

to lower interest rates. Academic economists accept the same conclusion, but for different reasons. They see, in their mind's eye, a negatively sloping liquidity preference schedule. How can people be induced to hold a larger quantity of money? Only by bidding down interest rates.

Both are right, up to a point. The *initial* impact of increasing the quantity of money at a faster rate than it has been increasing is to make interest rates lower for a time than they would otherwise have been. But this is only the beginning of the process not the end. The more rapid rate of monetary growth will stimulate spending, both through the impact on investment of lower market interest rates and through the impact on other spending and thereby relative prices of higher cash balances than are desired. But one man's spending is another man's income. Rising income will raise the liquidity preference schedule and the demand for loans; it may also raise prices, which would reduce the real quantity of money. These three effects will reverse the initial downward pressure on interest rates fairly promptly, say, in something less than a year. Together they will tend, after a somewhat longer interval, say, a year or two, to return interest rates to the level they would otherwise have had. Indeed, given the tendency for the economy to overreact, they are highly likely to raise interest rates temporarily beyond that level, setting in motion a cyclical adjustment process.

A fourth effect, when and if it becomes operative, will go even farther, and definitely mean that a higher rate of monetary expansion will correspond to a higher, not lower, level of interest rates than would otherwise have prevailed. Let the higher rate of monetary growth produce rising prices, and let the public come to expect that prices will continue to rise. Borrowers will then be willing to pay and lenders will then demand higher interest rates—as Irving Fisher pointed out decades ago. This price expectation effect is slow to develop and also slow to disappear. Fisher estimated that it took several decades for a full adjustment and more recent work is consistent with his estimates.

These subsequent effects explain why every attempt to keep interest rates at a low level has forced the monetary authority to engage in successively larger and larger open market purchases. They explain why, historically, high and rising nominal interest rates have been associated with rapid growth in the quantity of money, as in Brazil or Chile or in the United States in recent years, and why low and falling interest rates have been associated with slow growth in the quantity of money, as in Switzerland now or in the United States from 1929 to 1933. As an empirical matter, low interest rates are a sign that monetary policy *has been* tight—in the sense that the quantity of money has grown slowly; high interest rates are a sign that monetary policy *has been* easy—in the sense that the quantity of money has grown rapidly. The broadest facts of experience run in precisely the opposite direction from that which the financial community and academic economists have all generally taken for granted.

Paradoxically, the monetary authority could assure low nominal rates of interest—but to do so it would have to start out in what seems like the opposite direction, by engaging in a deflationary monetary policy. Similarly, it could assure high nominal interest rates by engaging in an inflationary policy and accepting a temporary movement in interest rates in the opposite direction.

These considerations not only explain why monetary policy cannot peg interest rates: they also explain why interest rates are such a misleading indicator of whether monetary policy is “tight” or “easy.” For that, it is far better to look at the rate of change of the quantity of money.²

Employment as a Criterion of Policy

The second limitation I wish to discuss goes more against the grain of current thinking. Monetary growth, it is widely held, will tend to stimulate employment; monetary contraction, to retard employment. Why, then, cannot the monetary authority adopt a target for employment or unemployment—say, 3 percent unemployment; be tight when unemployment is less than the target; be easy when unemployment is higher than the target; and in this way peg unemployment at, say, 3 percent? The reason it cannot is precisely the same as for interest rates—the difference between the immediate and the delayed consequences of such a policy.

² This is partly an empirical not theoretical judgment. In principle, “tightness” or “ease” depends on the rate of change of the quantity of money supplied compared to the rate of change of the quantity demanded excluding effects on demand from monetary policy itself. However, empirically demand is highly stable, if we exclude the effect of monetary policy, so it is generally sufficient to look at supply alone.