



A Slow Recovery with Low Inflation

Allan Meltzer

Economics Working Paper 13110

HOOVER INSTITUTION
434 GALVEZ MALL
STANFORD UNIVERSITY
STANFORD, CA 94305-6010

November 2013

This paper examines explanations of the low inflation and slow growth of the economic recovery after the 2008 financial crisis.

Acknowledgements: Thanks to John Taylor for helpful comments.

The Hoover Institution Economics Working Paper Series allows authors to distribute research for discussion and comment among other researchers. Working papers reflect the views of the author and not the views of the Hoover Institution.

A Slow Recovery with Low Inflation

By Allan H. Meltzer

After almost five years of recovery, the unemployment rate remains well above postwar norms and much of the decline in the rate results from discouraged workers leaving the labor force. The largest part of recent new job placements are part-time jobs, many at relatively low wages. The number of people in poverty is at a record high. An administration that came into office promising to narrow the gap between middle class and highest income has seen the gap widen. Their statements and speeches do not reflect the fact that the outcome of administration policy is the opposite of its rhetoric.

These and other results come after massive fiscal stimulus and unprecedented expansion of bank reserves. The popular conclusion among financial analysts is that inflation remains low because the economy grows slowly. Monetary history does not give unambiguous support to that proposition. Economies with high inflation have not uniformly or even generally experienced high growth. As recently as the 1970s, the United States had rising inflation without high real growth or high employment. Paul Volcker frequently offered the anti-Phillips curve proposition: high unemployment and high inflation are positively related. He said that the way to lower the unemployment rate was to reduce expected inflation, and it worked as he said.

In the paper that follows I offer explanations of the current low inflation and the slow growth in this recovery.

The Slow Recovery and Low Inflation

Federal Reserve actions always have many critics. One very unusual difference now is that criticisms do not come only from financial markets and academics. Paul Volcker and Alan Greenspan have joined Taylor, Bordo, me, and others.

The Federal Reserve has a strong sense of cohesion and loyalty. I cannot recall a previous example of former chairmen publicly criticizing the policy and actions of their

successors. Even the outspoken Marriner Eccles did not criticize Thomas McCabe nor did Martin publicly criticize Burns. But both Volcker in a speech to the New York Economics Club (Volcker 2013) and Greenspan on television urged, in Volcker's words "a more orthodox central banking approach."

My criticism of recent actions is in a historical context. It reflects some problems the Federal Reserve has had often: political pressures, politicized actions, neglect of the real and nominal distinction, excessive response to monthly and quarterly data, and neglect of the role of money and credit markets. One indication of a political influence is the use of Federal Reserve policy to allocate credit. See Goodfriend (2012).

I will discuss two issues. First, why is there so little inflation despite highly expansive Federal Reserve actions? Second, why is the recovery so much slower than after other recessions?

Not only is the economic recovery slow, it has failed to reduce the poverty rate. The unemployment rate has fallen, but new full-time jobs are scarce. Much of the fall in the unemployment rate resulted from discouraged workers leaving the labor force. And many of the new jobs are part-time, low-wage jobs, not the types of jobs that encourage spending. On the whole a miserable record.

Inflation remains low because, up to the time of writing, early August 2013, money growth is not excessive. The central monetarist proposition is in Milton Friedman's well-known words: "Inflation is always and everywhere a monetary phenomenon." Since money growth is low, inflation remains low.

We have never before experienced excessive reserve growth accompanied by moderate money growth. That's what we have now. In the year to late July 2013, the Fed increased bank reserves 34 percent. For the half year, the rate is a 69 percent annual rate. Money growth, M2, rose 6.9 percent for the year to date, and 5 percent annual rate for six months. Similar outcomes are found in earlier years of QE2 and QE3. Through most of its history the Fed ignored money growth, claiming that monetary velocity is unstable, and they repeat that error now. The statement is often true of quarterly velocity, but not true of annual velocity, as shown by data for 1919 to 1995 in Meltzer (2009). The Fed's reason for disregarding money growth is an example of its concentration on monthly and quarterly data and neglect of persistent changes.

