Perspectives on the Economy, Inflation, and Monetary Policy

Remarks for the

Philadelphia Business Journal Book of Lists Power Breakfast

July 22, 2008

King of Prussia, Pa.

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Federal Reserve Bank of Philadelphia

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The views expressed today are my own and not necessarily those of the Federal Reserve System or the FOMC.

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Introduction

Good morning. It is a pleasure to be here today to help recognize those of you in the field of finance whose organizations are featured in the *Philadelphia Business Journal*'s 2008 Book of Lists. You are here this morning because of your leadership — and the leadership exhibited by your organizations — during what has been a tumultuous time in the financial markets.

One of my most important duties as president of a regional Reserve Bank is to take information about this District's economy to the monetary policymaking meetings of the Federal Reserve's Federal Open Market Committee (or FOMC). My staff at the Philadelphia Reserve Bank and I gather such information through a variety of means, including our *Business Outlook Survey* of manufacturing firms, consultations with executives in a variety of other sectors, and meetings with our board of directors and advisory councils. A number of the financial organizations represented here today periodically provide insights to help us better understand economic and financial developments in our region. I would like to take this opportunity to thank you for your help.

Today, I want to share my thoughts about the economy and the financial markets. In doing so, I will comment briefly on how our economy got here and how I think it is likely to evolve over the next 18 months or so. I also want to devote part of my time to discussing my views about inflation and inflationary expectations. In particular, I want to

explain why it is so important that inflation expectations remain firmly anchored, and why I believe that is key to keeping inflation itself under control.

While we are on the subject of inflation, I also want to spend a moment on the distinction between headline inflation and core inflation, which excludes food and energy prices. As you know, headline inflation has been generating, well, headlines, with record prices for crude oil and many food commodities. Yet, core inflation — the measure policymakers have monitored closely for many years — has not risen as much. I will discuss how I think we should interpret this behavior and how it affects monetary policy.

Let me begin with some observations about the economy and the outlook before returning to the topic of inflation and inflation expectations.

The Evolution of the Economic Outlook and Monetary Policy

Last month at its June meeting, the FOMC voted to keep the federal funds rate at 2.00 percent, after a series of seven reductions from 5.25 percent beginning in September 2007. This easing of monetary policy came in response to deterioration in the outlook for the economy. All of us know in hindsight the main reasons for the change in outlook for economic growth: the sustained declines in the housing sector, the drag of higher energy prices on the broader economy, and the precipitous decline in the subprime mortgage market, which led to further disruptions in financial markets and ensuing spillover effects on real economic activity.

The financial turmoil was triggered by rising defaults on a broad class of subprime mortgages that exceeded what investors or rating agencies had anticipated. This led investors to question the value of a broad class of derivatives and securitized assets that were backed by these mortgages. Investors were also increasingly unsure how much exposure various institutions had to these questionable assets. Market participants became very risk-averse and uncertain about how to value a broad array of financial instruments and institutions. Moreover, the markets lost confidence in the rating

agencies' ability to appropriately classify the risk of various instruments. This only compounded the problems and prompted disruptions in the markets of a wide range of financial claims. We saw a rapid and substantial widening of risk spreads, and, in certain financial markets, trading became extremely thin or shut down completely. In particular, financial institutions found it more difficult and expensive to access the short-term funding necessary to manage their businesses.

The disruptions in financial markets led the Federal Reserve to take actions, some of which were unprecedented, to help ensure financial stability and limit systemic risk. These actions included lowering the discount rate and narrowing its spread to the FOMC's federal funds rate target; extending the term of discount window loans to as long as 90 days; and creating three new lending facilities that were intended to allow short-term funding markets to function more effectively: the Term Auction Facility (TAF), the Term Securities Lending Facility (TSLF), and the Primary Dealer Credit Facility (PDCF). The PDCF, in fact, opened the Fed's discount window to nonbank financial firms for the first time since the 1930s. In addition, the Fed took special steps to ensure that the collapse of investment firm Bear Stearns would not cause serious harm to other financial institutions or their customers.

