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The non-linearity of inflation psychology and the present danger of stagflation

Ever since the 2008-09 global financial crisis there has been a lively debate between those anticipating a prolonged deflation and those predicting a transition to inflation. In certain respects, both sides of the debate have been correct, if sometimes confusing monetary, credit and price inflation. Recent data indicate, however, that the terms of debate are now shifting decisively in favor of those expecting price inflation or, more precisely, stagflation. Not only is US core CPI trending higher; the dollar uptrend has given way to a downtrend, implying the end of low headline CPI. The result could be CPI above 4% by 2017. The psychological effect of 4%+ CPI, combined with timid action by the Federal Reserve on rates, could represent a 'tipping-point' in public inflation expectations. Once this occurs, there is a risk that economic behavior changes in unpredictable ways that can damage real potential economic growth. Investors should prepare accordingly.

The concept of a 'tipping-point' can apply to a wide range of phenomena. One classic example is that of a crowded theatre slowly filling with smoke. At first, perhaps only one person notices the smoke and, comforted by the fact that others remain calm, remains seated, if slightly on edge. But then a handful of others also notice and become concerned. Finally, at some point, these folks stop watching the show and instead start watching each other. As the growing concern

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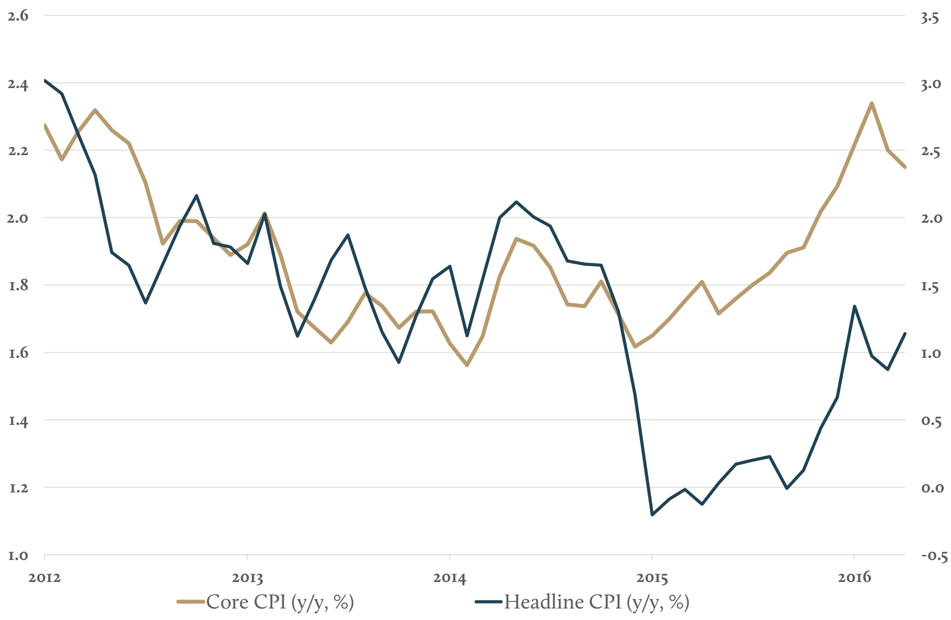
across the theatre becomes evident, someone finally makes for the exit, triggering a rush by others. Yet many of those rushing out might not have noticed any smoke. The critical point is reached not because more people notice the smoke; rather, more notice changes in others' behavior and thus change their own.

The danger of inflation for economies and financial markets can also be understood in this way. As prices begin to creep higher, a few investors, businesses and households begin to notice. Rather than just going about their business as usual, they begin to watch the behavior of others more closely. Finally, a handful of economic agents suddenly change their behavior in a significant and highly visible way, triggering similar responses by others, who might not even have noticed that prices were rising.

What sorts of behavioral changes might those be? Perhaps investors begin to favor assets which protect against inflation. Perhaps businesses take out loans in order to finance stockpiles of inventories, in anticipation of higher prices. Perhaps consumers begin to do the same with durable household goods. By these very actions, investors, businesses and consumers all begin to reinforce a vicious inflationary circle, limiting the available market supply of broad ranges of goods and thereby driving up prices. Regardless, once the inflation tipping-point is reached, the rush to the exit–to protect against rising prices in some way–is damaging to economic efficiency, especially within the highly specialized global economy of today, implying the onset of stagflation. The consequences for potential economic growth and real (after inflation) corporate profits are strongly negative, with clear implications for financial assets.