The St. Louis Fed data plot M_2 velocity against the spread of the three- month T-bill less the own rate on M_2 . Figure 1 shows that relation has remained stable in this cycle despite exceptionally low interest rates.

PLACE FIGURE 1 ABOUT HERE

The QE programs piled up excess reserves in the banks to more than \$2 trillion in late July 2013. Some say this shows a liquidity trap. Utter nonsense! The traditional meaning of a liquidity trap defined the trap as a condition in which increases in money had no effect on interest rates, prices, and output. See Brunner and Meltzer (1968). Increases in equity market prices, reductions in long-term interest rates, and changes in the exchange rate accompany reserve additions. A hint in June that the Fed may soon “taper” the size of reserve additions dramatically raised long-term interest rates. Advocates of a liquidity trap explanation should read the literature. None of the price changes should occur.

The Fed entered the crisis after a period of low interest rates in 2003 to 2005 that served to finance the boom. It responded to the start of the Great Recession and the credit crisis by flooding the markets with liquidity. This prevented a collapse of the payments system. One can criticize some actions such as failure to charge a penalty rate but the prompt and massive response deserves commendation. That good start was not followed by a long-term strategy.

The five years of recovery after 2008 are the slowest in the postwar. I propose two main reasons. First, the Fed failed to recognize that the slow recovery reflected real economic problems, not principally monetary problems. Second, Obama administration policies deterred investment and employment, delaying recovery.

Keynesian analysis of the recession and recovery interpreted the decline as a decline in (nominal) aggregate demand. By decisively lowering interest rates and increasing bank reserves, policy expected to restore aggregate demand. The actions known as QE2 and QE3 had, at most, a modest effect on recovery. Two main reasons are that many of the problems were real, not monetary, and more than 95 percent of the increase in reserves had no effect on money or bank credit growth. The entire expansive effect was the first-round effect on interest rates, the exchange rate, and asset prices. Instead of expanding loans and money, banks increased excess reserves. By paying interest on excess reserves, policy encouraged the reserve accumulation.

Paying interest on excess reserves increases market efficiency in normal conditions, so it should be ended now and restored later.

The Federal Reserve made a traditional error, an error repeated many times. They equated monetary expansion to the first-round effects on interest rates, exchange rates, and asset prices. They ignored any subsequent effects from growth of money and credit. A better policy would have expanded money and credit growth more and excess reserves less. That would have provided more stimulus and avoided the problem posed by more than \$2 trillion of excess reserves.

The Fed pays a quarter percent interest on bank excess reserves. Those earnings would go to the Treasury, thus the taxpayers, if the Fed did not pay interest on excess reserves. Instead domestic and foreign banks currently receive \$5 billion a year, and rising.¹

The Fed's balance sheet has more than \$2 trillion of excess reserves currently. At best, it will take years to bring its balance sheet back to the former low level of excess reserves. A proper policy would announce a strategy and implement it. If a new recession comes, the strategy would adjust; it will take a long-term strategy, a rule-like policy, to unwind the massive accumulation of excess reserves. I find no reason for making the decision about a long-term problem depend on the moving monthly unemployment rates.

The idle excess reserves remain a threat to future inflation, not current inflation. Currently the large bank excess reserves are one source of another problem—the slow growth of bank lending during this recovery.

In a typical postwar recovery, banks lend to new businesses, to small businesses, first-time home-buyers, and other high-risk borrowers. Current low rates make such loans unprofitable. Raising rates enough to cover expected losses would invite criticism or worse from the new consumer credit agency. Lending on risky mortgages would increase foreclosures. Banks can earn a quarter percent risk-free by holding excess reserve. Many have repaired their capital position, paid dividends and bonuses using earnings from excess reserves. The payments by the Fed to domestic and foreign banks would be paid to the Treasury, reducing the budget deficit, if the Fed reduced the interest rate on excess reserve to zero.

Low interest rates encourage borrowing, but they also discourage lending to risky borrowers. Instead of holding more excess reserves, banks would lend to new and other risky

¹ I recognize that in a more normal economy, payment of interest on excess reserves increases market efficiency.

borrowers at rates that covered expected losses. With the current hostility toward banks and the new consumer credit regulator, raising interest rates for small borrowers would invite criticism and regulation. The banks avoided the criticism.

