The Financial Crisis and the Federal Reserve

by

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The financial crisis that started in August 2007 is the most severe shock to financial markets that United States has experienced since the Great Depression. Not only has this shock had dramatic effects on the U.S. economy, with the recession that started in December 2007 likely to be the most prolonged and deep one since World War II, but it also has had immense effects on the Federal Reserve.

There are four questions that I would like to address about the implications the financial crisis has for how the Federal Reserve conducts policy.[1]

- Is monetary policy effective during financial crises?

- Would an inflation target (an explicit, numerical objective for inflation) help the Fed prevent deflation and moderate economic downturns during financial crises?

- Has the Federal Reserve pushed the envelope so far with its nonconventional monetary policy that it could lead to a weakening of Federal Reserve independence?

- What are the pros and cons of having the Fed be a systemic regulator?

I will examine each of these questions in turn.

[1]The choice of four questions is particularly appropriate since this speech was given immediately after the second night of Passover in which the "four questions" play a prominent role in the seder.

Is Monetary Policy Effective During Financial Crises?

The tightening of credit standards and the failure of the cost of credit to households and businesses to fall during the current crisis, despite the sharp easing of monetary policy, has led to a common view that monetary policy has not been effective during the recent financial crisis. Not only has this view been expressed by economists such as Paul Krugman (2008), but, as the minutes from the October 28-29, 2008, FOMC meeting indicate, it has been expressed by some FOMC participants (Board of Governors of the Federal Reserve System 2008). These views hark back to early Keynesian discussions of the ineffectiveness of monetary policy during the Great Depression period. Because of the shocks to credit markets from the financial crisis, the argument is that monetary policy is unable to lower the cost of credit and is thus pushing on a string. Monetary policy is therefore ineffective.

This view leads some to argue that there is no reason to use monetary policy to cope with a crisis or that easing monetary policy during a crisis is counterproductive because it can weaken the credibility of the monetary authorities to control inflation and thus be inflationary. I strongly disagree with both of these conclusions, and argue below that if the goal of the monetary authority is to offset the contractionary effects of a financial crisis like the current one, then it may need to pursue more aggressive monetary policy easing than normal

To see why monetary policy has been even more effective during this financial crisis is to ask the following hypothetical question: What would have happened to the interest rates relevant to spending decisions by households and businesses if the Federal Reserve had *not* lowered the federal funds rate by over 500 basis points since September of 2007? Clearly interest rates on default-free Treasury securities would have been higher, but also credit spreads would have widened by even more than they did during this crisis because the weaker economy would have made conditions in financial markets even more stressed. Another way of saying this is that macroeconomic risk would have been higher and so credit spreads would have been higher along with higher default-free interest rates. The outcome would then surely have been that housholds and firms would have faced much higher interest rates, with the result that household and firm spending would have declined even more precipitously than we have seen, resulting in a far deeper recession and possibly even a depression in the current circumstances.

I would argue that the financial shock we have been experiencing over the last year and a half has been more severe and more complicated to deal with than the financial shock that led to the Great Depression. The difference between this period and the Great Depression period has been the aggressive actions taken by the Federal Reserve in this episode, in contrast to the mistaken Federal Reserve policies of benign neglect pursued during the Great Depression that Friedman and Schwartz (1963) has so eloquently described. I would argue that if the Fed had not provided liquidity to the financial system and eased monetary policy as aggressively as it did during this episode, the economy would now be even in a more severe recession and possibly even a depression.

The logic above indicates that not only has monetary policy been effective during the current financial crisis, but that it has been even more potent than during normal times because it not only lowered interest rates on default-free securities, but also helped lower credit spreads. The argument here does not, however, say that monetary policy can offset the contractionary effect of a massive financial disruption in the credit markets of the type we have been experiencing. The financial crisis has led to such a widening of credit spreads and tightening of credit standards, that aggressive monetary policy easing has not been enough to contain the crisis. This is why central bank, and especially the Fed, has provided liquidity support to particular sectors of the financial system in order to contain liquidity squeezes.

Even though I believe that the Fed's liquidity injections, which have expanded the Fed balance sheet by a trillion dollars, have limited the negative impacts of the current financial crisis, they have not and will not be enough to get a strong economic recovery. To get the financial system working again, financial institutions will need to be recapitalized sufficiently to bring them back to health, so that they have the proper incentives to go out and make loans to households and businesses with productive investment opportunities.

