

## **Two Pillars of Central Banking: Monetary Policy and Financial Stability**

Opening Remarks to the PACB Convention  
Pennsylvania Association of Community Bankers  
130th Annual Convention  
Hilton Waikoloa Village, Waikoloa, Hawaii  
September 8  
9:15 – 9:45 a.m. Hawaiian time [3:15 p.m. – 3:45 p.m. EDT]

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Time: 25 minutes

### **Introduction**

Good morning and aloha. It is a pleasure to be here in Hawaii and to have this opportunity to speak with so many leaders from the Pennsylvania banking community. I am honored to be the opening speaker for this 130<sup>th</sup> Annual PACB Convention. Being first gives me plenty of leeway to choose what to talk about. Although I originally considered touching on several issues in my time with you today, the disruptions in financial markets that emerged in August convinced me to change my focus and talk about the role of the central bank in times of financial instability.

The Federal Reserve has two broad responsibilities. The first is monetary policy, which involves providing the nation with price stability and promoting sustainable economic growth. Indeed, ensuring price stability is one of the most important contributions a central bank can make toward promoting sustainable economic growth. The second involves ensuring that the payment system and the financial system function effectively, which helps maintain financial stability. These two responsibilities are related but different. Today I will speak about some of the tools the Federal Reserve has available to carry out its responsibilities and achieve its goals and objectives. In doing so, I hope to give you a better understanding of how I think about the Fed's two pillars of central banking – monetary policy and financial stability.

## Monetary Policy and the Federal Funds Rate

Let me begin with monetary policy. The goals of monetary policy are to promote price stability and maximum sustainable economic growth. On an ongoing basis, the Federal Reserve seeks to foster financial conditions – including growth of money and credit and a level of short-term interest rates – that are consistent with achieving these goals. The primary tool used for implementing monetary policy is the federal funds rate, which is the interest rate at which banks trade reserves overnight. As you know, the Federal Open Market Committee or FOMC meets approximately every six weeks to decide on an appropriate target for the fed funds rate. The Committee's objective at each meeting is to set the target funds rate at a level that will support these longer-term goals.

The influence of the FOMC's targeted funds rate on inflation and growth occurs with a lag, so by necessity the FOMC must be forward-looking in setting an appropriate funds rate target. The FOMC must forecast future economic growth and inflation based on the available data on the economy and financial conditions, including a particular target path for the fed funds rate. As new data become available, the Committee may find that it needs to modify its forecast of future economic outcomes because of changes in various factors affecting the outlook. Consequently, as the outlook for output and inflation changes, the Committee may in turn adjust its fed funds rate target to achieve its goals. Thus, the setting of appropriate monetary policy is a dynamic exercise.

As you are no doubt aware, the monthly statistics reported on the economy are very volatile and subject to revision. The FOMC works hard to differentiate those factors that may have only a temporary impact on the economy or inflation from those of a more sustained nature. Temporary disturbances that don't affect the forecast for inflation and growth over the time horizon that monetary policy affects the economy do not necessitate a change in the target funds rate. But shocks that have a more lasting impact and cause the forecast for inflation and growth to deviate significantly from the FOMC's goals do call for a change in monetary policy.

The FOMC uses various indicators and economic models to differentiate between these types of shocks. A good example is our use of the core price index, which excludes food and energy. Some have suggested that by focusing on the core price index, we are ignoring the very real price increases that families are paying at the grocery store and the gas station. The fact is that the prices of food and energy tend to be very volatile and seasonal, and large swings up or down are often, at least partially, reversed. Movements in headline or total inflation, which includes food and energy prices, may therefore be misleading in terms of the longer-term outlook for overall inflation. In general, by looking at the core price index we are apt to get a better picture of what the overall inflation rate will be in the future, or, in other words, of the underlying inflationary trend.

The U.S. economy has proven to be very resilient to all sorts of shocks over the past several decades. In part this reflects the fact that not all sectors of the economy move together, and a decline in one sector does not always imply major problems in the economy as a whole. The economy withstood Hurricane Katrina, oil shocks, and 9/11

with remarkable resiliency. I believe it is important to understand and appreciate this underlying stability of the economy in the face of temporary disturbances as we seek to assess monetary policy in the face of developments in housing.