Cast your eyes around the globe and it is clear that, in a growing number of countries, tipping points have already been reached. Indeed, stagflationary economic conditions already obtain across much of the developing world. The inflationary aspect in developing economies relates to local currency weakness. But with the dollar no longer strengthening and US core inflation having already re-established a rising trend in 2015, the stagflation is migrating from abroad to whence it in fact originated: The highly expansionary monetary policy of the US Federal Reserve, provider of much of the world's de facto monetary base, namely US dollar reserve balances. Extrapolating these trend reversals could well carry US headline CPI to above 4% y/y by 2017.

US core CPI was already trending higher prior to the sharp reversal in headline CPI, a result of the reversal in the dollar and commodity prices



Source: US Federal Reserve

The reality of rising consumer price inflation in the US and around much of the world shifts the terms of debate between those expecting a prolonged debt deflation and those anticipating a transition to stagflation. To understand why, let's briefly explore the background of the inflation vs deflation debate and then return to recent developments.

First, it's important to define inflation. In classical economics and into the early 20th century, inflation and deflation were defined as changes in central bank base money. This need not have any direct relationship with the general price level. It is the creation of commercial bank credit that expands the broad money in circulation, hence monetary inflation or deflation can also be caused by commercial banks. In fact, most money today is created by commercial rather than central banks. The term inflation, however, is now mostly used to describe changes in the price level rather than money and/or credit. Hence, we need to understand clearly the difference between monetary inflation/deflation, credit (or asset) inflation/deflation and, finally, commodity or consumer price inflation/deflation.

Credit (or asset) inflation/deflation is difficult to define precisely because there are so many different forms of credit, ranging from fractionally-reserved bank time deposits–a form of broad money–to loans, leases or other forms of secured or unsecured debt. This is made all the more complicated because banks don't normally mark their assets to market and the so-called 'shadow banking system' largely relies on derivatives of various kinds for financing. Indeed, near the end of the financial crisis, regulators gave banks additional flexibility to mark assets to 'make-believe' rather than actual market prices. Whereas the price of a dollar is a dollar, that of a loan, a bond or other risky asset is uncertain and fluctuates with investor confidence that the issuer of the asset will be able to make the contracted interest and principal payments.[1]

One way to approximate growth in credit (or asset) inflation/deflation, other than to follow broad money aggregates, is simply to look at the growth in bank lending, marked as is, be it to market or make-believe. One reason why we can simplify in this way is because policy-makers in major economies have made it crystal-clear that, to the extent that financial institutions are at risk of insolvency, they will be bailed out in some fashion, such that the market price of distressed assets will never be properly marked-to-market but, rather, suddenly or gradually monetized over time. As such, it is not a great leap to assume that the growth (or shrinkage) in bank lending in general is reasonably indicative of whether credit inflation (or deflation) is taking place.[2]

Finally, there is commodity or consumer price inflation/deflation, normally measured by official price indices. But such indices are at best approximations and, at worst, are designed in ways which understate real world price inflation

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[1] *There are even times when it is difficult to value on a bank deposit. If a bank is at risk of failure, then deposits are at risk. Even insured deposits can be difficult to value. How long until the insurance is paid out? Will interest be paid in the interim? At what rate? If an entire banking system fails, will the government really be able cover all insured deposits? If not, will the government devalue the currency? If so, by how much? Back in Q4 2008, investors were beginning to ask these sorts of questions.*

[2] *Those familiar with the details of the credit bubble and bust of recent years are well aware that much of the bubble was not visible in traditional bank lending or balance sheet statistics but, rather, was growing within the so-called 'shadow banking system'. Nevertheless, I believe that banking lending data are at least indicative of the direction of credit growth, if not the actual rate. More detailed analyses than that presented here are certainly possible but are unnecessary to the basic point.*

through so-called hedonic adjustments, substitution effects or by under-weighting or excluding entirely volatile components such as food and energy.[3]

Turning now to the debate, the arguments of the deflationists have generally focused on the credit (or asset) definition of deflation. As long as credit is contracting, so the thinking goes, it matters not whether the central bank is growing the narrow money supply. Banks will simply sit on so-called 'excess' reserves indefinitely as the credit contraction runs its course. Therefore, central bank money creation merely stabilizes the financial system; it does not transmit into fresh credit creation or real economic activity and, therefore, does not necessarily contribute directly to commodity or consumer price inflation down the road.

