

Economists Do a Lousy Job Teaching Students about Inflation

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Economists do a lousy job teaching students about inflation in large part because economists don't have good theories of inflation. Theoretically, economists have never satisfactorily integrated the financial sector with the real sector in our general macro model. Money, and the nominal sector it represents, is a tack-on. This means that inflation and the price level are also tack-ons.

MISPLACED CONCRETENESS

There are a number of problems with how we teach inflation. One is misplaced concreteness — we present inflation as a precise concept, and create models in which a 1 or 2 percent change in inflation is assumed to affect people's behavior. But a 1 or 2 percent change in the aggregate price level is below individuals' perception threshold. If they were not told by economists what the level of inflation was, they would not be able to distinguish between the various levels of inflation plus or minus 3 or 4 per cent. People are not interested in a general price level index; they are interested in the prices of the goods they consume and sell. A 2 percent inflation caused by a 10 percent rise in the price of rice in a developing country is something quite different than a 2 percent inflation caused by a more general rise in prices.

In advanced economies, where the composition of goods is constantly expanding due to technological innovation, a general price index is even more suspect due to the inherent indexing issues that accompany innovation and technological change. One cannot unambiguously define a price index for a constantly changing, and hence incomparable, market basket of goods. Depending on how one chooses to define inflation, one can come up with significantly different "correct" measures of inflation. The bottom line: There is no one correct inflation rate in the economy, and we should be teaching students that.

DISTINGUISHING ASSET INFLATION FROM GOODS INFLATION

A second problem with the way we teach inflation is that we do not distinguish asset price inflation from goods inflation. Instead, the texts seem to suggest that goods inflation is all there is. But what if the prices of assets, such as stock, diamonds, gold, old master paintings, or housing, rise? Is that inflation? Whether it is or isn't depends on how we



define inflation, and there are many possible definitions. (This problem has been especially relevant recently since Fed policy has been directed at pushing asset prices up, which can be seen as a type of inflation. They just don't define it as such.)

While economists do not include assets in their discussion of inflation, suddenly in their discussion of deflation, assets enter into the picture. Students are told: Deflation is bad — something to be avoided. But a fall in the price level of goods is not necessarily bad. Indeed Friedman (1969) once argued that the optimal goods inflation rate was a 2 percent deflation.

The problems associated with deflation are much more appropriately associated with falling asset prices, not falling goods prices. If one has a financial system built on loans collateralized by assets specified in nominal terms, a fall in asset prices — a deflation — can undermine the economy. But that is something quite different than a fall in goods prices. Since most economists' discussions of deflation do not distinguish the two, they do not capture this difference.

THE CHANGING DEFINITION OF INFLATION

Inflation was not always defined as an increase in the price level. It used to be defined as an increase in the money supply. Then, in the discussion of the definition, it was noted that such increases were often accompanied by increases in prices of both assets and goods. The increase in the money supply was the inflation; the rise in the price level was an associated effect of inflation.

That definitional focus of inflation on the money supply was abandoned as economists started to develop better measures of the price level. As they explored the problems with measuring the price level, they developed conventions as to what goods would be included in "inflation." Eventually, inflation became thought of as the change in the price level of produced goods. Economists created formal measures of output (produced goods) and price indices, developing well-specified concepts such as real GDP, GDP Deflator, CPI, core CPI, and CPE, among others. People's conceptions of inflation followed those formal measures, and earlier monetary definitions of inflation faded. That led to the way most people think of inflation today — as an increase in the price level of goods as measured by a produced goods inflation index.

What is left out of these "produced goods price" definitions of inflation is assets. Thus, as inflation has become associated with changes in the price level of produced goods, the price of assets slowly moved out of definition of inflation, and what might be called asset inflation fell from economist's radar screen.

The problem with that definition of inflation as only relating to produced goods is an arbitrary convention — a convention that hides the inescapable definitional ambiguity surrounding inflation. It is that definitional ambiguity that makes it difficult to discuss the recent history of inflation, which has experienced large increases in the money supply, but only small increases in the goods prices. Is this an inflationary period? It would definitely be an inflationary period in the earlier money supply definition of inflation. In that earlier definition, the increases in the money supply would be seen as the likely cause of an asset inflation.