The ongoing correction in the housing sector has certainly contributed to slower economic growth during the past year. The persistent weakness in housing has also contributed to downward revisions in the outlook for the economy. Going forward, until housing demand picks up and some of the inventory of unsold homes is worked off, residential construction will continue to be a drag on economic growth. I expect this drag to diminish gradually but continue until sometime next year. I believe the most likely outcome is that economic growth will return toward trend later in 2008; however, there is considerable uncertainty surrounding my forecast. So this is clearly a sector that bears careful monitoring, not only because it is important to the economic outlook, but also for its recent disruptive side-effects on financial markets – a topic I will return to shortly.

The Committee looks at a variety of data and economic information in formulating its economic outlook. When information indicates that the outlook for economic growth and inflation has changed, one still has to ask whether it has changed enough to impede the achievement of the Fed's goals of price stability and maximum sustainable economic growth. As I mentioned, the economy is remarkably resilient. One must also ask how much monetary policy can influence that forecast over the relevant time horizon. Thus the Committee usually does not base its decision to change monetary policy on any one number, but instead assesses the cumulative impact of all incoming data for the outlook in light of its ultimate goals. It is when the data indicate that the outlook for economic growth and inflation has changed and is no longer consistent with the Committee's longer-term goals that one is more likely to see adjustments to the FOMC's fed funds rate target.

Operationally, the New York Fed's Open Market Desk implements the FOMC's monetary policy decisions by estimating the amount of reserves the banking system needs to achieve the target funds rate and either injecting or withdrawing reserves as required. This is typically done once a day. It usually involves the Open Market Desk temporarily buying or selling government securities through overnight or term repurchase agreements (or repos), or more rarely, outright purchases of government securities. Note that if the Desk injects funds using overnight repos, the funds are automatically withdrawn from the banking system the next day. Using these open market operations, the Federal Reserve expands or contracts the amount of reserves in the banking system to maintain the target funds rate.

If the financial markets are not functioning smoothly, it becomes more difficult for the Desk to maintain the daily fed funds rate at the FOMC's target level. More importantly, if financial markets are not functioning smoothly and efficiently, monetary policy may have more difficulty achieving its objectives.

## **Liquidity, Financial Stability, and Central Bank Actions**

Economic prosperity is enhanced by a well-functioning financial system. The Federal Reserve seeks to maintain the stability of the financial system by ensuring that the payment system and the financial system function in an orderly and effective manner. The Fed tries to promote these objectives through its roles in the payments system and bank regulation and supervision.

A key ingredient for making sure any shock to the financial system does not have widespread adverse effects is to have a healthy banking system. As a regulator and supervisor, the Federal Reserve seeks to ensure that financial institutions engage in sound risk management practices. Fortunately, banks have been quite healthy in the U.S. in recent years. They have enjoyed relatively strong earnings, have been well-capitalized, and have had relatively low delinquencies going into this period of adjustment in the housing market.

A healthy banking system is particularly important when there are rapid declines in asset prices – such as house prices – which potentially cause balance-sheet adjustment problems for banks and other financial institutions. The fall in the market value of their assets can make it difficult for these institutions to meet demands from depositors or debt-holders to pay off their liabilities. Failures of banks or other financial firms can lead to a disruption of the supply of credit that exacerbates the adverse effects of the decline in asset prices and has the potential of leading to more severe contractions in economic activity. Rapid declines in asset prices have at times been associated with sharp contractions of economic activity and severe financial problems for lenders and the financial system.

Fortunately, legislative and regulatory changes in the U.S. over the past several decades have allowed banks and other financial firms to diversify their portfolios of assets and their geographic boundaries. Institutions that make mortgage loans no longer are limited to taking deposits within limited geographic areas. They no longer are restricted as to what interest rate they can pay on those deposits. And they no longer are prevented from making other types of loans. In addition, financial innovations, such as asset securitization, have allowed the spreading of risks in the financial system. This means that today banks and many other financial institutions are much better diversified than during previous housing cycles. Thus, both deregulation of the financial system and innovations in financial products have lessened the risk of asset price declines triggering substantial adverse effects in the financial sector.