Certainly this seems an accurate description of what happened in 2008 and 2009. Credit markets collapsed; banks stopped lending; the Federal Reserve and other central banks created huge amounts of narrow money; yet while financial systems stabilized in the end, this narrow money did not flow into fresh credit creation, economic activity or consumer prices.

The inflationists, it would seem, were wrong, at least for a while. But to be fair, many of the inflationists focused primarily on monetary inflation, which has indeed been substantial, as pointed out above. In some cases the inflationists did predict a rapid or even simultaneous transmission from money creation into credit creation and along to commodity and consumer price inflation. Events since 2008-09 have shown this view to be false. But economic history generally as well as contemporary developments demonstrate that there is not a stable relationship over time between monetary inflation, credit inflation and commodity or consumer price inflation.

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[3] *Hedonic adjustments are intended to incorporate the impact of productivity improvements in goods. For example, if the price of a computer is unchanged over the year but the newest version is twice as fast, a hedonic adjustment would calculate that the price of the computer had in fact declined by 50%. While this sounds nice in theory, in practice it can be messy, misleading and hugely biased. For example, just because a computer is twice as powerful, does that really mean that it is twice as useful? Who is going to make that judgement? Is a car that is twice as fast twice as useful? Also, hedonic adjustments are never made in reverse. Think about rail fares for example. If rail fares are unchanged over the year but overcrowding, delays and cancellations increase by 50%, do hedonics measure this negative productivity as an increase in prices? No, they don't. In all applications of hedonic adjustments it is always assumed that there can be only positive, not negative changes in productivity, hence the obvious and potentially large bias.*

Mainstream, neo-Keynesian economics tends to place little value on monetary analysis for exactly this reason, that the link between money growth and consumer price inflation is impossible to model with reasonable accuracy and, as such, cannot usefully inform central bank monetary policy decision-making, focused as it supposedly is on maintaining a stable level of consumer prices.[4] But just because something is difficult to model does not mean that it does not exist. After all, it is impossible to model precisely the 'tipping point' behavior of people in a crowded theatre as smoke accumulates or, alternatively, that of investors, businesses and households amidst growing evidence of rising prices. But would anyone deny that these phenomena are real and that they can pose large if unpredictable risks?

Thinking along these lines, I believe there is now ample evidence that, over the course of 2015-16, there was a transition from consumer price disinflation to inflation coinciding with the peak in dollar currency strength. As such, there is a growing risk of reaching a tipping point beyond which rising inflation expectations will fundamentally alter economic calculation and action from the largest global businesses down to the smallest households, with stagflationary economic consequences.

The evidence is thus that the entire monetary transmission mechanism, from narrow to broad money; from broad money to credit and asset growth; from credit and asset growth to commodity and consumer price inflation; is indeed functioning in a narrow sense, even if it has failed to restore sustainable economic growth. It has just taken much longer to play out than the inflationists had generally expected, at least in the US.

In this context, it is perhaps curious why the Fed remains so timid when it comes to raising interest rates. The official current Fed position is twofold: First, inflation–at least based on how they prefer to measure it–is still quite low; second, the economy appears to be cooling. Thus the Fed will most probably only raise rates slowly, if at all, over the coming months.

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[4] *While most central banks claim to pursue a policy of maintaining consumer price stability, there is substantial evidence that, in fact, this is not the key policy objective. The most obvious piece of evidence is the nearly universal poor track record of most central banks in meeting their price stability mandates. For a more thorough discussion of central banks' policy objectives, please see the Amphora Report,* A Century of Money Mischief, *Vol 1/14, December 2010.*

In my view, the real reason why the Fed continues to stoke the inflationary fire with near-zero rates has more to do with the still-perilous state of the US financial system and the massive debt overhang which, naturally, needs to be serviced. It is much easier to service a debt which is depreciating in real terms, even if it is growing in nominal terms. The Fed may claim to be aiming for just slightly higher inflation but it is possible that they are, in fact, seeking a significantly higher rate to help service the huge accumulated public and private debt burden. Only when this task is more or less complete, the Fed may raise rates sharply and perhaps even publicly admit that they made a (convenient, wink wink) 'mistake'.

With informed observers of all kinds–investors, businesses and consumers–now beginning to smell the inflationary smoke of rising consumer price inflation, the Fed's continuing, unwavering commitment to create inflation could at any moment lead to dramatic changes in behavior. Indeed, once the tipping point is reached, the Fed will have lost the ability to control inflation without raising interest rates to punishing levels that will cause a major recession and possibly a financial crisis greater than that which struck in 2008. Why?