Some point to revived housing and auto markets. At the time this is written, there is no evidence of a substantial increase in mortgage loans to the public. Existing houses are purchased mainly by real estate investment companies and speculators, not principally by individuals. That's an unusual and risky housing recovery.

Auto loans are an exception. I conjecture that default risk is mitigated by the banks' ability to repossess autos if owners default. That option is less valuable for mortgage loans that default given experience in the recent past with mortgage foreclosures.

Another problem with recent monetary policy is that it relied excessively on credit allocation, especially mortgage purchases (Goodfriend 2012). And the Fed failed to recognize that the slow recovery was not principally a monetary problem that they could solve. It was mainly the result of real problems, an anti-business, pro-tax-increase, and heavy-regulation policy.

To sum up, the four main reasons for sluggish response to massive reserve growth are:

- The US economic problems are mainly real, not monetary.
- The Federal Reserve has not adopted and announced a strategy, based on a policy rule that increases confidence.
- Most of the additions to bank reserves sit idle as excess reserves. Paying interest on excess reserves and privatize regulation discourages lending.
- Credit allocation is an ineffective way to generate economic expansion.

The Expansion in Perspective

Only one other recovery in US history was a slow recovery with unemployment rates that remained far above full employment levels or even the level reached at the previous peak. After winning re-election in 1936, President Roosevelt adopted policies, and took actions, that businesses regarded as hostile.

Hostility toward business shows in the slow increase in business investment after 1937 and 2008. Investment is the weakest part of both recoveries. Table 1 shows the available data.

Table 1 uses data that are close to comparable for the two periods; identical series are not available. I would prefer to use real values of investment, but real investment is not available for a comparable series in 1937-41 in the source data. Fortunately prices are relatively stable in both periods.

PLACE TABLE 1 ABOUT HERE

In both periods, investment and employment rose slowly. In 2012 both investment and employment are below their previous peaks in 2007. War mobilization and changed economic policy enabled employment to rise above both 1929 and its 1937 peak by 1940. Investment did not pass both peaks until 1941.

Table 1

Investment and Employment in Two Slow Recoveries

Year	1937-41		Year	2008-12	
	Gross Private Domestic Investment^a	Total Wage and Salary Workers^b		Private Fixed Investment^c	Total Private Employment^d
1937	11.8	31,026	2008	2128.7	114,342
1938	6.5	29,209	2009	1703.5	108,321
1939	9.3	30,618	2010	1679.0	107,427
1940	13.1	32,376	2011	1818.3	109,411
1941	17.9	36,554	2012	2000.9	111,826

a/in billions. Economic Report, January 1967, p. 225

b/in thousands. Economic Report, January 1967, p. 242

c/in billions. Economic Report, March 2013, p. 346

d/in thousands. Economic Report, March 2013, p. 378

Source: Economic Report of the President, 1967 and 2013, Chair of the Council of Economic Advisers

After his 1936 re-election, President Roosevelt’s policies became more populist. His failed effort to “pack” the Supreme Court is well-known. Other actions included an active anti-trust policy by the Justice Department, a Temporary National Economic Commission very critical of business practices, an excess profits tax, and increased regulation including a minimum wage. The administration did not intervene to stop the auto workers union from occupying General Motors buildings, a violation of property rights. Investment and employment

growth reflect the belief that the administration had an anti-business orientation. When the president called businessmen “economic royalists” in a speech, these concerns grew and uncertainty, the enemy of investment, rose.

Populism ended with the start of re-armament and war. The hostile rhetoric ended. President Roosevelt appointed two leading Republicans to his cabinet as secretaries of war and navy. Soon after, he appointed the head of General Motors to supervise production for war. Business responded by investing, expanding, and hiring. Patriotism overcame populism.

In the current slow recovery from the Great Recession, the Bush administration started fiscal expansion by increasing spending in its last year in office. The Obama administration added more than \$800 billion of additional spending. It claimed that the economy was in dire need of substantial stimulus. With great fanfare, it announced spending for state and local governments, project-ready construction, food stamps, and much else.

