

Special Report

— U.S. Inflation Outlook:

Longer-Term Prospects Remain Favourable

May 27, 2005

The Federal Open Market Committee raised the Fed funds rate by 25 bps for the eighth straight time on May 3rd, warning that "pressures on inflation have picked up in recent months and pricing power is more evident." Yet it was little more than one year ago that the Fed was still worrying about "an unwelcome fall in inflation". Just this past February, not one FOMC participant predicted that the core PCE deflator would exceed 2.0% y/y by the end of the year, and most did not expect it to surpass 1¾%. However, in the three months since those forecasts were compiled the core PCE deflator has increased at a 2.9% annualized pace, the sharpest advance since December 2001. Having been surprised by the strength in recent inflation figures, policymakers appear almost certain to lift the Fed funds rate from its current 3.0% at the next FOMC meeting.

Core inflation should edge a bit higher from current levels. However, we expect underlying inflation to moderate by the fourth quarter, falling back into line with the FOMC's projections early next year. Evidence that higher short-term interest rates and imbalances in the U.S. economy have begun to weigh on growth are expected to back policymakers away from their consecutive rate hike agenda in the second half of this year.

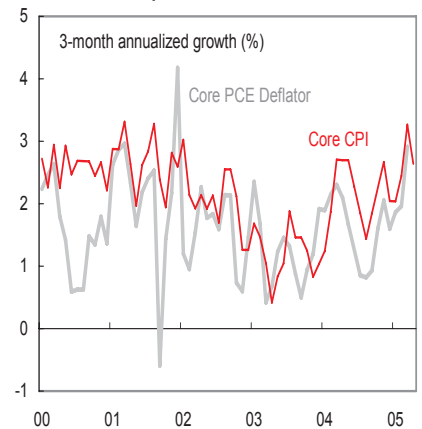
A victim of its own success?

The challenges that the Fed has faced in fostering a pro-growth, stable pricing environment in recent years are partly a consequence of the success it enjoyed combating the run-up in underlying inflation during the 1970s. To combat consumer price inflation that had soared into double digits early in the 1980s — reinforced by the second major oil price spike — the Volcker Fed pushed the Fed funds rate to 20%. By the time Alan Greenspan took the reins in 1987, the core PCE deflator had fallen below 4% y/y. Efforts by the Fed to improve transparency and anchor long-term inflation expectations helped drive the core PCE deflator below 2% over the next decade, its lowest level in over thirty years.

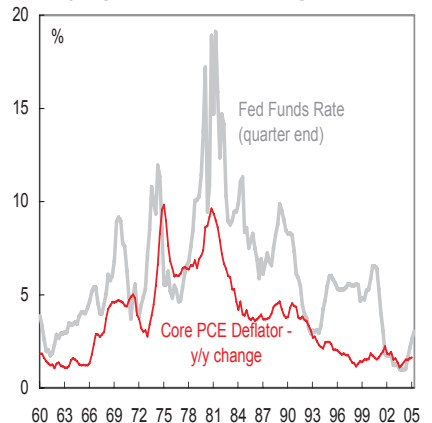
However, as inflation falls toward zero, the Fed's mandate of price stability becomes trickier. In response to the mild recession that began in early 2001 and the 9/11 terrorist attacks, the Fed would cut its funds rate by 475 bps in 2001, leaving it at a mere 1¾%. With the core PCE deflator at just a shade over 2% y/y, concerns grew that the Fed would have less recourse to ward off deflation should the economy continue to weaken. Employment continued to falter in 2002 and the core PCE deflator slipped below 1½% that fall.

Parallels with the situation that faced Japanese policymakers in the early 1990s were drawn. Speaking in November 2002, Governor Bernanke referenced a Fed study that concluded that in the event where inflation and interest rates have fallen close to zero and there

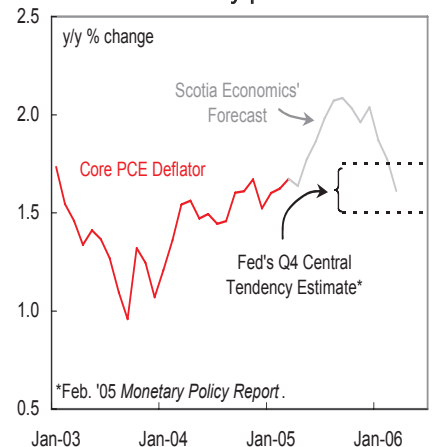
Signs of recent momentum in consumer price inflation indicators



Slaying the inflation dragon



The FOMC's core inflation forecast will likely prove too low



is a high risk of deflation, monetary stimulus "should go beyond the levels conventionally implied by baseline forecasts..." The Fed cut rates 75 bps to 1% between November 2002 and June 2003 and, until March 2004, would continue to warn that an "unwelcome substantial fall in inflation" exceeded that of a pickup.

