



The Costly Uncomfortable Reality About the Wrong Definition of Comfortable

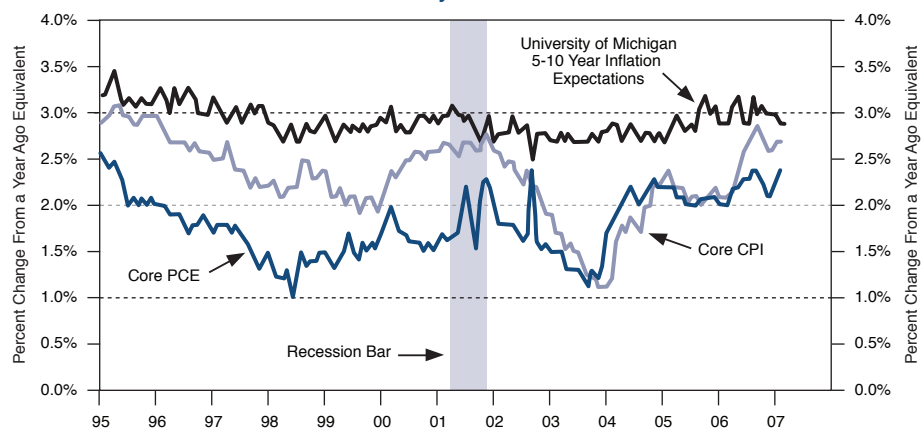
Ben Bernanke became a Fed Governor in August 2002, and only three months later, on November 21, 2002, delivered a speech for the ages, *Deflation: Making sure "it" doesn't happen here*.¹ While the speech was a *tour de force* of Ben's intellectual rigor, it was much, much more: he declared that the Fed would, if necessary, use all available tools to prevent or reverse deflation. The speech is often referred to as Mr. Bernanke's "helicopter speech," unfairly in my view.

Yes, he did say that "a money-financed tax cut" is essentially equivalent to Milton Friedman's famous "helicopter

drop of money." But he did not at all advocate such a policy; he just put it on the table in the event that efforts to prevent deflation failed, and deflation persisted, despite full employment of non-traditional monetary policy tools of reflation. It was not Plan A or B, but rather Plan X, Y or Z.

Plan A was simply to take the Fed funds rate to a super low level and have the Fed commit to keeping it there for a long time. Which was precisely what the Fed did in mid-2003, cutting Fed funds to 1% and promising to keep it there for a "considerable period,"

1%-3% Shoes Fit Much More Comfortably in the Real Economy Than 1%-2% Shoes



Source: Bureau of Labor Statistics, Bureau of Economic Analysis, University of Michigan

Chart 1

which turned out to be a year. And it worked! The fat tail of deflation risk was pounded flat.

Enter Ric

Fredrick Mishkin became a Fed Governor in August 2006, and seven months later, March 23, 2007, delivered another speech for the ages, *Inflation Dynamics*. Given that Ben gave his jewel after only three months on the job, Ric is at risk for some good natured ribbing from his friend Ben: What took you so long?

So what was the powerful nugget in Mishkin's speech? **Solidly-anchored inflation expectations are not an unalloyed blessing.** In his own words (my emphasis):

"Although solidly anchored inflation expectations are indeed highly desirable, they could pose a bit of a problem for monetary policy if they were at a level somewhat above or below the rate preferred by policy-makers. Under such circumstances, the central bank would likely be interested in shifting the public's expectations in a more favorable direction. Whether such adjustment would be easy or difficult is, unfortunately, quite uncertain

*because we do not understand the expectations-formation process very well. In some early models that used the rational expectations assumption, changing inflation expectations was relatively easy and thus implied sacrifice ratios that were extremely low, suggesting that the monetary authorities could shift inflation at little cost. However, **the historical record suggests that permanently lowering inflation expectations may require keeping monetary policy tight for a substantial period, resulting in considerable output and employment losses for a time.***

I think these considerations leave us with fairly wide bounds on what the costs might be of permanently shifting long-run inflation expectations that are already anchored. On the one hand, the historical record gives us little reason to think the costs would be as minimal as the simplest models with rational expectations might suggest. On the other hand, overly pessimistic estimates have proved to be wrong in the past."