The program was based on a simplistic Keynesian belief that any deficit-financed spending in recession adds to output and employment. This is a mistake. Following a decade of limited benefit in Japan, years of trillion-dollar annual US deficits have generated a small response here. Proponents have been left to claim that much worse results were avoided, a proposition that may be true but is hard to support with evidence. A more useful criticism would compare the administration’s policy to the tax reduction and increased defense spending of the early 1980s. Following that policy produced substantially greater growth in GDP, as shown in table 2. I will return to reasons for the weak response to the 2009 fiscal program.²

Table 2 shows real GDP growth in the first two years after the trough in several postwar periods and after the Great Depression of 1929-32.

PLACE TABLE 2 ABOUT HERE

Table 2

GDP Growth after Recessions

Year	Annual GDP Growth	Year	Annual GDP Growth
2011	0.6	1983	4.5

² A large number of studies estimate the response to government spending. Some report a multiplier greater than one. Others find it is less than one. There is no consensus eighty years after the *General Theory*.

2012	3.1	1984	7.2
1972	5.6	1933*	13.5
1973	5.9	1934*	7.6

*Balke Gordon quarterly data from first quarter.

Source: Economic Report of the President, 2011 and 2013, Chair of the Council of Economic Advisers

The data reinforce the point made many times. The recovery is sluggish compared to either the recovery following the Great Depression or the recoveries during some earlier postwar recessions.

Alesina (2009) and his co-authors showed that the most effective stimulus programs reduce tax rates. Expenditure increases are much less potent and less reliable. As for President Obama’s favored tax increases, they have depressing effects.

Research by President Obama’s first chair of the council showed that tax increases slowed growth by 3 percentage points for each 1 percentage point increase in tax rates (Romer and Romer 2010). Many other studies support the conclusion that fiscal stimulus was poorly designed. Other problems with fiscal policy programs are discussed below.

The most important development of macroeconomic research of the past several decades is the integration of expectations into dynamic macro models. Without accepting that rational expectations apply equally to all markets, most economists now accept that expectations of future costs and benefits are a critical part of the response to policy actions. Did it not occur to prominent administration economists that continued large deficits increased expected future tax rates? And didn’t they anticipate that taxing highest income earners would reduce saving and investment?

We know that the sustained growth of any economy comes from two sources, growth of the labor force and productivity growth. The first has slowed in most developed countries following the decline in the live birth rate after the postwar baby boom ended. The United States’ labor force growth has benefited from immigration, but that too has declined. Productivity growth results from the use of more productive capital and from increased labor efficiency. Productivity growth remained strong during 2009 and 2010. One result was lower demand for labor. Firms could satisfy sluggish demand growth by producing more per existing worker.

For the years 2007-12, lower, non-farm productivity growth is only 1.6 percent, a full percentage point less than 2000-07. For the manufacturing sector, the drop is much greater, a decline from 3.9 percent in 2000-07 to 1.8 percent in 2007-12.

Slower sustained or underlying growth rates affect producer expectations about the path to which the economy returns in a recovery. Lower expected growth and the threat of increased taxation reduce investment. Without doubt, investment growth has been slow in this recovery.

Porter and Rivkin (2012) asked 10,000 Harvard Business School alumni about decisions to locate plants. The respondents cited a complex US tax code, an ineffective political system, a weak public education system, poor macroeconomic policies, convoluted regulation, deteriorating infrastructure, and a lack of skilled labor as reasons for not investing in the United States. Most of the decisions were to move investment out of the United States.

The standard analysis of the speed of recovery is Friedman (1969). The speed at which our economy returns to its growth path increases with the depth of the preceding recession. This proposition implies that rates of recovery from the Great Recession should be faster than average, not slower than average. See also Bordo and Haubrich (2012). An explanation of the role of policy as a cause of the slow recovery is called for.

Fiscal Policy Mistakes

The more than \$800 billion fiscal expansion voted in 2009 is widely believed to have failed to restore economic growth. I believe the administration made several mistakes.

