THE FEDERAL FUNDS RATE AND THE CHANNELS OF MONETARY TRANSMISSION

Ben Bernanke and Alan Blinder 1993

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RESEARCH QUESTION

- Does Monetary Policy affect the real economy?
- What is the transmission mechanism of monetary policy? - Through bank loans.
- Isolate a variable which can be a direct measure for Federal Reserve Policy. -Fed Funds rate.
- Fed funds rate should respond to the state of the economy. -Unemployment and Inflation
- Fed funds rate movements are genuine exogenous policy changes- not endogenous responses to changes in economy.
- Impact of Fed Funds rate.

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POSITION IN LITERATURE

- Which is the best indicator of Monetary Policy? - Monetary aggregates: Friedman and Schwartz (1963), Sims (1972), Christiano and Ljungqvist (1988), Unanticipated money Barro (1977).
- Credit view (Monetary policy transmission through bank lending (Loans) channel) has been empirically unsuccessful. Stephen R King (1986 with unrestricted VAR)
- But it is risky to make structural inferences with unrestricted VARs.

IS FED FUNDS RATE A GOOD MEASURE OF MONETARY POLICY?

- Compare the Fed funds rate's predicting power in forecasting economic activity compared to other competing measures of monetary policy using Granger Causality and Variance Decomposition tests.

TABLE 1—MARGINAL SIGNIFICANCE LEVELS OF MONETARY INDICATORS FOR FORECASTING ALTERNATIVE MEASURES OF ECONOMIC ACTIVITY: SIX-VARIABLE PREDICTION EQUATIONS

Forecasted variable	M1	M2	BILL	BOND	FUNDS
A. *Sample Period 1959:7–1989:12:*					
Industrial production	0.92	0.10	0.071	0.26	0.017
Capacity utilization	0.74	0.22	0.16	0.40	0.031
Employment	0.45	0.27	0.0040	0.085	0.0004
Unemployment rate	0.96	0.37	0.0005	0.024	0.0001
Housing starts	0.50	0.32	0.52	0.014	0.22
Personal income	0.38	0.24	0.35	0.59	0.049
Retail sales	0.64	0.036	0.33	0.74	0.014
Consumption	0.96	0.11	0.12	0.46	0.0052
Durable-goods orders	0.87	0.22	0.28	0.19	0.039

IS FED FUNDS RATE A GOOD MEASURE OF MONETARY POLICY?

TABLE 2—VARIANCE DECOMPOSITIONS OF FORECASTED VARIABLES

Forecasted variable	Own lags	CPI	M1	M2	BILL	BOND	FUNDS
A. *Sample Period 1959:7–1989:12:*							
Industrial production	36.6	3.1	15.4	8.7	8.0	0.8	27.4
Personal income	39.7	1.3	21.0	3.5	9.5	1.7	23.3
Employment	38.9	7.0	10.5	0.6	9.8	2.7	30.6
Unemployment rate	31.9	7.2	10.5	0.6	9.9	1.9	37.9
Housing starts	28.8	1.4	3.9	1.8	38.6	14.3	11.2
Personal income	48.2	4.3	20.8	0.1	6.9	3.3	16.3
Retail sales	32.4	15.5	5.1	4.4	27.4	1.1	14.1
Consumption	18.2	13.1	16.0	2.2	28.4	5.3	16.8
Durable-goods orders	41.3	6.8	14.7	5.5	10.3	2.6	18.8

IF FED FUNDS RATE IS A GOOD MEASURE OF MONETARY POLICY, IT SHOULD RESPOND TO THE FED'S PERCEPTION OF THE ECONOMY

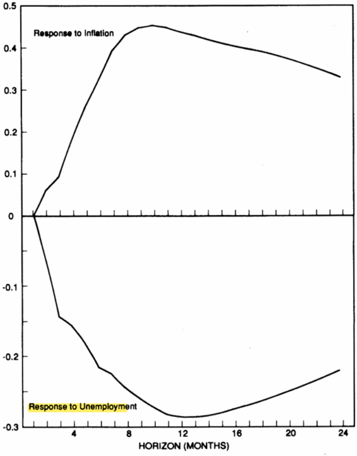
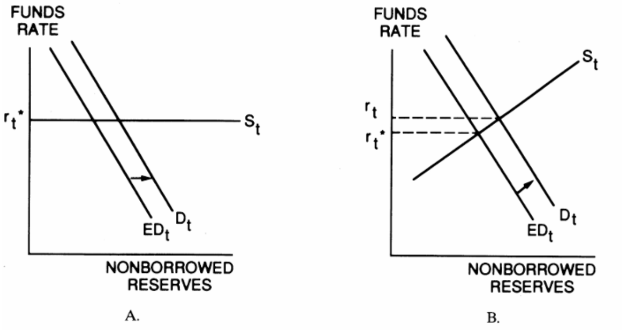


FIGURE 2. RESPONSES OF FUNDS RATE TO INFLATION AND UNEMPLOYMENT SHOCKS

SUPPLY AND DEMAND OF BANK RESERVES

- For Funds rate to be a good measure, they have to be unresponsive to changes in reserve demand.
- So Federal reserve should supply reserves completely elastically at the target funds rate



TRANSMISSION OF MONETARY POLICY

- Using VAR (with 6 lags) find the impact of Monetary policy on CPI, Unemployment and deposits, securities and loans.

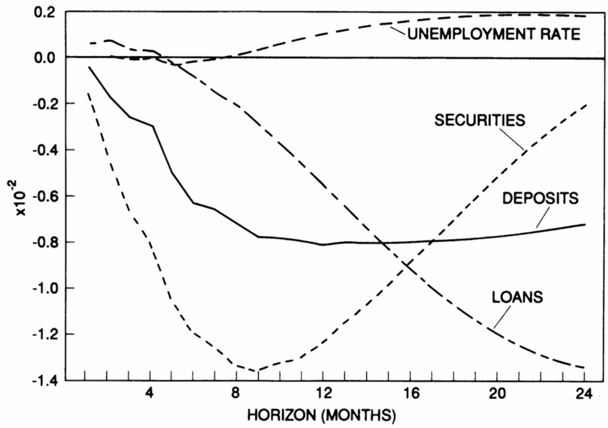


FIGURE 4. RESPONSES TO A SHOCK TO THE FUNDS RATE

SOME THOUGHTS

- None of the variables in the VAR setup are stationary (all are I(1)). So VAR cannot be used. We need to test for cointegration. (LR relationships as opposed to SR relationships)
- Authors do not mention confidence intervals at all.
- In this period, bank lending channel is quite important. But post 1979, results are quite different.

BERNANKE AND BLINDER EXTENSION (1973-2019)