So, what's so earth shattering there, you ask? It's the first leg of a multi-step

journey to finding the answer to a crucial question facing the Fed today: Is the Fed's *de facto* inflation target range, known as the "comfort zone," of 1-2% for the core PCE deflator too low?

My Own View

I've long argued that it is, because a too-low inflation target ironically introduces an asymmetric quality to the Fed's reaction function, compelling aggressive easing when the lower end of the target range is tested, as an insurance policy against deflation, but only measured tightening when the top of the range is tested. Such an asymmetric reaction function injects moral hazard into the financial system, commonly referred to as the Greenspan Put and more recently, the Bernanke Put.

In February 2006, I had the privilege of delivering an expansive speech on these exigencies before the Money Marketeers Club of New York University.² My essential argument was that a higher "comfort zone" for inflation – say 1½% to 3% – would ironically enhance prospects for secular price stability, because it would:

- Permit more cyclical variation in inflation, tempering excessively

skinny risk premiums borne of hubric presumptions about the Fed's ability to fine-tune the business cycle, the stuff of bubbles, while also;

- Providing a sufficient cushion of inflation (what former Fed Chairman Greenspan dubbed a "firebreak") so that the strike price on the Greenspan/Bernanke Put could be much further out of the money.

Back to Mishkin

Governor Mishkin's thesis dovetails nicely with mine, though he comes at it from a different angle. What is more important: well-anchored inflation expectations or the precise level at which they are well-anchored?

His somewhat ironic conclusion is that the more firmly anchored are inflation expectations at a particular level, the greater is the cost of the central bank trying to achieve an inflation target below that level, as well anchored inflation expectations serve as a centre of gravity for reversion to the mean in actual inflation following various shocks (both inflationary and deflationary).

Let Governor Mishkin's own words speak for themselves, which speak directly to the analytical discomfort

associated with the Fed's current 1-2% comfort zone:

“Taken together, the data suggest to me that long-run inflation expectations are currently around 2 percent. That said, I think it should be clear that the evidence points to a range of estimates; moreover, this range is itself uncertain because of the assumptions needed to tease point estimates from the available data. So, although I think that 2 percent is a reasonable estimate of current long-run expectations, I don't want to overstate the precision of this figure. We still face some uncertainty in this regard, and policymakers must be cautious about placing too much confidence in any one estimate.

If long-run expectations are in fact about 2 percent, where is actual inflation likely to be headed in the next year or two? While recognising how embarrassingly wrong such prognostications often turn out to be, I think that we can be reasonably optimistic that core PCE inflation will gradually drift down from its latest twelve-month reading of 2¼ percent. This process may take a while in light of the recent rebound

in prices for gasoline and other petroleum products. These price increases have boosted the cost of producing many non-energy goods and services, and as firms gradually pass on these higher costs to their customers, monthly readings on the change in core prices are likely to be higher than they otherwise would be. Once this process is completed, however, we might expect consumer price inflation to move into better alignment with long-run expectations and thus settle in around 2 percent. Of course, our understanding of the empirical links between our measures of expected inflation and actual inflation is sufficiently poor that things could well go awry with this forecast. Moreover, many things could happen in the coming months to alter the outlook, as the recent fluctuations in energy markets and swings in GDP growth illustrate.

Looking to the medium term, I am less optimistic about the prospects for core PCE inflation to move much below 2 percent in the absence of a determined effort by monetary policy. For the most part, this assessment – which I should stress is subject to considerable uncertainty – flows

from my view that long-term expectations appear to be well anchored at a level not very far below the current rate of inflation. If so, a substantial further decline in inflation would require a shift in expectations, and such a shift could be difficult and time consuming to bring about."