The first mistake was to give the Congress principal responsibility for the details of the spending program. Congress chose a package of changes that redistributed income, always a concern for Congress. For example, money was sent to the states to cover some of their budget deficits. State and local employees avoided layoffs. Payments went to teachers, police, and firemen. The recipients surely knew that their receipts were not a permanent subsidy. The administration forecast that the stimulus would create 640,000 jobs, of which 325,000 were teachers kept from layoffs.

Standard theory implies that the teachers would save as much of a temporary benefit as they could, spend as little as possible, expecting that layoffs would come when the transfer ended. That was what happened.

Another large part of the 2009 stimulus was for construction. The administration sent Vice President Biden to show their effort to get “ready projects” underway. Alas, when the president finally recognized that there were very few “ready projects” two years later, most of the money had not been spent.

The second mistake was neglect of productivity. In his very thorough book, *Money Well Spent?* Michael Grabell (2012), a journalist, reported on the overestimates, mistaken reports, and successes and failures of the stimulus program. Economists could not agree on the size of the economy’s response. Few, if any, recognized that the effectiveness of any spending program, private or public, depends on the productivity of the resources used. This point was made by Martin Bailey (1962) in a book widely used almost fifty years ago. The late Nobelist James Tobin, a prominent Keynesian economist, told me that he regarded Bailey’s book, though written at Chicago, as the best book on standard Keynesian economics. I agree. Alas, its influence declined. The role of productivity of resource use disappeared.

A third related mistake neglects the evidence from earlier recessions. The response to permanent tax reduction is a persistent change in incomes of households and business. The strong response to the Reagan tax cuts and defense spending increased productivity in the use of resources, so the stimulus was strong.

Critics point out that the Clinton tax increases were followed by a sustained expansion. I believe this mistakes the tax increases with the balanced budget that followed. A federal balanced budget is rare. Since 1930 only two presidents, Eisenhower and Clinton, achieved balanced budgets in two consecutive years or longer. Budget balance signals that future tax increases are unlikely. Because the economy grows, sustained budget balance makes expected future tax reduction more likely. Lower expected rates increase investment.

Fourth, the proponents of deficit spending also err by neglecting the expected future tax increases required to reduce the deficit. There may have been a time when the public believed that government spending would increase income enough to generate revenue to balance the budget. Many have learned from more than eighty years of deficits in many countries not to believe that outcome. Large deficits, especially deficits that finance low productivity spending, encourage the belief that future tax rates will increase. This lowers further the response to fiscal stimulus.

Administration policy increased costs and uncertainty about returns to investment especially. The Porter and Rivkin data, cited earlier, confirm this. Monetary stimulus cannot offset these burdens. They are real.

Start with President Obama's repeated demands for higher tax rates on incomes over \$250,000 and more recently his request for limits on the amounts that can be saved in 401 retirement plans. It is not surprising that investment lags badly in this recovery. These taxes would fall most heavily on the country's largest savers. No one should expect President Obama to sign a deficit reduction bill that doesn't include more revenue. Will there be an agreement? How much would taxes increase? Uncertainties of this kind are real also.

Next look at the direct effects of the Affordable Care Act on employment. Estimates of the increase in labor cost vary, but many businesses have reduced hours of work to shelter many of their employees from the costs imposed by the act. In recent data, the number of new full-time jobs is dwarfed by part-time jobs. And employers hire fewer workers. The Environmental Protection Agency raises energy costs. The National Labor Relations Board tries to strengthen unions. Businesses see these efforts as cost increases that slow investment, growth, and employment. And they increase uncertainty.

The large budget deficit and uncertainty about future tax rates leave open the size of after-tax returns to new investment. Actions that increase labor costs shift remaining investment demand toward robotics and other labor substitutes, reducing employment demand.

If Congress agreed to the tax increase on upper incomes, uncertainty would be lower but the expected return to capital would be lower also. Firms respond to the current uncertainty by holding multibillions of cash assets. The high tax rate on repatriating earnings leaves many of the earnings abroad.

