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## TESTIMONY BEFORE THE HOUSE COMMITTEE ON FINANCIAL SERVICES

Chairman Frank, Chairman Watt, Ranking Member Bachus, and members of the Committee, I am grateful for this chance to share my views about Federal Reserve policy.

I greatly admire the Federal Reserve's response to our nation's financial and economic crisis. The Fed's policymakers and staff have demonstrated a remarkable combination of boldness, creativity, and pragmatism. The unprecedented combination of new lending programs, large asset purchases, and near-zero interest rates has prevented a very painful recession from turning into something even worse. Without the Fed's extraordinary policies, we could be facing a depression on the scale of the 1930s.

It is not yet time to reverse the emergency policies of the last two and a half years. Yet someday monetary policy must return to normal. Currently, the Fed is intensively analyzing its options for a future shift in policy. I am glad that this Committee is also examining the issue.

In these remarks, I will focus on the aspect of Federal Reserve policy that I believe is most important going forward: the Fed's interest rate target. Currently, the Fed is holding the federal funds rate, the rate at which banks lend reserves to one another, below a quarter of a percent. Policymakers face two questions about unwinding this highly unusual policy. First, when is the right time to raise the federal funds rate? Second, when that time comes, how can the Fed ensure that the funds rate rises to the level it desires? I will start with the second question, which is the easier of the two.

### How to Raise the Federal Funds Rate

Federal Reserve officials are confident they have the tools to raise the federal funds rate. This confidence is warranted: the funds rate will rise whenever the Fed decides to raise it.

It is likely, however, that raising the funds rate will require non-traditional monetary tools. The textbook approach to raising interest rates is for the Fed to sell assets, which drains reserves from the banking system. The trouble with this approach is that, given the Fed's expanded balance sheet, the

necessary asset sales could be very large and therefore might disrupt financial markets. In particular, it could be dangerous for the Fed to sell a significant fraction of the mortgage-backed securities that it currently owns. Such an action could shake confidence and raise mortgage interest rates, reversing the Fed's progress in repairing the mortgage market.

Fortunately, the Fed can easily raise the federal funds rate without selling assets. Indeed, it has several tools for accomplishing this task, including reverse repurchase agreements and term deposits. Fed officials have explained how these tools work on a number of occasions. I will focus here on one tool that is likely to be central to the Fed's tactics: interest on reserves. Even if the Fed had no other way to control the federal funds rate, its authority to pay this interest -- granted by Congress in October 2008 -- would be sufficient.

The explanation is simple. The interest rate on reserves should put a floor on the federal funds rate, because a bank will not lend in the federal funds market if it can earn more from deposits at the Fed. If reserves earn an interest rate of 2%, for example, banks will demand at least 2% when they lend to one another. Therefore, the Fed can raise the federal funds rate simply by raising the interest rate it pays on reserves.

In practice, the link between the interest rate on reserves and the federal funds rate is imperfect. In recent months, the Fed has paid 0.25% on reserves, yet the federal funds rate has averaged around 0.15%. This difference reflects the fact that not all lenders in the federal funds market are banks with deposits at the Fed.

Yet the gap between the two interest rates should not be a cause for concern. The gap is around a tenth of a percentage point, which is too small to matter for the economy. And the gap is unlikely to rise if the Fed raises the interest rate on reserves. If the Fed raises this rate to 2%, the federal funds rate may only rise to 1.9%, but again a tenth of a percent doesn't matter.

The gap between the two interest rates will remain small because a substantial gap would create an arbitrage opportunity -- a chance for banks to make easy money. Bank could borrow in the federal funds market, deposit their borrowings at the Fed, and earn profits. This behavior would quickly push the federal funds rate toward the interest rate on reserves.

So, to reiterate, the Fed clearly has the means to raise the

federal funds rate when it decides the time is right.

### The Current Economic Crisis

When should the Fed raise the federal funds rate? The first part of the answer is, not any time soon.

In some respects, our country's economic crisis is passing. Stock prices have risen over the last year and banks are returning to profitability. The recession has ended and the rate of economic growth may be returning to normal. In isolation, these developments suggest that the Fed should consider raising interest rates before long.

Yet by one crucial measure, the economy is still in a deep crisis. The unemployment rate in February was 9.7%, and most forecasters predict only a modest decline in this rate over the next two years. This is a disaster for an economy where an unemployment rate below 5% was considered normal and non-inflationary less than three years ago. I'm sure the members of this Committee understand the suffering that unemployment is causing across the country.

It is *not* paradoxical that unemployment is high at the same time economic growth is returning to normal. A normal rate of output growth, around 2% or 3% per year, is needed just to keep the unemployment rate constant. Once unemployment is high, it only falls if growth is well above normal for a significant period.