Indeed. And the key reason is the flattening of the cyclical Phillips Curve, about which many have written and empirically documented, which was a major focus of discussion at the Fed's Jackson Hole confab last August.³ That is why Mr. Mishkin is less optimistic about inflation dropping below 2% than he is about it dropping from 2¼% to 2%. Again, in his own words:

"In traditional Phillips-curve equations, inflation depends on past values of inflation, an unemployment gap (the difference between the unemployment rate and an estimate of its natural rate), and variables such as the relative price of energy and import prices. When researchers estimate these equations, they typically find that the coefficient on the unemployment gap has declined (in absolute value) since the 1980s, often by a marked amount.

In other words, the evidence suggests that the Phillips curve has flattened.

The finding that inflation is less responsive to the unemployment gap, if taken at face value, suggests that fluctuations in resource utilisation will have smaller implications for inflation than used to be the case. From the point of view of policymakers, this development is a two-edged sword: On the plus side, it implies that an overheating economy will tend to generate a smaller increase in inflation.

On the negative side, however, a flatter Phillips curve also implies that a given increase in inflation will be more costly to wring out of the system. We can quantify this latter consideration using the so-called sacrifice ratio – the number of years that unemployment has to be 1.0 percentage point greater than its natural rate to reduce the inflation rate 1.0 percentage point. Averaging estimates obtained from a comprehensive battery of equation specifications suggests that the sacrifice ratio may be 40 percent larger – that is, it may be 40 percent more costly to reduce inflation than it was two decades ago."

Bottom Line

There is nothing magical about the Fed's putative 1%-2% comfort zone for the core PCE deflator. Nothing! There is not a single piece of economic literature, to my knowledge, that empirically demonstrates that the economy enjoys better **micro**economics efficiency through "cleaner" relative real price changes at 2% than it would at 3%. None!

Thus, the Fed's current obsession with the 1%-2% range is not a matter of economics, but of religion. Indeed, as I reported after returning from Jackson Hole last August, a very senior Fed official, known as a hawk and currently a voting FOMC member, admitted this to me, while also intoning that to lift the comfort zone would be untenable, because it would run the risk of inflationary expectations loosing their sturdy moorings.⁴

Governor Mishkin takes this thesis squarely on and rebuts it: if inflationary expectations are exceedingly well anchored near 2%, which he believes to be the case, they, like gravity, should help – along with monetary restraint and a mildly-opening output gap to pull current inflation that is about ½% higher than 2% down toward that level.

Getting inflation down to the middle of the 1%-2% comfort zone would, however, be much more arduous, and costly – in terms of lost output and employment growth – because doing so would require shoving the inflationary expectations anchor – not just actual inflation – deeper into the disinflationary dirt.⁵

Without explicitly saying so, Ric openly questions whether doing so would be worth the cost, presumably because he knows there would be no **micro**economic efficiency gains from doing so. I certainly buy that argument, lock, stock and barrel. And pole, line, sinker and hook.

But I would go much further: Not only would there be no **micro**economic net payoff, I believe strongly there would be a net negative **macro**economic payoff from reducing the anti-deflation buffer between the inflation target and zero inflation.

More profoundly, the further is inflation away from zero, the more symmetrical the Fed's reaction function can be, mitigating the necessity of moral-hazard-inducing aggressive easing when negative shocks hit aggregate demand and/or investors

demand for risk. Put more simply, the further away from zero is the Fed inflation target, the further out of the money can be the putative Bernanke Put.

And, ironically, as much as Mr. Bernanke bemoans the current inflation rate above the 1%-2% comfort zone, I don't think he would, in his heart of hearts, strongly disagree (though I have not asked him explicitly). Harkening back to his famous November 21, 2002, speech, Mr. Bernanke intoned (my emphasis):

*“First, the Fed should try to preserve a buffer zone for the inflation rate, that is, during normal times it should not try to push inflation down all the way to zero. Most central banks seem to understand the need for a buffer zone. For example, central banks with explicit inflation targets almost invariably set their target for inflation above zero, generally **between 1 and 3 percent per year.***

Maintaining an inflation buffer zone reduces the risk that a large, unanticipated drop in aggregate demand will drive the economy far enough into deflationary territory to

lower the nominal interest rate to zero. Of course, this benefit of having a buffer zone for inflation must be weighed against the costs associated with allowing a higher inflation rate in normal times.