The foregoing argument, which indicates that monetary policy may be even more effective during financial crises than in other times, suggests that if the central bank seeks to stabilize economic activity, there is a case for more aggressive easing of monetary policy during financial crises than in normal times. Financial crises have a particularly nonlinear effects on the economy because they can lead to an adverse feedback loop. That is, the financial crisis leads to a seizing up of financial markets and widening of credit spreads, which leads to a contraction of economic activity that worsens financial market conditions and widens credit spreads further, which leads to a further contraction of economic activity, and so on. As I outlined in Mishkin (2008a), the resulting nonlinearity argues against the result from a linear-quadratic (LQ) framework that optimal monetary policy should display considerable inertia. The now-classic tome on this topic is Michael Woodford (2003), and he makes a valid argument for gradualism under normal conditions when the macroeconomy operates in a far more linear fashion so that the LQ framework makes sense. However, when there are strong nonlinearities from the adverse feedback loop I have described above, large economic downturns are less likely to occur if the central bank pursues an alternative approach to monetary policy in which it engages in risk management by using monetary policy to take out insurance against tail risks.

By easing monetary policy aggressively to offset the negative effects of financial turmoil on aggregate economic activity – this includes cutting interest rates preemptively, as well as using nonconventional monetary policy tools to lower credit spreads, as the Fed has been doing – monetary policy can reduce the likelihood that a financial disruption might set off an adverse feedback loop. This reasoning suggests that facing the possibility of an adverse feedback loop, monetary policy needs to get ahead of the curve and ease even more aggressively than it normally would. The logic here is the same as that from the research on the implications of the zero-lower-bound for interest rates for the conduct of monetary policy (e.g., Orphanides and Williams, 1998, Reifschneider and Williams, 2000, and Ahearne, Gagnon, Haltmaier and Kamin, 2002). That literature tells us that the nonlinearities arising from the zero-lower-bound on interest rates indicates that monetary policy should be even more aggressive in lowering the policy interest rate when a negative shock to aggregate demand might result in the zero-lower-bound being a constraint on monetary policy.

Another way of saying this comes from one of the great generals of the U.S. Civil War, Nathan Bedford Forest, who said that the secret to winning battles was to get there "fustest with the mostest." The Bernanke Fed has certainly understood this, driving the federal funds rate down to zero in December of 2008 and with its extraordinary injections of liquidity into the financial system. The European Central Bank (ECB) seems to understand this principle less well. Officials in the ECB (or to use the more correct term, the European System of Central Banks) have recently made statements that the ECB should not lower their policy interest rate to zero because then they would lose the ability to lower the policy rate in the future. This reasoning is just plain wrong.

Would an Inflation target (An Explicit, Numerical Objective for Inflation) Help the Fed Prevent Deflation and Moderate Economic Downturns During Financial Crises?

Many central banks throughout the world have adopted an explicit, numerical objective for inflation, commonly referred to as an inflation target, although this terminology is somewhat misleading because having a numerical objective does not mean that you should try to hit it over short periods of time as the word "target" seems to imply. The Federal Reserve is currently not one of them, but it is discussing this possibility. In the current circumstances, when we are in the throes of a financial crisis, would adoption of an explicit, numerical inflation objective help moderate the downturn in the economy and prevent deflation?.

My answer is absolutely yes.

The usual argument for establishing a transparent and credible commitment to a specific numerical inflation objective is that it provides a firm anchor for long-run inflation expectations, thereby directly contributing to the objective of low and stable inflation. Adoption of an explicit, numerical inflation objective has been successful in other countries in keeping inflation from going too high. However, particularly important now is that an inflation target can help prevent inflation from falling too low, which not only would help prevent deflation but also economic activity as well.

Up until recently, inflation risks were on the upside. But the contractionary shock from the severe disruptions in the financial markets that we have been experiencing lately has shifted the economic landscape completely. Not only has the economy entered a deep recession, but inflation has plummeted. CPI inflation on a year-over-year basis has fallen below zero, which is well below what would be a sensible inflation objective consistent with price stability, which I would argue is around 2%. Core measures of inflation, which strip out food and energy prices and are thus potentially more accurate guides to underlying inflation, are also below 2% on a year-to-year basis, and also indicate that the risks to inflation are on the downside.

