TABLE 5-1
THE TRANSMISSION MECHANISM

(1)	(2)	(3)	(4)
Change in real money supply	Portfolio adjustments lead to a change in asset prices and interest rates	Spending adjusts to the change in interest rates	Output adjusts to the change in aggregate demand

money and output does not exist. We refer to the responsiveness of aggregate demand—rather than investment spending—to the interest rate because consumption demand may also respond to the interest rate. Higher interest rates may lead to more saving and less consumption at a given level of income. Empirically, it has been difficult to isolate such an interest rate effect on consumption. We now study these linkages in more detail.

The Liquidity Trap

In discussing the effects of monetary policy on the economy, two extreme cases have received much attention. The first is the *liquidity trap*, a situation in which the public is prepared, at a given interest rate, to hold whatever amount of money is supplied. This implies that the *LM* curve is horizontal and that changes in the quantity of money do not shift it. In that case, monetary policy carried out through open market operations has no effect on either the interest rate or level of income. In the liquidity trap, monetary policy is powerless to affect the interest rate.

There is a liquidity trap at a zero interest rate. At a zero interest rate, the public would not want to hold any bonds, since money, which also pays zero interest, has the advantage of being usable in transactions. Accordingly, if the interest rate ever, for some reason, were zero, increases in the quantity of money could not induce anyone to shift into bonds and thereby reduce the interest rate on bonds below zero. An increase in the money supply in this case would have no effect on the interest rate or income—the economy would be in a liquidity trap where monetary policy does not work.

The possibility of a liquidity trap at low positive (rather than zero) interest rates is a notion that grew out of the theories of the great English economist John Maynard Keynes. Keynes himself did state, though, that he was not aware of there ever having been such a situation, nor are we today, 60 years later.[3]

Banks' Reluctance to Lend?

In 1991 a different possibility arose to suggest that sometimes monetary policy actions by the Fed might have only a very limited impact on the economy. In step (3) in Table

[3] J. M. Keynes, *The General Theory of Employment, Interest and Money* (New York: Macmillan, 1936), p. 207.