by a central bank does not control the asset and output market responses.
 - The monetarist view discounts the Keynesian liquidity trap. Increasing the monetary base does not affect the interest rate however the price of assets would rise, affecting consumption despite the liquidity trap.
- The transmission of a monetary impulse, due to information costs, affects the output market in several ways:
 - After the monetary impulse, asset markets quickly return to equilibrium, the output market lags. The time discrepancy alters the relative cost of new production and the marginal product of capital.
 - The change in relative asset prices and resulting affect on output leads to a change in aggregate demand.
- The changes in the asset and output market affects government spending and tax collections thus affecting the government budget deficit/surplus.

- Monetary impulse and the corresponding market responses cause temporary rate changes in interest rates, asset prices and output. These rate change fluctuations are common to the business cycle.
- The speed in which the economy finds a new equilibrium after a monetary impulse is determined by factors such as the nature of deficit financing and the nature and variations of previous shocks. Convergence at equilibrium is subject to three conditions:
 - Arbitrage opportunities exist assuring that asset and output prices will find equilibrium.
 - The equalization of expected and actual values
 - Conditions dictate that monetary and fiscal impulses cease.
- The magnitude and duration of a monetary impulse is dependant on the policies that follow the initial impulse.
- The monetarist transmission system incorporates the lending channel with the expansion of the definition of assets. The lending channel as described by Bernanke (1993), consists of monetary impulses changing the supply of loans relative to other loan forms, and the dependence of some borrowers on bank loans. The existence of the lending channel mechanism defined by Bernanke is disputed. The author notes that empirical evidence is weak and system does not function as described.

INTUITION AND THEORY

- The main feature of the monetarist system is the use of flexible rules in the application of policy to reduce the cost of acquiring information.
- The classical Phillips curve is too restrictive and mechanical. Change in the money stock does more than alter a single interest rate. The monetary impulse changes the expected and actual price of assets. The change in asset prices alters the term structure of interest rates, borrowing and lending, and the exchange rate.
- The IS-LM model does not adequately describe the transmission process leaving out key features:
 - Changes in asset stocks due to capital accumulation and new investment.
 - Does not specify if the interest rate in the model is a long or short term rate. Each rate affects model components in different ways.
 - Financial intermediaries play no role in the model.
 - The model assumes bonds are the only substitute for money.
 - Short term interest rate changes are transitory and do not materially affect spending decisions.
- Why does an unanticipated change in the nominal stock of money affect relative prices and real variables?
- Unanticipated injection or withdrawal of base money people deal with in different ways...Examples

MODEL

- Monetarist model
 - 3 assets

- ✓ money or base money is nominally denominated asset that provides real services as medium of exchange
- ✓ bonds or securities also nominally denominated asset that yields nominal return I (rate of interest)
- ✓ stock of real capital or claim to it, yields a real return. Real capital has a price P
- Model must determine two relative prices to achieve portfolio balance for economy
- To describe the asset market, the model uses a supply and demand schedule with interest rates (I) on the vertical axis, prices (P) on the horizontal axis. The MM line is the money market and has a positive slope and the CM line is the securities and bond market and has a negative slope.
- To describe the output market, the model uses a supply and demand graph with prices (P) on the vertical axis and output (Y) on the horizontal axis. The lines on the graph are the full employment level of output (y^*), the positive sloping supply line (s) and negative sloping demand (d).

METHODOLOGY

- Change base and stock of securities have different effect on interest rate and asset price level
 - Choice of budgetary finance affects assets and prices
- Implication of standard IS-LM analysis
 - Controlling interest rates, a central bank can offset random changes in the demand for money

EMPIRICAL RESULTS

- Hardouvelis (1988) and Friedman and Kuttner (1993) found that the spread between short term and long term interest rates as well as the spread between commercial paper and Treasuries respectively, are measures of relative prices that are consistent with the monetarist hypothesis. The instruments fail to accurately measure price changes during cycles.
- The author compares the price changes in housing to the GDP deflator for the years 1971 to 1992. The graph illustrates results similar to those expected in literature with peaks in the rate of change in housing preceding the deflator by roughly 2 years.
- For the years 1985 to 1989 in Japan, housing prices doubled relative to GDP. From 1990 to 1992, housing prices fell 40% relative to GDP. The monetarist explanation follows:
 - Japan intervenes in the foreign exchange market with the dollar fixing the exchange rate within a narrow band. Japan increased their money growth and bought dollars. M1 grew 3.5% from 1982 to 1985 and 8.15% from 1985 to 1988. The increase in the monetary base increased inflation expectations. This encouraged the current purchase of land and housing. Equity prices rose and the cost of capital fell.

- The exchange rate effort ended in 1987. The monetary growth rate slowed from 9% to 3.5%. Inflation expectations reversed, lowering asset prices and bringing Japan into a recession.
- Evidence disputing the Lending Channel
 - Haubrich (1990) analyzed the independent lending transmission channel and found little support for the hypothesis.
 - In the post war period, academic evidence of the channel is weak.
 - The paper compares bank lending to borrowing in other credit markets during the Great Depression (Figure 5). The paper finds two reasons to doubt the lending channel:
 - Bank loans should have fallen faster than other forms of borrowing. The data does not support this assertion.
 - The decline in bank lending during the depression is easily explained as a response to declining nominal GDP.