

# Office Correspondence

Date July 31, 1973

To Chairman Burns

Subject: Demand and Supply Factors

From Lyle E. Gramley

in the Growth of  $M_1$ .

You asked for a brief memo explaining the reasoning which led to the view that shifts in the money demand function occurred in the first and second quarters of this year. The reasoning is as follows:

- (1) Demand for  $M_1$  is thought to be determined by the volume of transactions (for which nominal GNP may be used as a proxy) and interest rates, especially short-term rates. Money demand is positively related to GNP and negatively related to short-term interest rates.
- (2) In the first quarter, nominal GNP growth rose, and thereby increased the demand for money. Rising interest rates during the first quarter, and also late in 1972, were acting to reduce money demand.

The quarterly econometric model predicted that, given the actual levels of GNP and interest rates that prevailed,  $M_1$  should have increased at an annual rate of about 6 per cent.

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- (3) We take the shortfall of actual  $M_1$  growth from that predicted by the model as evidence of a downward shift in the money demand function. This is not to say that supply factors (e.g., Federal Reserve policy) had nothing to do with the slow growth of  $M_1$ . If the Fed had set out singlemindedly to keep  $M_1$  growing at (say) 6 per cent, it could have done so--or at least it could have accomplished a higher annual growth rate than 1.7 per cent. But it would have had to drive down interest rates substantially below actual levels to accomplish this.
- (4) In the second quarter, GNP growth declined and interest rates rose further. Both factors should have acted to reduce the demand for  $M_1$ . Growth in  $M_1$ , however, accelerated. An upward shift in money demand evidently occurred, probably a reaction to the early decline, at least in part.

The quarterly model predicted that, given actual GNP and interest rates,  $M_1$  should have risen at an annual rate of about 5 per cent.

To: Chairman Burns

- 2 -

- (5) Again, this is not to say that the Federal Reserve's willingness to let bank reserves grow rapidly during the second quarter had nothing to do with the rapid growth of  $M_1$ . But given the surge in demand, an effort to hold  $M_1$  growth to 5 per cent would have meant a huge rise in interest rates.