As the financial market disruptions broadened, their potential spillover effects to the real economy were incorporated into economic forecasts, including those made by FOMC participants. The FOMC responded to the deterioration in the economic outlook by lowering its targeted federal funds rate appreciably. The substantial easing of monetary policy — a reduction in the federal funds rate target by 325 basis points since last September — has appropriately ensured that monetary policy is consistent with market forces that will bring economic growth back toward its long-term trend over the next year.

Certainly sluggish economic growth is painful for both consumers and businesses, and supporting sustainable economic growth is an important part of the Federal Reserve's dual mandate. But it is only one part. Congress has also made the Federal Reserve —

and only the Federal Reserve — responsible for ensuring price stability. Inflation, like slow growth, is also painful for consumers, those on fixed incomes, and businesses. Our dual mandate does not say we should ignore one of those mandates or shift attention from one objective to the other when it seems convenient to do so. I believe that would result in very poor economic outcomes and, most likely, greater volatility for the economy. We must be attentive to both growth and inflation in a consistent and systematic way, and as we are all aware, inflation has been rising. To some extent this reflects sharp increases in the prices of globally traded commodities. Energy prices certainly have kept headline measures of inflation quite high. In June, the consumer price index (CPI) was nearly 5 percent higher than its level a year ago. Core CPI inflation was 2.4 percent, above the level consistent with price stability. The outlook for inflation has been deteriorating. FOMC participants' forecast for core inflation in 2008 has risen by nearly 50 basis points over the past year, and their forecast for headline inflation is up about 75 basis points since April.

The consequence of our easing of monetary policy is that the inflation-adjusted — or real — interest rate on federal funds is now negative — between minus 1 percent and minus 2 percent. The last time we saw such a negative real fed funds rate was in 2003-2004. But the environment then was much different than it is now. Back then, the Fed was concerned about the threat of *deflation*. Today, as we all know, this is not the case. Many of us are concerned about *rising* inflation rates.

Keeping policy too accommodative for too long worsens our inflation problem. Inflation is already too high and inconsistent with our goal of — and responsibility to ensure — price stability. We will need to reverse course — the exact timing depends on how the economy evolves, but I anticipate the reversal will need to be started sooner rather than later. And I believe it will likely need to begin before either the labor market or the financial markets have completely turned around.

Economic Outlook

My own outlook for the rest of this year is for continued sluggish growth and weakness in labor markets. My 2008 forecast is for GDP growth of around 1.7 percent, which is near the upper end of the range of FOMC participants' projections. This is a somewhat better picture than just a few months ago. I will remind you that many forecasters in the early spring anticipated that the weak first-quarter growth rate of real GDP would be revised down and be a precursor to negative growth in the second quarter. Instead, not only was first-quarter growth revised up to just over 1 percent, but many forecasters now estimate that second-quarter growth will be between 2 and 3 percent. That is quite a swing in the outlook. While this can only be interpreted as good news, I still expect sluggish economic growth in the second half of this year and a further increase in the unemployment rate. The recent failure of IndyMac and the problems of Fannie Mae and Freddie Mac are the most recent events that have shaken confidence in our financial institutions and markets. This has raised the uncertainty surrounding forecasts for the economy, including my own. As I have said before, and as these recent events demonstrate, the road to recovery is likely to be a bumpy one.

Nevertheless, I continue to be generally more optimistic about 2009. As the housing market gradually completes its necessary adjustments and investors and the public regain confidence in financial markets, economic growth should return to its long-run trend of about 2¾ percent next year and the unemployment rate will gradually decline to about 5¼ percent by the end of 2009.

My outlook is that headline personal consumption expenditure (PCE) inflation will remain near 4 percent in 2008, reflecting in part the increase in energy prices. I expect core PCE inflation to be around 2½ percent this year.

In 2009, as energy and other commodity prices level off, I expect both measures of inflation to be lower — in the 2 to 2¼ percent range by the end of next year — <u>provided</u>

we set monetary policy appropriately to restrain inflation and keep inflation expectations well-anchored.