But, as is evident from this summer's disruptions in financial markets, they have not eliminated that risk. In one sense, the markets were, and to some extent still are, trying to uncover just where some of that risk has gone and how much exposure various institutions have to it.

When financial shocks threaten financial stability, a central bank must be prepared to act promptly to forestall any subsequent large adverse effects to the economy or financial system.

However, the term “stability” in this context can be a bit misleading. While an effectively functioning financial system is usually associated with financial stability, it is not appropriate for the Fed to ensure against financial volatility per se, or against individuals or firms taking losses or failing. Policymakers must be careful to allow the marketplace to make necessary corrections in asset prices. To do otherwise would risk misallocating resources and risk-bearing, as well as raise moral hazard problems. This could ultimately increase, rather than reduce, risks to the financial system.

Thus, the Fed does not seek to remove volatility from the financial markets or to determine the price of any particular asset; our goal is to help the financial markets function in an orderly manner. I agree with Chairman Bernanke that we should not seek to protect financial market participants, either individuals or firms, from the consequences of their financial choices. The success of free markets in generating wealth and an efficient allocation of resources depends on individuals and firms having the freedom to be successful and reap the rewards of their efforts. But just as important, those same individuals must also have the freedom to fail. Both of these freedoms must exist if the marketplace is to work its magic. When either one of these freedoms is missing, incentives will be distorted and outcomes will be less beneficial for society,

So in the face of a sharp decline in housing and severe problems in the subprime market, the central bank must let markets reassess and re-price risk, which will ultimately lead to the establishment of new levels of prices of housing-related financial assets. During this adjustment process, the central bank must also ensure the orderly functioning of financial markets so that this process of price discovery — the mechanism through which markets reallocate risk—takes place, while also ensuring that other financial markets are not disrupted and the broader economy is not harmed by spillover effects. As you could tell from events in August, this is not always an easy task and can at times involve the Fed providing above-normal amounts of liquidity to financial markets.

Let me spend a few minutes discussing some of the actions the Federal Reserve can take at times like these to promote the orderly functioning of financial markets. What actions are actually taken will depend on how long any particular disruption to the orderly functioning of financial markets is expected to last. Such actions will also depend on whether the disruption is narrowly focused or is causing – or is likely to cause – significant disruptions to other markets or the broader economy.

### **Fed Actions to Provide Liquidity**

To provide liquidity to facilitate the orderly functioning of financial markets, the Federal Reserve can make temporary adjustments to day-to-day open market operations or to discount window lending. As you know, discount window lending is collateralized lending the Fed provides to depository institutions. Providing liquidity does not

necessarily require a more fundamental change in the direction of monetary policy as implemented by a change in the fed funds rate target, although that is also an option if financial sector problems spill over to significantly harm the outlook for the broader economy.

For instance, when liquidity strains appeared in the financial system in mid-August, the Fed injected a larger-than-usual amount of funds into the U.S. banking system through open market operations on several days — \$24 billion on Thursday, August 9, and \$38 billion on Friday, August 10. The Desk can enter the marketplace more than once each day when necessary to provide additional liquidity. Indeed, on Friday, August 10, the Desk did three separate operations – one around 8:30 a.m., one close to 11:00 a.m., and one just before 2:00 p.m.

Operations on August 9 and 10 were larger injections of funds than is typical. However, these operations were consistent with the objective of the Fed's Open Market Desk in New York to provide reserves as needed to promote trading in the fed funds market at rates as close as possible to the FOMC's fed funds rate target of 5.25 percent. Such open market operations are conducted, as I mentioned earlier, through repurchase agreements or reverse repurchase agreements (repos or reverse repos), thereby injecting or withdrawing liquidity via the U.S. banking system. Most of that liquidity was returned to the Fed on Monday, August 13. With markets calmer, the Fed injected just \$2 billion that day — an amount consistent with many typical daily open market operations. Open market operations on subsequent days continued to be flexible in terms of their amounts and frequency, and depended on conditions in financial markets.

Some news stories in August reported the totals for these daily Fed operations by adding them all together, which overstated the total amount of liquidity the Fed was injecting into the financial system at any one time. Actually, many of these repo operations were overnight transactions that reversed the next business day.