Consider how rational economic agents are likely to respond to the onset of clear and present inflation. Prices are already rising and the Fed has not shown a willingness to reconsider its expansionary monetary policy. Investors, therefore, will keep right on chasing returns in asset markets, seeking to remain ahead of the inflation curve. Businesses will stockpile inventories of real assets in an attempt to do the same. Finally, households may begin to stockpile consumer goods. What will be the combined result of these activities? Well, by driving up demand for all manner of assets, and wholesale and consumer goods, they are going to exponentially reinforce the price inflation already underway. But as this sort of demand is not for consumption, but rather for stockpiling (or hoarding), it is not positive for growth but rather quite the opposite; it is, rather, economically inefficient and stagflationary. Real final consumption is not going to increase. Indeed, as prices rise, it is going to fall. (Amidst weak economic growth real wages are also likely to fall.)

The Fed, already deep into a dilemma largely of its own making, is about to find itself facing an even more unpalatable choice before long: Accommodate the surge in demand for real goods with a continuing easy money policy or, alternatively, slam on the brakes sufficiently to force an end to the incipient behavioral changes behind the growing stagflation, thereby running the risk of causing another financial crisis perhaps more severe than that of 2008-09.

So what is the Fed going to do? Take responsibility? Well that would be rather out of character given that the Fed so far has steadfastly denied any blame whatsoever for the massive credit bubble that it facilitated with a prolonged period of excessively easy monetary conditions in 2003-07. More likely, the Fed will simply hope that somehow inflation will rise moderately to a level which helps to reduce the real debt burden on the economy and then normalize policy. But if an inflation tipping point is soon reached and consumer price inflation ratchets sharply higher, no doubt the Fed will deny that such inflation is in any way a monetary phenomenon, notwithstanding the analysis above and Milton Friedman's famous dictum to the contrary.

The Fed's denials will by no means stop there. They will also deny that this inflation is harmful, using a range of arguments such as "Price increases are indicative of firming economic activity," or "Recent spikes in volatile food and energy prices are isolated to those markets and not indicative of rising core inflationary pressures." No doubt the Fed will take comfort that real wages are likely to remain stagnant or even decline amidst weak economic growth. But for people who work for a living, the combination of rising food and energy prices on the one hand and stable or declining real wages on the other will not be cause for comfort, rather the opposite.

It is easily forgotten that the global economy grew extremely rapidly in 2006 and 2007, thus entering 2008 on the verge of overheating. It is easy to attribute the sharp slowdown in economic activity in 2008 and early 2009 to the US-centric global credit crisis but history demonstrates that sharply rising commodity prices–a classic indicator of economic overheating–have preceded all major modern recessions, including those of 1973-74, 1980-82, 1991-93 and of course 2008-09. It may thus be too early for to expect a full–bore 'stagflation' in the US; rather, a greater degree of dollar weakness may first be required.

Given recent developments, this should give investors cause for concern. As evidence piles up that one major global economy after another is slowing down, the prospect of a global recession arises. Indeed, the US equity market has long appeared an outlier in a global trend toward lower equity market valuations. Is the US equity market perhaps the last stagflation shoe to eventually drop?

Sadly, defensive investors have few options. Fleeing into bonds, when some 1/3 of the developed world bond market offers negative yields, is hardly an attractive option for preserving wealth in a rising inflation environment. The fact is, in a world of negative rates, rising price inflation and possible fiat currency devaluations or bank bail-ins, gold provides an alternative, superior store of value. While many investors consider gold and silver ideal in this regard, other commodity prices may now have bottomed and could provide additional diversification benefits. The problem with most commodities, however, is the storage costs and/or the negative carry associated with positively-sloped (contango) commodity price curves, as generally observed at present. Gold, by contrast, has storage costs that, even for highly secure storage, are close to zero.

Thinking farther ahead, I remain confident that, in the event of a general global economic slowdown, policymakers in heavily-indebted developed economies will continue to follow generally inflationary policies in order to support growth, notwithstanding the evidence, both historical and contemporary, that such policies are at best ineffective and, at worst, counterproductive. Indeed, I lean towards the latter view. Yes, a correction in equity markets may be coming in time but if sufficiently large, so is another round of fresh stimulus. Just where it is going to go, and how long it will take to get there, is anyone's guess. But we know from where such 'money' is ultimately being covertly taken: The earnings and savings of working people the world over. While it is the responsibility of investors to grow wealth when conditions are favorable–and at least protect it when not–we should all remember that inflation is not merely a monetary phenomenon but, much more importantly, an immoral one