The danger right now is not that inflation expectations will be too high, but rather that they become unanchored in the negative direction. Indeed, inflation expectations, whether measured by consumer surveys, surveys of professional forecasters or the difference between interest rates on non-indexed Treasury securities and Treasury indexed bonds (referred to as breakeven inflation rates), all point to a sharp decline. Particularly disturbing is the recent collapse of breakeven inflation rates which suggest that the probability of deflation has become much higher. The experiences with deflation in the Great Depression and the "lost decade" in Japan suggest that a deflation causes great hardship in the economy. Second, with the federal funds rate near zero and therefore unable to go lower, persistent deflation would raise the effective cost of borrowing to households and business because it would mean that the interest rate adjusted for changes in the prices of real goods and services would rise. Despite an interest rate of zero, monetary policy would then become highly contractionary. The result is an heightened danger of an adverse feedback loop of the type described by Eggertson and Woodford (2003) in which expected deflation raises the real interest rate, which lowers aggregate demand, which causes an even greater deflation and expected deflation, leading to higher real interest rates which causes an even greater deflation and expected deflation, and so on.

How would adopting an explicit numerical inflation objective help stabilize economic activity in the current economic environment? First, a commitment by the Federal Reserve to keep the inflation rate near an explicit objective, say 2%, over a longer term horizon would provide more incentives for the Fed, both because it would want to stick to its word and because it would subject it to more public scrutiny, to take future steps to have monetary policy be sufficiently expansionary in the future. Eggertson and Woodford (2003) has shown that a lack of such commitment was one reason why nonconventional monetary policy actions such as quantitative easing by the Bank of Japan was ineffective in promoting economic recovery.

Second, when the financial system starts to recover, to keep future inflation under control the Federal Reserve will have to drain the massive amounts of liquidity that it has pushed into the financial system over the past year and a half. One danger from the Fed recent aggressive monetary policy easing and the expansion of its balance sheet is that at some point in the future it might unanchor inflation expectations in the upward direction. This unanchoring of inflation expectations could then lead to significant inflation in the future because the behavior of inflation is significantly influenced by the public's expectations about where inflation is likely to head in the long run (Mishkin, 2007). A commitment to an explicit numerical inflation objective will encourage the Fed explain to the public how this liquidity will be removed and subject the Fed to public pressure if it was not taking the necessary steps to make this happen. In other words, a commitment to an explicit numerical inflation objective will help the Fed in developing an exit strategy from the enormous expansion in its balance sheet that it has been using to engage in expansionary, nonconventional monetary policy.

How would the Fed to commit to an explicit numerical inflation objective at this juncture? The answer, as I outlined in my last speech as a Federal Reserve governor (Mishkin, 2008b), would involve three steps.

- First, the horizon for the projections on output growth, unemployment, and inflation would be lengthened. This change might involve simply an announcement of FOMC participants' assessment of where inflation, output growth, and unemployment would converge under appropriate monetary policy in the long run. Alternatively, the horizon for the projections could be extended out further, say to five or more years.
- Second, FOMC participants would work toward reaching a consensus on the specific numerical value of the mandate-consistent inflation rate, and this consensus value would be reflected in their longer-run projections for inflation.[2]
- Third, the FOMC would emphasize its intention that this consensus value of the mandate-consistent inflation rate would only be modified for sound economic reasons, such as substantial improvements in the measurement of inflation or marked changes in the structure of the economy.

The Fed took the first step after the last FOMC meeting. The second step would not be very difficult to do since the minutes of the last FOMC meeting indicated that most FOMC participants had a long-run projection of 2% for inflation under appropriate policy, with the lowest value being 1.5%. Thus the difference between FOMC participants on what they think the long-run inflation objective should be is not that large. With regard to the last step, since Federal Reserve officials always emphasize that their decisions on monetary policy are driven by sound economic reasoning, indicating that the inflation goal would be decided on the same basis would appear to be consistent with the way the Federal Reserve has been operating.

[2] FOMC participants could work toward reaching this consensus about mandate-consistent inflation using the overall inflation rate (sometimes referred to as "headline inflation"), as measured by PCE inflation, to be consistent with the Federal Reserve's dual mandate. Overall and core (excluding changes in the prices of food and energy) inflation rates are likely to be at similar rates at a horizon of five or more years.