There is general agreement that future deficits are unsustainable. Neither presidents nor Congress have adopted a plan to control spending or pay for it. Serious proposals by President Obama's deficit commission, or by Congressman Paul Ryan, are not adopted and not even seriously considered. These failures of government are a major source of uncertainty about our future.

Administration policy is not the only real problem. Export demand is held back by the faltering European economy. Increased regulation adds to costs and uncertainty of future returns. Slower growth in China lowers real demand as well. We have an enormous foreign

debt. The only way we can service that debt is by increasing exports and reducing imports. Shale gas is a great help, if the EPA doesn't prevent drilling by increasing costs. More uncertainty.

Better Policy Programs

To improve results, the Federal Reserve should commit to a rule or quasi-rule such as the Taylor rule that aims at both reduced unemployment (or relatively stable output growth) and expected inflation. The rule incorporates the dual mandate that Congress approved and that the public seems willing to support. When the Federal Reserve followed it closely from 1985 to 2002, it produced the longest period of relatively stable growth with low inflation and short, mild recessions in Federal Reserve history.

The Federal Reserve should use models that include credit, money, and assets. See Brunner and Meltzer (1993), Meltzer (1995), Taylor (1995), and Tobin (1969). The central problem of stability requires that policy acts in a way that induces the public to hold money, bonds, and real capital at equilibrium values consistent with stable output growth and low inflation. As in Issing (2005), it should use annual monetary growth as a second monetary pillar.³

Adopting a rule is a first step. The next step is to strengthen incentives to follow the rule. The Federal Reserve has much more authority than accountability. Neither Governor Harrison nor the Federal Reserve Board were fired for causing the Great Depression, but President Hoover, Secretary Mellon, and many members of Congress lost their positions. Arthur Burns and the Board of Governors were not fired, but President Carter and many members of Congress were.

To increase accountability, the Federal Reserve should announce an objective, the combination of inflation and unemployment rate or output growth rate that it expects to achieve over several years, most likely two or three. If it fails to achieve its objective, it must offer an explanation and submit resignations. The president can accept the explanation or the resignations. Several countries, starting with New Zealand, have adopted this arrangement. It

³ Issing and Wieland (2013, 432) wrote: "The most important reasons for the U.S. Federal Open Market Committee's disappointing performance during this period (the Great Inflation) can be seen in the continuation of a discretionary monetary policy ..."

has not produced resignations, to my knowledge, but it has enhanced incentives to concentrate on medium-term objectives.

A peculiarity of the emphasis given to current and near-term events is that monetary policy operates with a lag. Policy actions today cannot do much about output, employment, or inflation in the near term. No less important is that intense pressures to do something about current problems often induce the Fed to adopt current actions that make it more difficult to resolve long-term problems. Some current examples: how can the Federal Reserve reduce the trillions of excess reserves without increasing inflation and/or unemployment? Adding to excess reserves to respond to a current economic slowdown exacerbates the problem. Some propose higher inflation as a way of reducing unemployment and the value of our enormous debt. This again either presumes a persistent trade-off, contrary to 1970s and 1980s experiences, or it postpones the return to stability.

Excessive attention to short-term changes neglects the distinction between permanent and temporary changes that is central to standard economic analysis. Several examples of recent neglect of this distinction are available:

- The claim that growth slowed in the summer of 2010 and deflation and recession would follow misled the Federal Reserve. By early autumn, these forecasts and conjectures proved incorrect. The Federal Reserve eased. Most of the additional reserves added to excess reserves.
- In the exceptionally warm winter of 2012, US economic growth rose. There was no way to know for months whether the improvement was a temporary response to a mild winter or a persistent improvement. By late spring, it was clear that the increased expansion was temporary.
- Federal Reserve officials discuss publicly whether and when they should end QE. Removing more than \$2 trillion of excess reserves will take years of applying a consistent strategy. Why does it matter whether the start occurs with an unemployment rate of 7.5 percent or 7.0 percent, or some other non-recession number?

These examples can be extended almost endlessly.

