

THE STABILITY OF THE U.S. ECONOMY

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Abstract

This paper evaluates some evidence showing that the U.S. economy was as stable in the 1886-1916 period as it was in the 1948-1984 period. However, the period from about 1985 until the recent recession was more stable than the 1948-1984 period. Much of the instability in the U.S. economy can be attributed to Federal Reserve policy. Many economists now believe the evidence supports the idea that the Federal Reserve by allowing the money supply to fall by about one-third from 1929-1933 was a major contributor to the Great Depression. The easy money policy of the Federal Reserve also greatly contributed to the recent recession. In addition, the recent recession was made worse due to government support and encouragement of unsound real estate lending practices. Current evidence suggests that much of the current unemployment is of a cyclical nature and could be reduced more by permanent tax cuts rather than an increase in government spending.

Introduction

The U.S. economy recently experienced the worst recession since WWII. According to the National Bureau of Economic Research, the recession started in December 2007 and ended in June 2009. Unemployment has remained stubbornly high as the economy has slowly recovered from the recession. The current unemployment rate is 9.8% (November 2010).

Until the recent recession, the U.S. economy had a record of remarkable stability. Many attribute this stability to good Federal Reserve policy. Others say we have been lucky. For example, oil prices were fairly stable until a few years ago. Since the service sector of the U.S. economy has been increasing, the unemployment rate has become more stable.

In the first part of the paper, we will review some of the empirical evidence on the historical stability of the U.S. economy. For instance, we will review some of Christina Romer's papers dealing with the stability of the U.S. economy. When Romer adjusted some of the macroeconomic variables and made the data more consistent for comparable purposes, she found very little evidence of improved stability in the U.S. economy until recently.

The second part of the paper will consider the macroeconomic policy implications of the lack of improvement in the U.S. economy until the recent period from about 1985 until the recent recession. We will present some information that will show that monetary policy has had a lot to do with the outcome. In addition, some recommendations for future macroeconomic policy are given. The paper will end with some concluding remarks.

Historical Observations

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Christina Romer (1986, 1999) presented some provocative results in a couple of papers that evaluated the historical stability of the U.S. economy. When she adjusted the data for the pre-WWI period (1886-1916) to make it more comparable to post-WWII data (1948-1997), she found very little difference in stability between the pre-WWI period and the post-WWII period. Of course, the period surrounding the Great Depression was more variable. Romer's evidence is presented in Table 1.

TABLE 1
Standard Deviation of Percentage Changes

| Series | 1886-1916 | 1929-1940 | 1948-1997 |
|-----------------------|-----------|-----------|-----------|
| Industrial Production | 6.2% | 16.0% | 5.0% |
| GNP | 3.0 | 7.1 | 2.5 |
| Commodity Output | 5.2 | 9.0 | 4.9 |
| Unemployment Rate | 1.4 | | 1.1 |

Source: Christina Romer (1999, p. 27)

As indicated in Table 1, there is not much difference in volatility between the pre-WWI U.S. economy (1886-1916) and the post-WWII U.S. economy (1948-1997). However, the post-WWII period is slightly more stable.

Romer also separates the post-WWII era into two distinct periods, the 1948-1984 period and the 1985-1997 period. As Table 2 indicates, the 1985-1997 period was more stable than the 1948-1984 period. See Table 2 below. In a recent macroeconomic textbook, Abel, Bernanke, and Croushore (p. 281) had this to say about Romer's research on U.S. economic stability over time. "Romer's arguments sparked additional research, though none proved decisively whether volatility truly declined after 1929."

TABLE 2
Standard Deviation of Percentage Change

| Series | 1948-1984 | 1985-1997 |
|-----------------------|-----------|-----------|
| Industrial Production | 5.7% | 2.2% |
| GNP | 2.8 | 1.3 |
| Commodity Output | 5.3 | 3.6 |
| Unemployment Rate | 1.2 | 0.6 |

Source: Christina Romer (1999, p. 29)

Table 3 below contains data from Table 1 and Table 2. Since the U.S. economy became more stable after 1985, it would be more consistent to compare stability in the pre-WWI U.S. economy with the stability of the post-WWII U.S. economy using the 1948-1984 period. The increased stability of the U.S. economy in the 1985-2008 period will be considered in more detail later on.

TABLE 3
Standard Deviation of Percentage Change

| Series | 1886-1916 | 1948-1984 |
|-----------------------|-----------|-----------|
| Industrial Production | 6.2% | 5.7% |
| GNP | 3.0 | 2.8 |
| Commodity Output | 5.2 | 5.3 |
| Unemployment Rate | 1.4 | 1.2 |

Source: Tables 1 and 2

Using the data in Table 3, some statistical test of significance will be calculated. The statistical tests concerning the difference between variances will be used. The null hypothesis, H_0 , is that the variances of the two series (pre-WWI and post-WWII) are the same: $\sigma_A^2 = \sigma_B^2$ or $\sigma_A^2/\sigma_B^2 = 1$. The alternative hypothesis, H_A , is that $\sigma_A^2 > \sigma_B^2$ or $\sigma_A^2/\sigma_B^2 > 1$. In this application σ_A^2 is the variance for the pre-WWI series and σ_B^2 is the variance of the post-WWII series.