Does the Federal Reserve's Nonconventional Monetary Policy That Involves Fiscal Actions Pose a Danger to Its Independence?

The Federal Reserve has implemented large liquidity injections into the credit markets to try to get them lending again. Starting in mid-August 2007, the Fed lowered the discount rate to just 50 basis points above the federal funds rate target from the normal 100 basis points (later to 25 basis points). Over the course of the crisis, the Fed broadened its provision of liquidity to the financial system well outside of its traditional lending to depository institutions, leading Paul Volcker, a former Chairman of the Federal Reserve, to describe the Fed's actions as going to the "very edge of its lawful and implied powers." The number of new Fed lending programs over the course of the crisis spawned a whole new set of acronyms, the TAF, TSLF, PDCF , AMLF, CPFF, and MMIFF and TALF, making the Fed sound like the Pentagon with code-named initiatives and weapons.

Many of these liquidity injections have a fiscal element because they put risk on the Fed's balance sheet that could impose substantial losses to the taxpayer at some future juncture. I believe that Volcker is quite right that the Fed is pushing the envelope and going to the limits of the mission that central banks mission have been given by governments. I do not see Volcker's comment as a criticism of the Fed: rather it is a statement of fact. The Fed's actions have been unprecedented and have involved the Fed in taking risk onto its balance sheet in a way that it has never done before.

There are several reasons the Fed has engaged in liquidity actions that have a fiscal element. First, one lesson from the study of past episodes of financial crises is that the faster action is taken to back stop the financial system, the less severe and shorter the crisis is (Mishkin, 1991). Because central banks can create liquidity out of thin air, they have the ability to provide this liquidity far faster than any other government entitiy. We have seen this in the current crisis, where the Federal Reserve has been able to intervene almost on a moment's notice as in the Bear Stearns episode, both in effect purchasing Bear Stearns toxic assets and setting up a liquidity facilty, the Primary Dealers Credit Facility (PDCF), to contain contagion to other investment banks.

Second, the Fed has in effect taken fiscal actions because the U.S. government has had political constraints which have hampered its ability to deal with this crisis. Unfortunately, this crisis hit when we had a lame duck presidency that was weakened by very low popularity ratings. What was truly extraordinary in the fall after the Lehman bankruptcy and the AIG bailout was that when the Bush administration proposed an allocation of $700 billion for the Treasury Asset Relief Program (TARP), it was opposed most strenuously by the President's own political party. Although the four day delay in passing the TARP after it was initially voted down may appear to be so short that it didn't matter, I believe it had important economic consequences. It signaled that the U.S. government was unlikely to act rapidly and with policies to deal with the crisis.

Some pastt policy actions have exacerbated this situation. The public is furious over the way financial firms were handed large sums of taxpayer money without imposing sufficient restrictions to limit payments to shareholders and to other stakeholders such as the management of these firms. A particular example is the anger over the $165 million of bonuses that were supposed to be paid out to AIG employees, some of whom can be blamed for engaging in speculative behavior that helped make this crisis so damaging. The result is that there seems to be an unwillingness of Congress to allocate the funds necessary to clean up the financial system. Either for this reason or because the Obama administration feels it is too politically risky to get the necessary funds to recapitalize the financial system, at this point in time there does not yet seem to be the political will to push to get these funds.

In a situation like this, the Bernanke Fed has had to deal with the following tradeoff. If it doesn't step in to stabilize the financial system, we could have a depression because the government is unlikely to do it. On the other hand, the Fed's actions have moved it in the direction of conducting fiscal policy by taking so much private risk onto its balance sheet. This possible overreaching of the Fed's mandate has two consequences. First, the Fed's actions to stabilize the financial system increase moral hazard. Knowing that the Fed is backstopping the system will result in market participants expecting that the Fed will do this in the future, with the result that there is likely to be less market discipline to restrain risk taking in the future. Second, going to the legal limits of its authority to engage in these fiscal actions is politically very risky. It is likely to lead to attacks on the independence of the Fed. We have already seen this with a recent nonbinding Senate resolution that was just passed, which not only asks the Fed to publish the nature and amounts of collateral it is accepting in its various lending programs, along with information that could be used to figure out who it is lending to, but also includes an evaluation of the appropriate number and associated costs of the Federal Reserve Banks. This evaluation is a not too subtle attack on Federal Reserve independence because it would weaken a key part of the Federal Reserve System, the Federal Reserve Banks.