Inflation and Inflation Expectations

Achieving inflation below 2 percent over the next couple of years depends critically on the public's inflation expectations remaining well-anchored. That is, households, workers, businesses, investors, financial firms, all must have confidence that the Federal Reserve will not let inflation get out of control, despite the recent persistent upward pressure on headline inflation from energy and other commodity prices.

Why is this so important? Let me highlight the reason by drawing on the experience of the latter half of the 1970s — a period when inflation expectations did, in fact, become unanchored. It is a bit of history we do not wish to repeat. During that time, the public saw inflation rising relentlessly and concluded that the Federal Reserve was unable or unwilling to take the necessary steps to bring it under control.

Fearing that inflation would continue to rise, many suppliers to businesses began putting automatic escalator clauses tied to various measures of inflation into their long-term contracts. Workers, also fearing higher inflation, began demanding higher wages, and labor contracts increasingly contained automatic cost-of-living adjustments, or COLAs. Firms agreed to pay higher wages because they anticipated being able to pass along those higher labor costs by raising the prices of their own products. This led to what some economists call a wage-price spiral.

I want to make clear that the rise in inflation expectations in the 1970s was not caused by a wage-price spiral. That story has things backwards. The wage-price spiral was a consequence of the inflation and the unanchoring of expectations of inflation, not the other way around. And the unanchoring of inflation expectations was caused by the public's loss of confidence in the Federal Reserve's resolve to bring inflation back down. The credibility of the Fed's promise to deliver price stability was lost.

In recent months I have heard some analysts suggest that the current economic situation is not like the 1970s because unions are less prevalent and there is no evidence as yet of a wage-price spiral. Thus, a weak economy, with rising unemployment and declining payroll employment, will presumably prevent workers from demanding higher wages. But, again, that story has things backwards. It is not demands for higher wages that kick off the spiral, but the loss of confidence that the central bank will keep inflation controlled, which, in turn, leads to a rise in inflation expectations. The wage-price spiral is not the cause of the inflation, but the result.

This means that if monetary policymakers wait until they see the evidence of a wage-price spiral, they will be too late — the public will have lost confidence in the Fed's ability to keep inflation under control, and this will make the job of bringing inflation down much more costly and difficult. Moreover, we could end up with a period of both low economic growth and high inflation.

I want to emphasize that what we have been seeing in the economy this past year, and in my own outlook going forward, is very different from the 1970s, because I see the Fed as committed to keeping inflation expectations well-anchored. I agree with a statement Fed Chairman Bernanke made in June that the Fed will strongly resist an erosion of longer-term inflation expectations, because an "unanchoring" of those expectations would be destabilizing for economic growth as well as inflation.

Core Versus Headline Inflation

In discussing how to make monetary policy decisions, many economists as well as monetary policymakers have tended to focus on the behavior of core inflation rather than headline inflation for several reasons. It is not because economists don't eat or drive. Monetary policy does aim to control headline inflation over the intermediate to long run. The question is, what is the best signal of that long-run underlying inflation rate — what

guide should policymakers use as they set policy today, knowing that it won't have an effect on the economy until sometime in the future?

Some economists focus on core inflation because a change in the relative price of a key commodity, such as the rise in the price of oil, can affect near-term headline inflation but not necessarily the longer-term trend of inflation. Historically, the prices of food or energy have been quite volatile and at times have temporarily raised or lowered headline measures of inflation, only to settle down to more normal levels over time. Therefore, to have monetary policy react to what may very well be a short-term deviation has usually been considered a mistake.

One drawback to this argument is that it is not clear why one should define "core" by excluding just food and energy. While it is true that energy prices are particularly volatile, the prices of other components (such as apparel) have been more volatile than food prices. Thus, the argument for focusing on a measure that excludes the food and energy components is less compelling. Moreover, over the last 10 years, headline and core inflation have diverged by 40 to 50 basis points, and thus, the trend in core inflation has not been a reliable indicator of the trend in headline inflation.