DISTINGUISHING REAL AND NOMINAL WEALTH

To my knowledge, no principles textbook, other than mine, introduces the concept of asset inflation and distinguishes between real wealth and nominal wealth. Possible reasons why are theoretical developments in asset pricing theory — specifically the development of the

efficient market hypothesis, which holds that the prices of assets reflect their real value. This assumes away the possibility of asset inflation.

This is only an assumption, and with the increasing challenges to the efficient market hypothesis, it is an assumption that is harder and harder to swallow. In considering alternative assumptions, one can look back to earlier literature. A theoretical challenge to these conventions came from Alchian and Klein (1973) who argued that the appropriate concept to measure inflation in reference to should include asset prices as well as goods prices. Specifically, they argued that measures of inflation should relate to the current cost of expected lifetime consumption, not just to current consumption. To capture the current cost of expected lifetime consumption, the measure of inflation relevant for a person would have to include asset prices as well as good prices. In fact, it would give a much greater relative weight to asset prices than to current goods prices.

Pollack (1989) developed rough measures of such an index in which asset weights in the index were as much as 97 percent of the relevant measure. This work has not been followed up, and today inflation is almost only thought of as changes in the price of produced goods only. The concept of asset inflation to a large degree disappeared. (Interestingly, however, deflation is generally discussed in terms of asset prices. Were that not the case, there would be almost no discussion of deflation since an index of goods prices almost never falls significantly, and would not cause problems even if it did.) Thus, the current reality is that we do not have a meaningful measure of, or a solid understanding of, asset inflation.

“REAL ASSETS” AND “REAL WEALTH”

In order to have a meaningful concept of asset inflation, one must have a concept of “real assets” which means that one cannot hold the efficient market hypothesis. On an individual asset level, distinguishing whether a change in an asset price is an intertemporal relative change (as the efficient market hypothesis holds) or a bubble is close to impossible. But on the aggregate level of all assets, one would expect to see fewer intertemporal relative price changes, it may be easier. Thus, in my textbook explanations of asset inflation (Colander, 2013) I do not focus on the price of any one asset, but rather on a concept that I call “real wealth” which is the stock equivalent to the flow concept of real output. I contrast real wealth with nominal wealth as a parallel to the contrast between real output and nominal output. Real wealth is the productive capacity of the economic system; nominal wealth is the money measure of that productive capacity, and the change of these measures is asset inflation. If nominal wealth increases but real wealth does not, society is not richer; it just experiences asset inflation. Just as real output is differentiated from nominal output by goods inflation, so too is real wealth differentiated from nominal wealth by asset inflation.

Since in steady state equilibrium, real wealth will grow at the same rate as real GDP, assuming no major structural changes, we can get an idea of the degree of asset inflation relative to goods inflation by comparing nominal wealth with nominal GDP. If nominal wealth grows more than nominal GDP, there is asset inflation. If it grows less there is asset deflation, where the reference point is the goods price level. As I show in Colander (2013), the prices of assets have risen significantly more than the prices of goods, suggesting that on average asset inflation has exceeded goods inflation since the mid-1990s. The level of asset inflation has been uneven, and there have been intermittent periods of asset deflation that has partially offset the net difference.



CONCLUSION

So what does all this mean for textbook discussions of inflation? It means that these discussions are significantly misleading. They make it seem as if the conceptual problems of measuring inflation can be technically solved, when, in fact, any measure of inflation is highly imperfect, and not something that drives individual behavior. Small differences in the general inflation rate are unlikely to change individuals' actions based on a measure that has little to no relevance to them. What that means is that there is some wiggle room to play with inflation, and current policy is attempting to use that wiggle room to squeeze out a bit more real growth out of the economy. If textbooks described existing policy in such terms, it would be easier for students to understand what the Fed is trying to do with policy. It would also be easier for students to understand the potential problems with current Fed policy.

The problem with squeezing out a bit more real growth by increasing the money supply without causing goods price inflation is that such an increase can cause asset inflation. The Fed policy may be increasing nominal wealth but not increasing real wealth. It is creating real growth on the illusion of wealth, not on a real foundation of wealth. If that is what happening, there will be a later cost to pay for the current growth as society. As Sigmund Freud said, "Illusions commend themselves to us because they save us pain and allow us to enjoy pleasure instead. We must therefore accept it without complaint when they sometimes collide with a bit of reality against which they are dashed to pieces." Since economists don't even discuss asset price inflation, they miss this aspect of the policy, and encourage society to live an illusion. That's bad pedagogy, and bad policy.

References

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