Ben Bernanke, the Fed Chairman, has had to weigh both elements of this tradeoff – a possible depression if the Fed does not act, or a loss of independence if it does – and has come down squarely on taking actions to prevent a depression. He has gone out on a limb because, I believe, he sees the danger of inaction to be much greater than the danger of the loss of Fed independence. He has had to make a tough choice indeed, and history will be the judge.

What are the Pros and Cons of having the Fed be a Systemic Regulator?

The current framework for banking regulation rests on the principle that regulation should ensure the soundness of individual institutions against the risk of loss on their assets.[3] However, focusing on individual institutions has obscured the growing importance of the shadow banking system, and the way that financial markets that have grown on the back of securitization have taken over from traditional banks.

There is another respect in which the focus on individual institutions has been problematic. Of course, it is a truism that ensuring the soundness of each individual institution ensures the soundness of the system as a whole. However, it is possible, indeed often likely, that attempts by individual institutions to remain solvent in a crisis can undermine the stability of the system as a whole. If one financial institution was lending to a second institution, but decides to be prudent by cutting lending, this prudent course of action may cause a sharp withdrawal of funding from the second institution. (See Morris and Shin, 2009.) This is precisely the sort of run that happened to Bear Stearns, Lehman Brothers and the UK bank Northern Rock, all of whom ended up being crippled by the run.

In addition, a focus on individual institution's risks can make boom/bust cycles of the type that can lead to severe financial crises worse, as occurred during the recent episode. In the

[3]This section draws heavily on a memo issued by the Squam Lake Working Group on Financial Regulation (2009) that I have been involved in preparing.

name of modern, price-sensitive risk management practices, banks with short-term incentives load up on exposures when measured risks are low, only to shed them as fast as they can when risks materialize, irrespective of the consequences of the rest of the system. The recoiling from risk by one institution generates greater materialized risk for others. It is this spillover to the wider economy that creates the largest social costs.

Given the above arguments, there have been calls, most prominently by the U.S. Treasury (Geitner, 2009) for a regulator that has a system-wide perspective that can meet the challenges ahead. One choice for this systemic regulator is the central bank, the Federal Reserve in the case of the United States. What are the arguments in favor and opposed to having the Federal Reserve take on the systemic regulator role.

The are four arguments in favor of having a central bank as the systemic regulator. First, the central bank has daily trading relationships with market participants as part of its core function of implementing monetary policy. As such, it is best placed to monitor market events and to flag looming problems in the financial system. No other (public) institution has comparable insight and access to the broad flows in the financial system.

Second, the central bank is the lender of last resort. It has a balance sheet that it can use as a tool in meeting systemic financial crises. As the lender of last resort, it will be called upon to provide emergency funding in times of crisis. Too often during the current crisis, the central bank has been drafted in at the last minute to provide funding to an institution in crisis when the central bank had no first hand knowledge of the institution. Northern Rock in the United Kingdom was supervised by the FSA, and Bear Stearns in the United States was supervised by the SEC. No amount of information sharing is a substitute for the first-hand information gathered in direct on-site examinations. If you're in line to put up money to save an institution, there is an argument for you to supervise it.

Third, the central bank's mandate to preserve macroeconomic stability is consistent with the role of ensuring the stability of the financial system. Macroeconomic policy and macroprudential policy are tailor made for each other.

Fourth, central banks are among the most independent of government agencies. Successful systemic regulation requires a focus on the long run. However, politicians often have incentives to focus on the short run in order to get elected. Insulating the systemic regulator from day-to-day interference by politicians is thus an important element to ensuring a systemic regulator’s success. The respect and independence that central banks have therefore make them natural candidates to be systemic regulators.

Despite these arguments in favor of having the Federal Reserve as the systemic regulator, there are some dangers to giving it this additional responsibility that argue against it. First, the clear focus on achieving output and price stability will become blurred once the central bank also takes account of financial stability objectives. Second, there are also legitimate concerns about the central bank overreaching itself in the resolution stage of a crisis when it greatly extends its balance sheet to lend to private institutions. Third, there are dangers of increased politicization of the central bank's actions due to its role in the resolution stage of a crisis.