Another reason to focus on core inflation would be if core inflation did a better job of forecasting future headline inflation than headline inflation itself. Since policymakers must be forward-looking in making policy decisions, such a forecasting ability would mean that we should monitor core rather than headline inflation.

Although some empirical work on inflation forecasting has supported this view for certain measures of inflation, recent research by our Philadelphia Fed staff suggests that measures of core inflation do not consistently outperform headline inflation in forecasting future headline inflation.[1] That research also finds that more accurate forecasts are

[1] T.M. Crone, N.N.K. Khettry, L.J. Mester, and J.A. Novak, "Core Measures of Inflation as Predictors of Total Inflation," Federal Reserve Bank of Philadelphia Working Paper 08-9, May 2008.

obtained by combining the CPI and PCE measures of inflation and that monitoring an array of inflation measures has merit.

Still another argument for focusing on core inflation comes from economic theory. Some economic models suggest that to achieve the best outcomes, monetary policy should try to stabilize the prices of goods and services that tend to be less flexible than those of energy and commodities, which are traded in global markets and whose prices are adjusted frequently. Inflation in these less flexible prices — what economists call sticky prices — represents a more persistent part of underlying inflation. But the standard measure of core inflation contains components that would not necessarily correspond to the goods and services in this sticky-price sector. And to the extent that changes in oil or other commodity prices seep into the prices of goods in this sector, the models suggest policymakers would want to react.

One way such seepage could occur is via inflation expectations. When increases in energy or food prices are persistent over a number of years, such continuous increases in headline inflation get the public's attention, even when measures of core inflation are better behaved. In such a situation, the public could very well start to wonder about what such ongoing increases in headline inflation mean for the longer-term trend of inflation — and whether the central bank will do anything to stop inflation from rising. If the public loses confidence that the central bank will keep inflation low in the long run, then inflation expectations will begin to rise. Once that happens, the unanchoring of inflation expectations will make it more difficult for the central bank to keep inflation low and stable or to bring inflation back down once it has risen.

Although monetary policy has a responsibility to respond to the weakening of the economy, this response must be consistent with the objective of restraining inflation. Policymakers must be careful in responding to relative price changes that tend to reduce economic activity while raising headline inflation. Monetary policy cannot control changes in the relative price of a key commodity, like oil or food. But it can help ensure that a relative price increase doesn't turn into a rise in overall inflation Keep in mind

that all sustained inflations begin with a change in relative prices. If policy becomes overly expansionary as it tries to address an economic slowdown, the relative price shock will result in higher inflation. That was the mistake we made in the 1970s.

Since energy price increases have been so persistent in recent years, I do believe more attention should now be paid to measures of headline inflation in setting monetary policy. I don't believe we can be sanguine that the behavior of core inflation will keep the public's inflation expectations well-anchored in the face of persistently high headline inflation. To keep inflation expectations anchored means that monetary policymakers will have to back up their words with action.

Conclusion

In sum, this year and next will be quite challenging. The economy will grow this year but at a slow pace, and the unemployment rate is likely to get worse before it gets better. At the same time, inflation will be uncomfortably high for a while.

I am more optimistic about the outlook for 2009 and I expect we will see economic growth return to near its longer-term trend. But to prevent recent inflation from continuing to plague the economy and to avoid a rise in inflation expectations, I believe the current very accommodative stance of monetary policy will need to be reversed, and depending on how economic conditions evolve, I anticipate that this reversal will likely need to begin sooner rather than later.

As policymakers, we must remember that the path of inflation over some intermediate term is not independent of our policy decisions. While monetary policy cannot control relative price movements, sustained inflation is not something that is imposed on us. As policymakers we have a choice. If we remain overly accommodative in the face of these large relative price shocks to energy and other commodities, we will ensure that they will translate into more broad-based inflation that — once ingrained in expectations — will be

very difficult to undo. I believe we must and will take the appropriate steps to ensure that does not happen.