A common response to my concern about future inflation is that future inflation is not a problem because the Federal Reserve can always raise its interest rate enough to slow inflation. In principle, this is certainly true. But practice, I fear, is different. Business, labor, and members

of Congress are not indifferent about the level of interest rates. When the 1921 Board allowed rates to rise above 6 percent, Congress discussed curtailing its authority. I claim in my history that was a major reason why the Board resisted raising the discount rate in 1928-29 before the depression. Secretary Morgenthau in the 1930s was often alarmed and threatening if interest rates rose by even small amounts. After World War II, the Federal Reserve would not end wartime-pegged long rates until it gained the support of some influential members of Congress, especially Senator Paul Douglas. And more than thirty members of the Senate sponsored legislation in summer 1982 to force Paul Volcker's FOMC to reduce interest rates.

The Federal Reserve has reason to be concerned about congressional intervention. Legislative threats are common. Between 1973 and 2010, members of Congress introduced 1,575 bills in the House and 728 bills in the Senate. About 75 percent die without further action [Hess and Shelton 2012]. No one knows whether one will gather support.⁴

In its first one hundred years, the Federal Reserve has never announced a lender-of-last-resort policy. Every banking crisis brings some actions, but there is never an announced rule. Bagehot's famous criticism of the Bank of England's policy did not fault its actions. Bagehot's ([1873] 1926) criticism was that the Bank did not announce its policy in advance. My proposals for financial stability remove the nearly four hundred regulations in the Dodd-Frank law and adopt four rules:

1. A clearly stated rule governing the lender of last resort. Bagehot's rule, lend freely against good collateral at a penalty rate, remains appropriate.
2. Protect the payments system, not the bank, banks, or bankers.
3. By implementing the first two rules, prevent the problem from spreading to other banks and financial institutions.
4. Require regulated large banks to hold at least 15 percent equity capital against all assets.

When these rules were in force, they prevented bank crises.

Bagehot's criticism of the Bank of England applies to the Federal Reserve. By announcing and following a policy rule, the Federal Reserve would notify banks about what it will and will not do. It gives them an incentive to hold collateral acceptable for discount at the Reserve Banks. It reduces uncertainty, surely a gain during crises. It also reduces the expected

⁴ The Federal Reserve should act to restore independence. See especially Calomiris (2013).

gain from failing banks asking Congress to press the Federal Reserve or others for bailouts. And if banks follow the rule by holding collateral and larger equity reserves, fewer fail.

A policy rule for too-big-to-fail should not be the main way to prevent failures. Far more important is a rule that prevents most failures. Congress should enact equity capital standards for banks. I propose that beyond some minimum size, equity capital requirements should increase with asset size up to a maximum of 20 percent of assets. Losses would be borne by stockholders. The Federal Reserve and other regulators would monitor capital requirements. Outside auditors would certify that the requirements are met. Equity capital of 15 to 20 percent would restore capital for large banks to where it was in the 1920s (Meltzer 2012).

Equity reserves should replace much regulation of asset portfolios. We learned that in the period well before the mortgage and financial market collapse that hundreds of federal regulators observed portfolio decisions at all the major banks without opposing any. Banks evaded risk-based capital requirements by putting risk assets in separate entities. Regulators permitted the evasion. There are many additional examples of forbearance and evasion. Equity reserves on all bank assets would be a more effective way of enforcing prudent lending.

One further recommendation applies to money market funds. They exist only because the Federal Reserve and Congress maintained ceiling rates for bank time deposits during years of rising inflation. These are mutual funds that have a special privilege. When prices of their asset portfolio would require them to pay less than one dollar per dollar of nominal deposits, they do not mark deposits to market. They use the dollar price. This rule is inconsistent with the mark-to-market requirement of all other mutual funds. Partially repealing the rule is a step in the right direction. It should be repealed for all deposits, not just business deposits.

Conclusion

The slow recovery from the Great Recession results from the mistaken policies and anti-business rhetoric of the administration. That rhetoric adds to the real source of slow growth by increasing uncertainty and threatening to increase tax rates and regulations on investors.

The Federal Reserve cannot have a lasting effect on real, non-monetary causes of low demand growth. And it reduces its short-term responses by encouraging growth of idle excess reserves.

