If there is one enduring idea from Friedman that central bankers in China and India would be well-advised to heed, it is the 'monetarist paradox' that almost every interest rate cut leads, over time, to a higher interest rate. And tightening moves such as raising the Cash Reserve Ratio do not necessarily ensure that policy has tightened.

Vivek Moorthy

Paradoxically, the monetary authority could assure low nominal interest 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.

Milton Friedman, December 1967

Last year, on November 16, Milton Friedman, arguably the greatest economist of the century, passed away at the age of 94. The anniversary of his demise is an apt occasion to reflect on his contributions to economic theory and policy.

He was most famous for espousing two major themes: the virtues of the market, and the Quantity Theory of Money, to predict inflation and to base central bank policy upon. Yet neither of these should be considered as his most original ideas.

Regarding the first — extolling the virtues of Adam Smith’s invisible hand, and pushing for deregulation and a minimal state, Friedrich Hayek, with his pioneering *The Road to Serfdom*, was no less eloquent. Indeed, Hayek, and not Friedman, was the main intellectual influence upon Margaret Thatcher in this regard.

Regarding the second, the Quantity Theory of money, which goes back to Adam Smith’s contemporary, David Hume,
Friedman has been proved wrong. After briefly trying to implement his recommendation of a constant growth rate rule for money to control inflation, many central banks gave it up.

The then US Federal Reserve Chairman, Paul Volcker, abandoned the M{-1} growth target in August 1982. About a year later, the Governor of the Central Bank of Canada Gerard de Bouey explained to Parliament a similar switch in policy, stating “we did not abandon M{-1}; M{-1} abandoned us.”

The Federal Reserve pays no attention to money supply these days.

Despite the practical failure of the Quantity Theory, Friedman gave it pride of place among his various works and views. In his pioneering article “A Restatement of the Quantity Theory of Money” in 1956, he asserted that “there is perhaps no other empirical relation in economics that has been observed to occur so uniformly...as the relation between substantial changes over short periods in the stock of money and in prices; ..this uniformity is, I suspect, of the same order as many of the uniformities that form the basis of the physical sciences.”

In 1982, he co-authored a huge book *Monetary Trends* in the US and the UK, based on the Quantity Theory framework. As late as 2002, in the flagship *Journal of Economic Perspectives*, he debated with economist Brad de Long about the stability of the demand for M2 and M3, and wrote another article in the same journal in 2005 on links between the stock market, money supply and GDP.

As Robert Solow remarked in a famous 1966 debate on wage-price guideposts, “everything reminds Milton of the money supply. Well, everything reminds me of sex, except that I keep it out of the paper.” Finally, though, when Chairman Greenspan’s term ended, Friedman, assessing his use of discretionary policies, instead of “strict rules to control the amount of money created”, conceded that “his performance has persuaded me that he is right — in his own case” (“He has set a standard,” January 31, 2006, *Wall Street Journal*).

**Major contributions**

Friedman’s outstanding contributions, starting with statistical sampling theory in the 1930s and 1940s, are many. He wrote notable essays on “The Methodology of Positive Economics” and “The Case for Flexible Exchange Rates”; his 1957 “Theory of the Consumption Function” is generally acknowledged to be his best scientific work.
Friedman’s other major works were the monumental *A Monetary History of the United States* (1867-1960) with Anna Schwartz, tracing the Great Depression to errors in Federal Reserve policy; his analysis of rules versus discretion in monetary policy, explaining the macro-economic welfare benefits of policy based on rules; and, finally, his natural rate of unemployment hypothesis in his December 1967 Presidential Address to the American Economic Association.

The associated prediction, that there is no long-run trade-off between unemployment and inflation, was both timely and timeless.

The power and policy significance of the natural rate hypothesis notwithstanding, last year’s Nobel Laureate, Edmund Phelps, independently came up with the natural rate concept around the same time. Phelps’ analysis also predicted that both inflation and unemployment would rise in the 1970s, which it did. The no long-run trade-off proposition is not, however, entirely Friedman’s unique contribution.

**Monetarist paradox**

What idea can then be described as his most original, useful and enduring contribution to general macroeconomic theory and policy? In my opinion, drawing on the citation from above, it is what can be labelled, in his honour, as the "monetarist paradox" — that is, an easy money policy leads to high interest rates, and vice-versa.

Friedman’s empirical genius and policy bent led him to combine the natural rate of unemployment hypothesis and the Phillips curve for the labour market with the Fisher equation for financial markets.

The equation propounded by Irving Fisher states that the nominal rate of interest equals, in the long run, the real rate of interest (which cannot be controlled by the central bank) plus expected inflation.

Indeed, the Fisher equation is perhaps the most robust empirical relation in macroeconomics — even at single-digit inflation rates, across countries, market interest rates are closely linked to inflation. However, at these low inflation rates, the link between money growth and inflation is very tenuous or non-existent.

The monetarist paradox can be deduced as a corollary to the natural rate hypothesis and the Fisher equation combined. It is
deeply embedded in Friedman’s complete analytical framework and policy prescriptions.

However, it was not emphatically, or independently, stressed much by him or his followers. Indeed, the paradox can hold without the Quantity Theory holding. More generally, it can and perhaps should be described as a central banker’s paradox “An easy money (or credit) policy leads to high interest rates”.

Powerful central banks such as the Swiss National Bank and the German Bundesbank, (now the ECB) are often criticised for raising interest rates at the slightest whiff of inflation. Yet they end up with the lowest (policy) rates in the world, vindicating the enormous practical relevance of the paradox. The constructed indices of central bank independence clearly show that countries with stronger central banks, which follow tighter policies, tend to have lower interest rates.

Enduring lesson

It is unfortunate how so few Finance Ministers and other policy makers understand, let alone accept, the monetarist paradox. If there is one enduring idea from Friedman that central bankers in emerging economies such as China and India would be well advised to heed, it is that almost every interest rate cut leads, over time, to a higher interest rate.

Further, tightening moves such as raising the Cash Reserve Ratio, as India and China have been doing recently, do not necessarily ensure that policy has tightened.

By contrast, if one were to try to encapsulate Keynes legacy, leading to his deficit spending recommendations, it can be summarised in the “paradox of thrift” in his 1936 General Theory of Employment, Interest and Money. The paradox is that people may try to save more, but they cannot do so. An act of savings leads to a recession that reduces income, since savings is governed by investment through the multiplier via a changing level of income.

While this is good Depression economics and sometimes does apply in the short run, as when consumer confidence suddenly drops, it is hardly a general theory. The worldwide ‘savings glut’ in recent years that the Fed Chairman, Mr Ben Bernanke, referred to did not lead to a recession. Instead, the huge amount of savings directly invested in the bond market has contributed to keeping long rates surprisingly low, despite the Fed raising the funds rate from 2001 to 2005, as per the classical approach.
Keynes’ multiplier analysis and the paradox of thrift are still routinely taught through macroeconomics textbooks the world over, despite their irrelevance.

There are about 19,000 references to the paradox of thrift in Google, but almost none to the ‘monetarist paradox’. The term itself I coined in 2000 in a study on bond financing and debt stability for the RBI. In correspondence in December 2005 about a textbook I am writing, highlighting the monetarist paradox, but without the Quantity Theory, Friedman replied to me stating that he had not “seen the phrase”.

Reading Friedman tends to be a revelation. And on re-reading, there is often something new, in style or substance, that one had failed to pick up earlier. The literary critic A.D.P Briggs said about reading Russia’s greatest poet “One does not mature out of Pushkin; one matures into him.” Ditto for (much of) Milton Friedman, in memoriam.

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