The Fed also has the ability to inject term repos into the financial system. For example, at the start of each two-week reserve maintenance period, the Open Market Desk often arranges 14-day repurchase agreements when it expects to have to add at least a certain amount of funds for the entire two-week period. For example, the Desk did such a 14-day term repo around 8:30 a.m. on Thursday, August 9, for \$12 billion.

In addition to overnight or term open market operations, the Fed in August turned to the discount window as another way to provide liquidity to financial markets. The Fed announced on August 17 that it was prepared to make discount window loans for up to 30 days to depository institutions that were experiencing unusual funding needs in light of the volatile conditions in financial markets. In addition, the Fed cut the discount rate by 50 basis points – from 6.25 percent to 5.75 percent.

The Federal Reserve launched the current discount window facility, which charges a rate above the Fed's target fed funds rate, in January 2003. The current facility helps limit upside volatility of the federal funds rate, eliminates the subsidy inherent in

the previous below-market discount rate framework, and reduces the Fed's administration of the window. Another objective of the new facility was to eliminate the old stigma associated with banks' borrowing at the discount window and reduce banks' reluctance to borrow from the Fed.

Since 2003 the discount rate on primary credit has been above the Fed's target for the federal funds rate. Reserve Banks lend freely at this higher rate to healthy banks that pledge acceptable collateral, basically on a "no-questions-asked" basis. Virtually all assets held by banks are eligible for use as collateral. What's more, banks are not required to exhaust alternative sources of funds before coming to the discount window, and banks can request a discount window loan at any time of the day. In addition – and very importantly at times of financial market stress – banks are able to relend the funds to other banks or to other parties.

By doing so, upward spikes in the federal funds rate or other short-term interest rates can be capped at the level of the discount rate if banks borrow from the discount window and relend those funds in the marketplace. When the Fed announced on August 17 that it was lowering the discount rate by 50 basis points, the cap on the upward movement of the fed funds rate was effectively lowered. In addition, by extending the term of discount window loans to 30 days, the Fed was allowing banks to provide funds to their customers for extended periods. In effect, a customer could provide a bank with collateral the bank could then pledge to the Fed for a discount window loan for up to 30 days.

Changes in the amount and frequency of daily open market operations and changes to the discount window are both very flexible ways for the central bank to inject liquidity into the marketplace when the financial system is under stress. They will not necessarily eliminate above-normal volatility in financial markets – certainly not right away. Nor will they mean that individual firms will not fail. But they are intended to promote more orderly functioning of the financial markets.

Providing liquidity in the face of a financial shock that threatens the orderly functioning of markets is an important function of the central bank. The Fed has taken extraordinary steps at other times in the past two decades to help keep financial markets functioning. It is important to realize that doing so does not necessarily require a change in the target fed funds rate. The Fed provided substantial liquidity to the financial system in the months leading up to Y2K, for instance, without a change in the fed funds target. Indeed, providing liquidity to the financial system in a timely manner in times of financial stress may serve to limit spillover effects into the broader macro economy and thus obviate the need for a change in monetary policy. In those cases when financial shocks lead to substantial and sustained reassessments of the economic outlook in relation to the Fed's ultimate objectives for price stability and economic growth, the Fed may have to take actions, not only to address the financial shock, but to change monetary policy as well.

## Conclusion

In sum, the Fed's open market and discount window actions in mid-August underscore that the central bank stands ready to promote the orderly functioning of financial markets when the fallout from problems in one sector of the economy, such as those in the subprime market, is disruptive to the smooth functioning of the financial system. In my view, promoting financial stability is an important responsibility of the Fed as it seeks to pursue its monetary policy goals of price stability and maximum sustainable economic growth.

I believe disruptions in financial markets can be addressed using the tools available to the Federal Reserve without necessarily having to make a shift in the overall direction of monetary policy. A change in monetary policy would be required if the outlook for the economy changes in a way that is inconsistent with the Fed's goals of price stability and maximum sustainable economic growth. Certainly, standing here today, it is obvious that tighter credit conditions and disruptions in financial markets have increased the uncertainty surrounding our forecasts of the economy. The FOMC continues to monitor incoming data and other economic information for signs that these disruptions are having a broader impact on the economy. In my view, it will be very important to assess such information in light of the Fed's commitment to achieving its long-run goals of price stability and sustainable economic growth.