No less disturbing are the failures of economists serving in policy positions to publicly and seemingly privately fail to explain to administration officials including the president that, whatever beliefs one holds about regulation and the distribution of income, administration rhetoric and policy actions are a major reason for slow growth.

Two observations can only be suggestive, but the only previous slow recovery, from the 1937-38 recession, shows very similar responses of investment and employment. That time the economist Jacob Viner, a Treasury adviser, to his credit, delivered the message to President Roosevelt. We should not expect less professionalism now.

References

- Alesina, Alberto, and Ardagna, Silvia. 2009. "Large Changes in Fiscal Policy: Taxes versus Spending." National Bureau of Economic Research Working Paper 15438.
- Bagehot, Walter. (1873) 1962. *Lombard Street: A Description of the Money Market*. Homewood, IL: Richard D. Irwin Inc.
- Bailey, Martin. 1962. *National Income and the Price Level*. New York: McGraw-Hill.
- Bordo, Michael, and Joseph Haubrich. 2012. "Deep Recessions, Fast Recoveries, and Financial Crises: Evidence from the American Record." National Bureau of Economic Research Working Paper 18194.
- Brunner, Karl, and Allan H. Meltzer. 1968. "Liquidity Traps for Money, Bank Credit, and Interest Rates." *Journal of Political Economy* 76 (1).
- Brunner, Karl, and Allan H. Meltzer. 1993. *Money and the Economy: Issues in Monetary Analysis*. Cambridge, UK: Cambridge University Press.
- Calomiris, Charles. 2013. "How to Promote Fed Independence: Perspectives from Political Economy and US History." Working paper copied at Columbia University.
- Friedman, Milton. 1969. "The Monetary Studies of the National Bureau." In *The Optimum Quantity of Money and Other Essays*, chapter 12. Chicago: Aldine.
- Goodfriend, Marvin. 2012. "The Elusive Promise of Independent Central Banking." Keynote lecture, Institute for Monetary and Economic Studies, Bank of Japan.
- Grabell, Michael. 2012. *Money Well Spent? The Truth Behind the Trillion-Dollar Stimulus, the Biggest Economic Recovery Plan in History*. New York: Public Affairs.
- Hess, Gregory D., and Cameron A. Shelton. 2012. "Congress and the Federal Reserve." Claremont McKenna College working paper.
- Issing, Otmar. 2005. "Why Did the Great Inflation Not Happen in Germany?" *Federal Reserve Bank of St. Louis Review* 87 (2): 329-35.
- Issing, Otmar, and Volker Wieland. 2013. "Monetary Theory and Monetary Policy: Reflections on the Development over the Last 150 Years." *Jahrbucher fuer Nationaloekonomie und Statistik* 233 (3): 423-45.
- Meltzer, Allan H. 1995. "Monetary, Credit, and (Other) Transmission Processes: A Monetarist Perspective." *Journal of Economic Perspectives* 9 (4): 49-72.
- Meltzer, Allan H. 2009. *A History of the Federal Reserve, Vol. 2, Book 2: 1970-1986*. Chicago: University of Chicago Press.
- Meltzer, Allan H. 2012. "More Regulation Is Not the Answer." Testimony before the House Financial Services Committee, June 6.
- Porter, Michael, and Jan Rivkin. 2012. "Choosing the United States." *Harvard Business Review* 90 (3): 80-91.
- Romer, Christina D., and Romer, David H. 2010. "The Macroeconomic Effects of Tax Changes: Estimates Based on a New Measure of Fiscal Shocks." *American Economic Review* 100 (3): 763-801.

- Taylor, John B. 1995. "The Monetary Transmission Mechanism: An Empirical Framework." *Journal of Economic Perspectives* 9 (4): 11-26.
- Tobin, James. 1969. "A General Equilibrium Approach to Monetary Theory." *Journal of Money, Credit, and Banking* 1 (1): 15-29.
- Volcker, Paul A. 2013. "Central Banking at a Crossroad." Copied from the *Economic Club of New York*, May 29.

Figure 1