Unfortunately, there is little reason to believe we will soon see above-normal growth. In past recessions, the Federal Reserve has lowered interest rates and kept on lowering them until growth accelerated. That will not happen this time, because the Fed has hit the zero bound on rates. We can hope that the Fed, the Administration, and Congress devise policies to spur growth. But it is not clear what will work.

The key point is that America still faces an unemployment crisis. While it is prudent to plan for a future when expansionary policies are unwound, current circumstances call for more expansion, not less.

Some people argue that the Fed's expansionary policies should be reversed because they threaten to cause inflation. In my view, however, fears of imminent inflation are unwarranted. As measured by either the federal funds rate or the monetary base, current Fed policy is highly expansionary. In normal times, the

Fed's policy stance would indeed produce inflation. But these are not normal times.

We need to remember why expansionary policy normally causes inflation. Businesses around the country do not monitor the Fed's balance sheet. They do not base their price increases on the level of bank reserves. Instead, monetary policy influences inflation through its effects on aggregate spending. If policy is too expansionary, the economy overheats. Firms see their sales rise, and their productive capacity is strained. These conditions encourage firms to raise prices rapidly.

Given this mechanism, inflation is a danger only if the economy is overheated -- regardless of what the Fed is doing. With unemployment near 10%, overheating is one problem we don't need to worry about.

### When to Raise the Federal Funds Rate

Some day the economy will recover and the Fed should raise the federal funds rate -- not soon, but some day. Under what conditions should the Fed take this action?

Fed policymakers have signaled their answer to this question. In its statement on January 27, the Federal Open Market Committee lists the conditions that "are likely to warrant exceptionally low levels of the federal funds rate for an extended period." These conditions include "low rates of resource utilization, subdued inflation trends, and stable inflation expectations." Simplified slightly, the Fed says it is keeping the funds rate near zero because unemployment is high and inflation is stable. Turning this around, we can see what might lead the Fed to raise the funds rate: lower unemployment or rising inflation.

This stance is consistent with mainstream thought about monetary policy. Normally, a central bank should consider both unemployment and inflation in setting interest rates. In my view, however, the current crisis warrants a deviation from traditional policy. The Fed should give greater weight than usual to unemployment. In particular, it should not raise interest rates until we see major progress in reducing the unemployment rate. As long as unemployment remains high, the Fed should keep the federal funds rate near zero -- *even if inflation starts to rise.*

Since the double-digit inflation of the 1970s, the Fed has sought to keep inflation low. For most of today's policymakers, "low" means 2% or less. When Ben Bernanke was a Fed Governor in

the early 2000s, he said his "comfort zone" for inflation was between 1% and 2%. Since then, the Fed has generally kept inflation in or near Bernanke's range. In 2009, core inflation (inflation excluding food and energy prices) was 1.8%.

In the current crisis, however, the Fed should *not* try to keep inflation below 2%. A moderate rise in inflation -- say to 3% or 4% -- would probably be good for the U.S. economy. This conclusion follows from several related points.

First, as I have previously discussed, we need a period of above-average output growth to reduce unemployment. This rapid growth could have a side effect of higher inflation. If the Fed won't let inflation rise above 2%, it may not be possible to reduce unemployment substantially.

Second, a moderate rise in inflation could help *cause* the growth spurt the economy needs. An increase in growth requires an increase in aggregate spending, and spending depends on the real interest rate -- the nominal rate minus inflation. A lower real rate makes it less costly to borrow, raising investment and consumption. The zero bound is preventing the Fed from reducing the nominal interest rate, but higher inflation can reduce the real rate.

Third, there is no evidence that the economy functions less efficiently at 3% or 4% inflation than at 2%. Paul Volcker is hailed as a hero for conquering the inflation of the 1970s. People forget that Volcker's achievement was to reduce inflation to about 4% per year, its level for most of the 1980s. Volcker evidently did not consider it urgent to reduce inflation further, and it would be no disaster for inflation to creep back to 4%. Any costs to the economy pale in comparison to 10% unemployment.

Finally, a moderate increase in inflation would reduce the danger arising from the zero bound on interest rates. If inflation rises permanently by one percentage point, nominal interest rates rise by the same amount. (This is the "Fisher effect" of basic macroeconomics.) With higher nominal interest rates, the Fed would have more room to cut rates during future recessions. It would be less likely to hit the zero bound before the economy recovers.

## Conclusion

To summarize:

- The Fed has the tools to raise the federal funds rate when

the time is right. One powerful tool is interest on reserves.

- With an unemployment rate of 9.7%, we are far from the point when the Fed should raise the funds rate.

- With unemployment so high, there is little risk of inflation despite expansionary monetary policy.

- The Fed should not increase the federal funds rate until we see major progress in reducing unemployment. The Fed should keep the funds rate near zero even if inflation starts to rise. A moderate rise in inflation would probably be good for the economy.