Some safeguards can mitigate the dangers described above. For example, some central banks have used long-run inflation targets to keep the price stability goal firmly in view. In the resolution stage of crises, a clear demarcation of roles might be able to minimize political pressures on the central bank. Only the fiscal authority (Treasury and FDIC with approval from Congress) can authorize the use of public funds. The central bank as the systemic regulator can assists the fiscal authorities, but it is the fiscal authorities who will be ultimately responsible in any resolution effort. However, if the systemic regulator has performed its prevention role effectively, the need to enter the resolution stage of a crisis will hopefully be very rare indeed.

An additional danger from giving the systemic regulatory authority to the Federal Reserve provides a fourth argument against having the Fed take on this role. Right now the Federal Reserve does not have sufficient resources to carry out this task. I can speak from experience that when I was a governor of the Federal Reserve, the staff has been stretched to the limit. This problem surely became far worse after I left the Board of Governors in September when the financial crisis became even more virulent after the Lehman Brothers bankruptcy. Without sufficient resources, the Federal Reserve not be able to identify systemic risks and craft the needed regulations to promote financial stability. Giving the systemic regulator role to the Fed will stretch already thin resources even thinner. If additional resources are not provided to the central bank, this will not only compromise the ability of the central bank to promote financial stability as a systemic regulator, but it can also compromise its ability to conduct monetary policy successfully in the future.

Another related problem is that the Fed has been handed tasks by the Congress that are not central to its mission. The Fed not only conducts monetary policy and is a bank regulator, but it is also a consumer regulator under the Truth in Lending Act. This creates two problems. One is that protecting consumers involves setting and then enforcing the appropriate rules under a transparent legal framework. Such work is primarily done by lawyers specializing in rule-making and enforcement. The orientation of an effective systemic regulator must be different from that of a rule-enforcing consumer protection or conduct of business regulator. A regulator charged with enforcing rules and managing systemic risk may eventually devote too much of its attention to rule enforcement.

Another problem with having the Fed involved in consumer regulation is that consumer regulation is highly charged politically. Because consumer regulation affects so many constituents, politicians sometimes put tremendous pressure on regulators to take actions to protect consumers without worrying about unintended consequences. Political pressure on the Fed because politicians are unhappy with its role as a consumer regulator may interfere with its independence and thus in its ability to conduct monetary policy and perform systemic regulation.

Conclusion

There has never been a more exciting (but stressful) time to be a central banker. The current financial crisis raises four questions, among others, about how the Federal Reserve operates. To conclude I will summarize my answers to these questions.

1. Is monetary policy effective during financial crises? Yes. Indeed it is even more effective than during normal times and this provides a rationale for a risk management approach in which the Fed has needed to be even more aggressive and less inertial in its monetary policy actions.

2. Would an inflation target (an explicit, numerical objective for inflation) help the Fed prevent deflation and moderate economic downturns? Yes. Not only would an explicit numerical inflation objective make deflation less likely at the current juncture, which would promote price stability and moderate the economic downturn, but it would also help the Fed to design and communicate an exit strategy from its current expansion in its balance sheet to make an inflationary outcome less likely in the future.

3. Has the Federal Reserve pushed the envelope so far with its nonconventional monetary policy that it could lead to a weakening of Federal Reserve independence? Yes. The

Fed has gone to the legal limits of its authority and it has already started to lead to attacks on the Fed's independence. The Federal Reserve Chairman has had to weigh the tradeoff between not engaging in liquidity provision to prevent a depression, which involves a fiscal element because it puts private risk onto the Fed balance sheet, against increasing the likelihood of attacks on the Fed's independence because it has pushed the limits of its authority. He has come down on the side of taking unprecedented actions to decrease the probability that the U.S. and the world economy will suffer a depression.

4. What are the pros and cons of having the Fed be a systemic regulator? The arguments for the Federal Reserve to take on this role stem from its independence, daily interactions with markets, focus on macroeconomic stability, and its role as a lender of last resort. However, there are arguments against it taking on this role because it would not be able to perform its role as the monetary policy authority and the systemic regulator effectively without a substantial increase in resources. In addition, it already has a very broad focus because it is a consumer regulator and may face political pressure as a systemic regulator that could weaken its independence and interfere with its ability to successfully conduct monetary policy.

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