The threat that wasn't?

A review of the underlying dynamics of the inflation figures suggests the deflation scare of 2002/03 was overblown. Between November 2001 and September 2003, the core PCE deflator fell from 2.3% y/y to 1.0% y/y. Consistent with the trend seen through most of the 1990s, slower growth in core services prices and lower core goods prices contributed to the decline. However, four components — used vehicles, implicit rent for owner-occupied housing, tobacco and selected financial services — accounted for approximately 1.1% of this 1.3% falloff.

Moderating prices for these items had little to do with a nascent deflationary trend in the broader economy. The decline in used vehicle prices was largely a response to the rise in demand for new vehicles due to generous dealer incentives. Owner-occupied housing prices are calculated based on rental units that have characteristics similar to owner-occupied homes. With low mortgage rates boosting home affordability, the rental vacancy rate jumped to an all-time high in 2003, depressing rents. The price of tobacco reflects a variety of factors beyond regular supply and demand, including the government's (now-defunct) production quota system, taxes, the impact of litigation settlements and consumer health considerations. Finally, the financial services in question are those that are furnished "without payment", such as cheque processing.

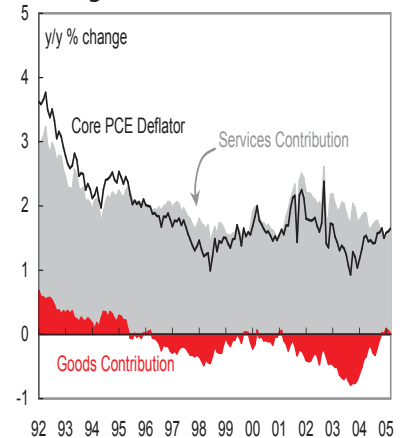
Excluding these four components, a different picture emerges. Growth in the core PCE deflator would still have been very low. However, it would have been rising, not falling. The Fed's deliberate behaviour reflected the "risk management" approach to monetary policy advocated by Chairman Greenspan, which dictates that policy be set with the full spectrum of possible economic outcomes, not just the most likely future path, in mind. Reflecting on the decisions taken in early 2003 in a speech in January 2004, the Chairman noted that the policy chosen at the time "would have been judged too loose" according to conventional models.

Part of the price of accommodation: higher inflation

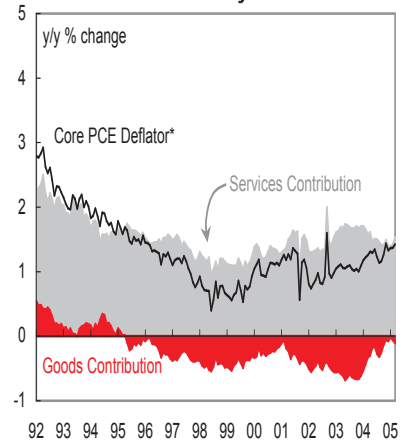
The exceptional steps taken by the Fed to guard against the low threat of deflation have contributed to global economic imbalances, surging asset prices and the spectre of inflation that has spooked financial markets. A low cost of capital has kept U.S. imports growing smartly, pushing the current account deficit to record levels as a share of GDP and putting considerable pressure on the dollar to weaken. A number of export-intensive countries have responded by artificially weakening their currencies, which has distorted capital flows via a staggering accumulation of global foreign exchange reserves.

