INTEREST RATE FORECASTING IN AN INFLATIONARY ENVIRONMENT

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Money Managers, whether they be responsible for minimising borrowing costs or maximising yields on assets, are forced to make critical decisions with regard to interest rate movements over the term of the liability or asset. During the two decades preceding the '70s, the art of forecasting interest rate trends required limited imagination. Errors were generally small and had little impact on profit and loss statements. This comfortable condition changed dramatically in the '70s; interest rates became extremely volatile, movements were often sharp, and timing became nearly impossible to anticipate even with the aid of the most sophisticated systems of analysis. The penalty for incorrect forecasting has become so severe that an increasing number of money managers are now following the trend adopted in most other industrialised countries of going short, either through floating rate borrowings or investment in shorter dated securities.

To understand the background of this increased volatility in rates, and concomitant preference for floating financing arrangements, we need to look to the underlying cause — inflation. Interest rates are intrinsically related (though they do not always adjust fully or rapidly) to inflation. During the decade to 1968/69, for example, the consumer price index rose at an average annual rate of 2.5 per cent; in the five years to 1976/77, the average annual increase was 12.5 per cent. By contrast, interest rates on short-dated Government securities, which averaged around 4.5 per cent per annum in the earlier period, averaged around 8.5 per cent per annum in the five years to 1976/77.

It is essential that we differentiate between short-term technical adjustments in the CPI (Medibank, petrol price increases, etc.), medium term cyclical inflationary bulges (often coinciding with the three to five year business cycle), and long term inflationary movements, often referred to as secular trends.

During the past three decades, politicians and public administrators have relied heavily upon the traditional tools of monetary and fiscal policy to deflate or reflate the economy. The Government can exercise an immediate influence upon interest rates through changes in officially administered interest rates. This flexibility is seen as an essential ingredient for controlling the money supply and promoting economic stability. While policy induced changes are always present and need to be considered, their frequency and suddeness has been a feature of recent times. Thus, high inflation is associated with high variability in government induced policy on interest rates, which increases uncertainty for both borrowers and lenders, and further promotes the tendency to go short. This increases the volatility of flows of funds in the financial markets.

One of the consequences of the recent burst of inflation is that is has tended to obscure some of the longer run considerations determining the level of interest rates. Interest rates eventually adjust to provide lenders in real terms a return on their financial assets. Most market analysts concentrate on technical adjustments in inflation, or cyclical movements associated with business cycles. What is infrequently realised is that the monetary and fiscal tools employed so effectively in dealing with cyclical inflation, have little impact when coping with longer term secular trends, and quite often, are counterproductive in correcting the underlying cause.

To use the United States as an example of secular trends, wholesale prices have risen in four major cycles since 1789. Price levels have risen when there is a sustained increase in the stock of money per unit of output, and have fallen whenever there is a sustained fall in the stock of money per unit of output. Changes in the U.S. money stock were effected in the following ways:—

> Before World War I — under the old gold standard — variations in U.S. holdings of monetary gold resulted

from new discoveries, increased production inflows from abroad and outflows to other countries. After World War I, Federal Reserve policy began to supplant gold as the principal source of change in bank reserves — or high-powered money — and, ultimately, of change in the money stock. The Federal Reserve accomplished these changes by discounting the paper of member banks and by open-market purchases or sales of Treasury securities, which increased or diminished the reserves of the banking system. Over the entire period, variations in high-powered money were by far the most important source of changes in the money stock.

Before World War I, changes in the stock of high-powered money were also effected by fiat issues, Treasury obligations issued in time of war or other emergencies and later retired.

Over the entire period the money stock was affected by the changes in the reserves that the banks held in relation to their deposits. Low reserve ratios meant more loans, more deposits, and hence a larger money stock; high reserve ratios diminish the money stock or at least slow its growth.

Changes in the public's demand for currency — gold and a few Treasury bills before 1862, thereafter gold, national banknotes and "greenbacks", and after 1913 Federal Reserve notes and Treasury issues — also effected changes in the money stock. Other things being equal, a low ratio of currency to bank deposits tends to increase the money stock; a high ratio diminishes it.

The long swings in U.S. prices are adequately explained within the foregoing framework. The first long swing reflects the financing of the War of 1812, as well as outflows of specie and domestic monetary tightening that accompanied the financial panics of the late 1830s and early 1840s.

The second steep upswing of prices reflects the discovery of gold in California and the outbreak of the Civil War with the issuance of "greenbacks" by the U.S. Treasury. The decline in prices that ensued from the end of the Civil War to the mid-1890s was essentially a matter of real output growing at a faster pace than the stock of money. And the downturn in prices was accelerated with the return to gold convertibility in 1879 and by the agitation for silver and the deep recession of 1893-94. Thereafter prices tended to rise because of new gold discoveries, the introduction of a commercially viable cyanide process for extracting gold from low-grade ores and, finally, the financing of World War I.

The downturn in prices after the crash of 1929 was in large part the product of a disastrous Federal Reserve policy that allowed many banks to fail and caused the public's demand for currency to soar. The upshot was a 30% or so decline in the U.S. money stock. Since such deflationary errors are unlikely to be repeated in the advanced economies, it is difficult to prognosticate either the cause or the timing of another steep decline in prices.

One of the most obvious remedies for correcting the present high level of secular inflation is to increase productivity so as to permit output to meet demand. The investment tax credit currently in force is a positive example of one such remedy. What more frequently occurs is the use of monetary tools to control money supply growth, or reduction in the budget deficit through tax increases, both of which discourage plant and equipment investment. A long term programme aimed primarily at increasing productivity is frequently incompatible with the political election cycle, or government efforts to arrange a more equal distribution of an ever-diminishing economic pie, as the British experiment in Fabian socialism demonstrates. If short term solutions continue to be applied, the major economies are faced with the spiral of discouragement of capital investment, declining productivity, pressures to devalue, chronic problems of unemployment, volatile rates of cyclical inflation, countered either by dramatic changes in money supply growth policy, or reflationary measures to reduce the level of unemployment.

Economics continues to be a highly imprecise science. With a political dimension added, the variables become staggering in their complexity. It is within this environment that the money manager makes his interest rate forecasts. While recognising the intrinsic relationship between inflation and interest rates, the money manager should separate

short term movements and cyclical bulges related to business cycles from longer term secular trends. Depending upon the conclusions reached, strategies to borrow floating or fixed, or investing short or long, can be more prudently reached. Given the expectation for continued volatility in interest rates in the current period of high cyclical as well as secular inflation, the penalty for incorrect forecasting can be a most painful corporate experience.