Second, the Fed should take most seriously – as of course it does – its responsibility to ensure financial stability in the economy. Irving Fisher (1933) was perhaps the first economist to emphasise the potential connections between violent financial crises, which lead to “fire sales” of assets and falling asset prices, with general declines in aggregate demand and the price level. A healthy, well capitalised banking system and smoothly functioning capital markets are an important line of defence against deflationary shocks.

The Fed should and does use its regulatory and supervisory powers to ensure that the financial system will remain resilient if financial conditions change rapidly. And at times of extreme threat to financial stability, the Federal Reserve stands ready to use the discount window and other tools to protect the financial system, as it did during

the 1987 stock market crash and the September 11, 2001, terrorist attacks.

Third, as suggested by a number of studies, when inflation is already low and the fundamentals of the economy suddenly deteriorate, the central bank should act more preemptively and more aggressively than usual in cutting rates. By moving decisively and early, the Fed may be able to prevent the economy from slipping into deflation, with the special problems that entails."

- 1 <http://www.federalreserve.gov/boarddocs/speeches/2002/20021121/default.htm>
- 2 "Comments Before The Money Marketeers Club: Musings on Inflation Targeting," *Fed Focus*, March 2006. <http://singapore.pimco.com/LeftNav/Featured+Market+Commentary/FF/2006/FF+March+2006.htm>
- 3 "At Seventeen," *Global Central Bank Focus*, September 2006. <http://singapore.pimco.com/LeftNav/Featured+Market+Commentary/FF/2006/FF+September+2006.htm>
- 4 <http://singapore.pimco.com/LeftNav/Featured+Market+Commentary/FF/2006/FF+September+2006.htm>
- 5 This is particularly the case given the perverse relationship between deflation in home prices and inflation in the home-owners-equivalent rent component of measured inflation, as detailed wonderfully recently by Stone and McCarthy's Ray Stone in "Wrestling with the Comfort-Zone and Distorted Core Inflation, March 21, 2007." http://www.smra.com/comfort_m.asp

Enough said.

Paul McCulley
Managing Director
29 March 2007

GCBF Podcast...

To download Paul McCulley's **Global Central Bank Focus**, check pimco.com or [iTunes.com](http://itunes.com).

Regulated by the Monetary Authority of Singapore as a holder of a capital markets services license in fund management. The services and products provided by PIMCO Asia Pte Ltd relate to advisory accounts, which are available only to accredited investors as defined in the Securities and Futures Act. The investment management services and products are not available to persons where provision of such services and products is unauthorised.

Past performance is no guarantee of future results. This article contains the current opinions of the author but not necessarily those of the PIMCO Group. Such opinions are subject to change without notice. This article has been distributed for educational purposes only and should not be considered as investment advice or a recommendation of any particular security, strategy, or investment product. Information contained herein has been obtained from sources believed to be reliable, but not guaranteed.

The Consumer Price Index ("CPI") is an unmanaged index representing the rate of inflation of the U.S. consumer prices as determined by the US Department of Labor Statistics. There can be no guarantee that the CPI or other indexes will reflect the exact level of inflation at any given time. The Personal Consumption Expenditures (PCE) deflator is published by the Bureau of Economic Analysis as part of the GDP report. It measures inflation across the basket of goods purchased by households, and is computed by taking the difference between current dollar PCE and chained dollar PCE.

No part of this article may be reproduced in any form, or referred to in any other publication, without express written permission.
© 2007, PIMCO

P I M C O

PIMCO Asia Pte Ltd
30 Cecil Street #23-01

Prudential Tower
Singapore 049712

65-6491-8000

Registration No. 199804652K