Low yields on government bonds have encouraged a boom in housing markets in a number of industrialized countries, boosting prices and raising concerns of speculative excess in some regions. Low borrowing rates and

Core inflation slowdown the result of services disinflation and goods deflation

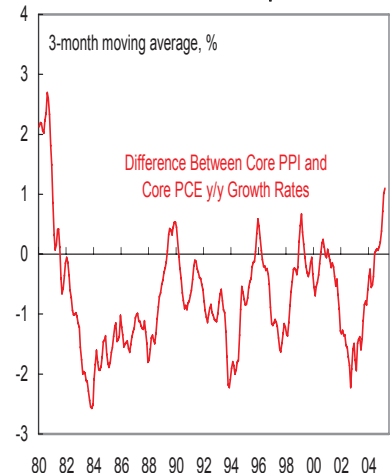


An alternative calculation suggests low, but rising, core inflation in recent years



*Excludes prices for used vehicles, implicit rent for owner-occupied housing, tobacco and financial services furnished without payment.

Producer prices are elevated relative to consumer prices



the rise in household balance sheet wealth have encouraged further consumption at the expense of traditional methods of saving. Particularly strong growth among emerging nations in the past two years has intensified competition for raw materials, sending their prices sharply higher. Indeed, the acceleration in goods prices since late 2003 has been strong enough to offset further moderation in core services prices, even though the former accounts for less than one-third of the core PCE deflator.

Where to from here?

The outlook for inflation depends on the interplay between a host of countervailing forces. Inflation pressures remain high at the factory gate. The producer price index was up nearly 5.0% in the year to April and growth in the core PPI has accelerated noticeably over the past six months. In fact, y/y growth in the core rate is farther above that of the core PCE deflator than at any time in almost 25 years, suggesting there remains considerable pressure to pass along higher production costs to the prices for consumer goods. Moreover, import prices are edging higher and will likely continue to do so with the U.S. dollar expected to resume its weakening trend as the year progresses.

Wage growth is edging higher, and small businesses are raising prices

Year-over-year growth in total wages & salaries has remained at a record low of 2.4% for three straight quarters — a reflection of the uneven pace of job creation. This has offset soaring benefit costs, holding y/y growth in the Employment Cost Index to its lowest level in 5½ years in Q1. However, growth in average hourly earnings has accelerated. Although the 2.7% y/y gain in April remained below its 10-year average, it marked a significant pickup from the sub-2.0% pace of a year earlier. Should the pace of job creation continue to improve, the tightening in labour markets would encourage further growth in average earnings.

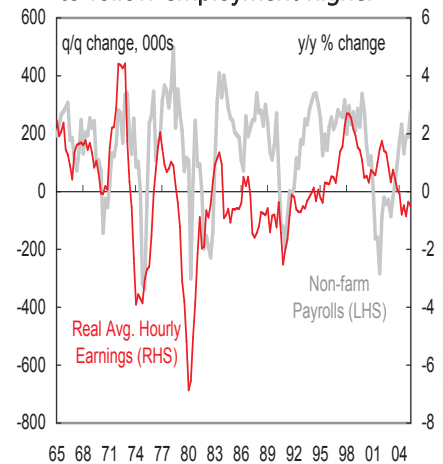
Small businesses have been raising their prices with more alacrity. In the latest NFIB monthly survey, the share of respondents indicating their intention to raise prices in the next three months was close to its highest level in twenty years. The heights to which this index has risen suggest considerable inflation pressures remain in what is a large sector of the economy.

Nevertheless, relief is in sight at the factory gate

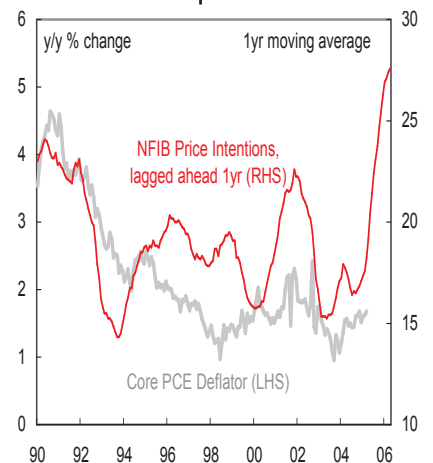
There are signs that price pressures at the factory level will ease later this year. A run-up in crude oil inventories has helped take the pressure off energy prices, and prices for a number of base metals have eased back from their multi-year highs. In the past year, the y/y rate of growth in the core crude goods PPI has fallen from almost 30% to less than 10%. Such a reversal has normally indicated a noticeable decline in the y/y core PPI growth rate is likely within the following year (the core intermediate goods PPI has already begun to moderate).

