

Research Department Federal Reserve Bank of San Francisco

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Real or Nominal Money Balances?

In this difficult period which combines both inflationary and recessionary influences, financial analysts tend to disagree over what the future direction of Federal Reserve policy should be. To complicate matters, they are not always in agreement about the target appropriate for the monetary authority to use to determine its present policy stance.

Prior to this decade, Fed watchers would have been less uncertain, since the central bank previously emphasized money-market conditions, such as interest rates and bank-reserve positions, in developing its policy actions. (By these standards, especially given the trend of interest rates, they would have concluded until fairly recently this year that the Fed was pursuing a very tight policy.) But in 1970 the Fed shifted its emphasis somewhat, from an overriding concern with money-market conditions to a greater concern with monetary aggregates—the most popular aggregate being M_1 , currency held by the public plus demand deposits in banks.

Real vs. nominal

Nonetheless, even with the increased emphasis on the aggregates, it is sometimes difficult to decide which aggregate should be given the most consideration. The problem arises because there are several different ways of measuring money and its effects. We could simply consider the number of dollars in circulation; these are known as **nominal balances**. Alternatively, we

could consider money in terms of the goods and services the nominal dollars will buy—that is, adjust them for the effects of inflation. Considered this way, money is called **real balances**, real for reasons painfully obvious to those on fixed incomes.

There is no necessary reason for these two notions of money to behave in a like manner. In fact, in this period of high inflation they have moved in opposite directions, compounding the task of analysis. Nominal money balances recently have been rising at more than a 6-percent annual rate, while real balances have been falling at a comparable 6-percent rate.

The controversy over this point can be summed up in the titles of two recent articles—"(**Real Balances**): The Money Stock That Really Matters," (First National City Bank) vs. "**Real Money Balances**: A Misleading Indicator of Monetary Actions" (Denis Karnosky, of the Federal Reserve Bank of St. Louis). It is not especially newsworthy that economists disagree, on this as on any other subject. In fact, the authors agree on many points. Karnosky says, "The initial effect of a change in aggregate demand stemming from the excess supply of money balances will tend to be manifested in attempts to increase output to meet the new demand. **Thus the rise in real balances will tend to be associated with a rise in output.**" (Emphasis added.) From Citibank: "The nominalists . . . are fearful, with good reason, that the

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pursuit of real balance targets will lead to ever-escalating inflation." So Karnosky agrees that increasing real balances sometimes leads to growth in real income, while the Citibank authors concede that increasing real balances occasionally is self-defeating, in the sense that its bad effect on inflation more than offsets its favorable impact on recession.

Shift in focus

The basic difference between these two approaches can be simply stated. The Citibank authors believe that the single best measure of the thrust of monetary policy is the rate of growth of real balances, because real balances are most closely related to the growth of real income, the most common measure of national well-being. Karnosky, on the other hand, believes that the best measure of policy is the rate of growth of nominal balances, since this is the number most closely related to the rate of inflation.

A problem in understanding arises here because the rate of change of money balances of any kind is not always enough information to determine the relative expansiveness

of monetary policy. If there is a great deal more money, real or nominal, in the economy than people need to purchase the goods and services they desire, telling the public that real balances are declining is a little like telling a drowning man that the water level in the lake is falling. It is the actual **level** of money balances relative to the **desired level** that tells the direction of policy. So the problem of interpreting policy hinges not upon what kind of money is increasing at which rate, but rather upon the desired (or equilibrium) level of money, be it real or nominal. If this desired level is higher than the actual level, monetary policy is restrictive; if lower, expansive.

Historical lessons

Attention recently has been focussed upon changes in nominal and real balances during the Great Depression, especially the 1929-33 period. In their classic **Monetary History of the United States**, Milton Friedman and Anna Schwartz describe the decline in nominal balances of that period: "In terms of annual averages . . . the money stock fell at a decidedly lower rate than money incomes . . . in the four years from 1929 to 1933, a total of 33 percent, or an annual rate of 10 percent." But real balances declined about 8 percent over this period, in the wake of a 25-percent

reduction in consumer prices. By either standard—but especially by the standard of nominal balances—a perverse tightening of monetary policy contributed to the severity of the business decline.

However, there are some historical occasions when we should not ignore changes in the relative desirability of money in comparison to other assets. The depression was one such occasion, and the present period may be another. During the depression, cash was a growth asset, in sharp contrast to most other assets. (Indeed, a 25-percent gain in the purchasing power of an asset in a four-year period represents good earnings at any time, especially during a depression.) Prices had already been falling since 1925, so that the 1929-33 decline did not come as a surprise. Consequently, in view of the high yield of money, its desirability increased far more rapidly than the Federal Reserve's accommodation to this shift, leading to a restrictive (and perverse) monetary policy.

Another uncharacteristic period may have developed in the 1970's, although for opposite reasons than those governing the 1930's. In normal times, with no dramatic change in prices, either real or nominal balances will tell the same story. The desired share of money in people's portfolios undergoes no

dramatic change, so that we needn't worry about the effects of such changes. But we are not living in normal times today.

The nation has undergone several brief periods of double-digit inflation during its history. The cost of holding money rises in such periods, so people tend to hold less money—just as in deflationary periods they hold more.

In past inflationary periods, desired holdings of money did not substantially change, mainly because people expected these episodes to be short. The evidence indicates that the desired balance between real goods and real money holdings will be affected only if the public expects a substantial, long-lasting shift in the yield on money. So the question of desirability of money vis-a-vis goods hinges on whether holders of money consider the current inflation to be only a short-run phenomenon, the result of temporary influences—or whether they believe it to be a long-run phenomenon, the result of a substantial change in the way the price level is determined in the United States.

Kurt Dew