Moreover, the 2-year moving average in the ISM manufacturing prices paid index has done a good job identifying major inflection points in the core PPI in the past. Unless this index reverses its recent trend and moves higher in the coming months, the 2-year moving average will begin to turn lower around the end of this year. Also, the degree of pass-through of a

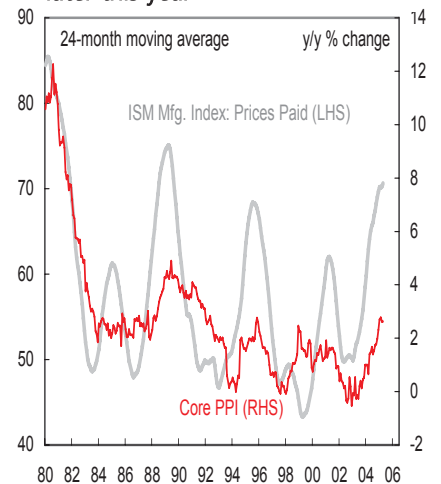
Real earnings have been slow to follow employment higher



Small businesses: a big part of the inflation equation



ISM index should signal a turn later this year



weaker dollar to consumer goods prices appears to have diminished over time, even though the import/GDP ratio has risen steadily. Empirical research suggests this could be due to the emergence of China, and because U.S. imports are increasingly comprised of goods that exhibit relatively low pass-through rates, such as capital equipment.

And the worst effects of higher energy prices are likely behind us

The relationship between energy prices and the core PCE deflator has broken down somewhat in the past two decades. FOMC participants noted in the May 3rd minutes that "considerable uncertainty" characterizes this relationship today, although they worried about the implications should energy prices remain high on a *sustained* basis. Nevertheless, the worst effects have probably already been seen. Prior to the mid-1980s, the 30-month change in the PCE energy deflator held fairly good predictive power for the y/y trend in the core PCE deflator. Assuming energy prices do not accelerate sharply from recent levels, this 30-month change saw its peak some months ago.

Strong competition continues to undermine firms' pricing power

Although businesses in most Fed Districts were able to pass some of their cost increases along to their customers according to the latest Beige Book, higher margins were reported in only two Districts. A number of services firms worried about the effect fuel surcharges might have on demand. Examples of consumers' considerable price sensitivity can be found in the market for new vehicles and with the popularity of interest-only mortgages. On the manufacturing side, one of the notable statements in the March ISM report was that steel firms had grudgingly reduced surcharges previously levied against their customers. Even if some margin must be sacrificed, their current high levels offer insulation.

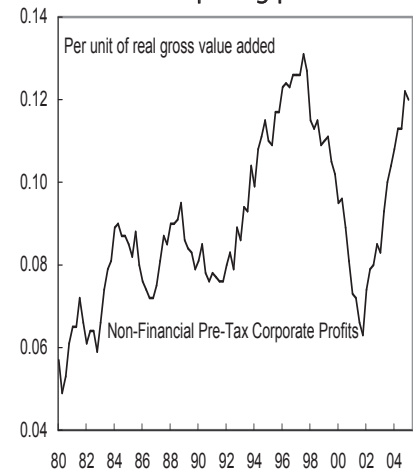
Productivity growth — still favourable

Strong productivity growth has helped firms protect their margins against any acceleration in worker earnings. The relationship between y/y growth in the core PCE deflator and average hourly earnings has broken down since 1995, when productivity growth took off. However, as Chairman Greenspan has noted, the rate of productivity growth is "notoriously difficult to predict". Productivity growth has certainly slowed from its strong pace in the wake of the U.S. downturn. However, its 2.6% annualized gain in Q1 was actually the strongest in three quarters. Research by the New York Fed that has been cited recently by both the Chairman and Governor Bernanke projected that annual productivity growth would continue at a strong 2.6% pace over the coming decade.

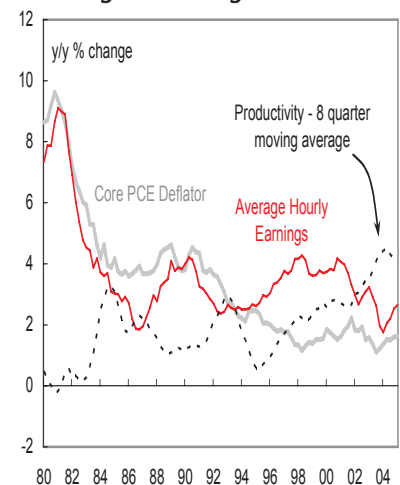
The outlook for inflation

Non-labour cost-push inflation pressures appear to be cresting. With firms noting a modest increase in pricing power, the risks to the inflation outlook remain tilted to the upside in the near term. Consequently, we would not be surprised to see the core PCE deflator above 2.0% this summer. However, signs of slowing economic growth as 2005 unfolds should quell

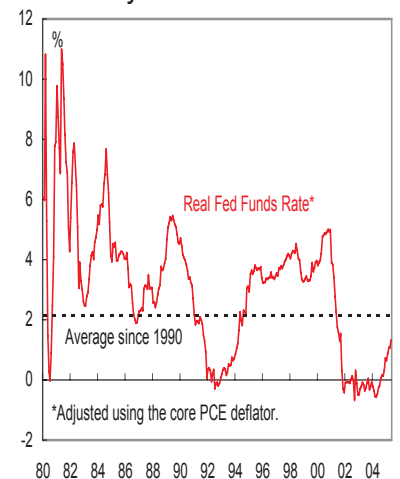
Lofty margins compensate for a lack of pricing power



Productivity growth provides a strong bulwark against inflation



The real Fed funds rate remains relatively low



the rise in inflation later this year. This is not to say that slower economic growth will by itself yield more subdued inflation in the near term. Such a direct relationship appears to play out over a much longer period than a few months. Rather, signs of slower growth are likely to amplify the competitive forces that are already keeping a stronger upturn in inflation at bay. By early 2006, the signs of ebbing inflationary pressures at the earliest stages of the production process should begin working their way through to consumer goods inflation, taking the core PCE deflator back towards 1½-1¾%. The Fed will have met its inflation target, just a little later than expected.

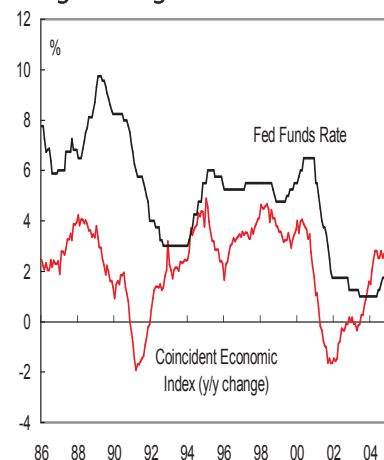
Policy implications

History offers some clues as to how the Fed might behave in a slowing-growth environment when core inflation is above target. Following a tightening campaign of 175 bps between June 1999 and May 2000, the FOMC convened in late June 2000. Although signs of a slowdown in aggregate demand were described as tentative, they had increased. Further complicating matters, the staff predicted a rise in core consumer price inflation from already heightened levels over the forecast horizon. Nevertheless, policymakers felt that the evidence of slower growth and the likelihood that the tightening already undertaken had not yet had its full effect on economic activity warranted a stand-pat decision. Policymakers would not raise rates again during that cycle, even though core inflation growth would continue to rise for another 1½ years.

Policymakers have raised rates by an even greater amount in the past year than they did between June 1999 and May 2000. Moreover, because of the marked rise in debt levels, households are arguably more vulnerable to the policy tightening already undertaken than they were five years ago. However, recent signs of an economic slowdown are still tentative, and the real Fed funds rate is much lower today than it was in mid-2000. Although some policymakers would not rule out the possibility that the tightening already undertaken could result in a larger-than-expected moderation in demand at the most recent FOMC meeting, *all* agreed that policy remained too accommodative. Consequently, another rate hike on June 30th appears likely.

With the latest minutes noting that most FOMC members regarded the recent slowdown as transitory, more than one more rate hike could be in the offing — a policy course currently priced into the Fed funds futures market. However, we believe the Fed is too optimistic in its view that economic fundamentals remain supportive of continued solid expansion. Our forecast calls for a slowdown in economic growth later this year, with inflation pressures expected to abate and inflation expectations remaining well contained. If history is any guide, the Fed will defer its rate hike agenda once signs of slower growth become convincing.

The Fed normally stops amid signs of a growth slowdown



Signs of slower growth later this year