Since we are assuming independent random samples from a normal population, the F distribution can be used. Table 4 presents the results of the statistical tests. In all cases, the null hypothesis cannot be rejected with a one-tail test of significance. Based on the macroeconomic variables tested with Romer's data, the pre-WWI and post WWII U.S. economy were similar in variability.

TABLE 4
Statistical Tests of the Pre-WWI and Post WWII Data

| | Ratio of Variances Pre-WWI Variance/Post WWII Variance |
|-----------------------|---|
| Industrial Production | 1.183 |
| GNP | 1.148 |
| Commodity Output | 1.039 |
| Unemployment Rate | 1.361 |

The F-Value for the 10% level of significance is 1.563 for a one-tail test. Since all the calculated F-Values (the ratio of variances) are less than the 10% F-Value, the null hypothesis cannot be rejected at the 10% level of significance. *With commodity output, post-World War II Variance/Pre-World War I Variance. The F-Value for the .5% level of significance is 2.475.

Table 5 below shows the variability of some macroeconomic variables in the post-WWII period. Post-WWII, following Romer, is divided into the 1948-1984 period and the 1985-2008 period. The 1985-2008 period is more stable.

TABLE 5
Standard Deviation of Percentage Changes

| Series | 1948-1984 | 1985-2008 |
|-----------------------|-----------|-----------|
| Industrial Production | .989% | .697% |
| GNP | 2.818 | 1.181 |
| Unemployment Rate | 1.747 | .987 |
| Consumer Price Index | .419 | .323 |

Annual data was used for real GNP. The others used monthly data that goes through January 09. The source of the data is Federal Reserve Economic Data, Federal Reserve Bank of St. Louis, 2009.

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Some similar tests of significance were calculated for the data in Table 5. Table 6 presents the results of these tests. In all cases, the alternative hypothesis was accepted at a high level of significance. The 1985-2008 period was more stable than the 1948-1984 period. Another factor that indicates greater stability in the 1985-2008 period was the incidence of recessions. The U.S. economy was in a recession about 33% of time from 1969-1982. From 1983-2006, the U.S. was in a recession only about 6% of the time (Gwartney, Stroup, Sobel, & Macpherson [GSSM], p. 327). When we weigh the results of this analysis, some questions come to mind. For instance, why was the post WWII period from 1948-1984 not more stable than the pre-WWI period from 1886-1916? What happened to make the economy more stable from around 1985 until the current recession?

TABLE 6
Statistical Tests of the Post-WWII Data

| Series | Ratio of Variances (1948-1984 period/1984-2009 Period) |
|-----------------------|---|
| Industrial Production | 2.018# |
| GNP | 5.386& |
| Unemployment Rate | 3.1303# |
| Consumer Price Index | 1.683# |

#1.323 is the F-Table value for the .5% level of significance for Industrial Production, Unemployment Rate, and the Consumer Price Index & for GNP, the .5% level of significance is an F-Table value equal to 2.845.

Romer (1999, pp. 38 – 42) states that the Federal Reserve had a lot to do with the instability in the 1948 – 1984 period with its policy induced recessions. However, starting with Paul Volker in 1979 and continuing with Alan Greenspan and Ben Bernanke, the Federal Reserve pursued a policy designed to control inflation. To borrow a phrase from Romer (1999, p. 43), the Federal Reserve appeared to have a “steadier hand on the macroeconomic tiller” during this period.

After the Great Depression, a greater role for the Federal Government was deemed necessary to stabilize the U.S. economy, since the free-enterprise system appeared to be seriously flawed. After WWII, Keynesian economics was adopted by many of the developed countries including the United States. Keynesians were convinced that fiscal policy—government taxing and spending policies—could be used to stabilize the economy at full employment with reasonable inflation.

Keynesians initially did not have much faith in monetary policy. After all, an easy money policy had lowered interest rates to about zero during the Great Depression without stimulating the economy. It took several years to correct this error in judgment. As Professor Milton Friedman (2006, p. 96) has stated:

Keynes offered simultaneously an explanation for the presumed impotence of monetary policy to stem the depression, a nonmonetary interpretation of the depression, and an alternative to monetary policy for meeting the depression. His offering was avidly accepted. If liquidity preference is absolute or nearly so—as Keynes believed likely in times of heavy unemployment—interest rates cannot be lowered by monetary measures. If investment and consumption are little affected by interest rates—as Hansen and many of Keynes’ other American disciples came to believe—lower interest rates, even if they could be achieved, would do little

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good. Monetary policy was twice dammed. The contraction, set in train on this view by a collapse of investment or by a shortage of investment opportunities or by stubborn thriftiness, could not, it was argued, have been stopped by monetary measures. But there was available an alternative – fiscal policy. Government spending could make up for insufficient private investment. Tax reductions could undermine stubborn thriftiness.

Friedman and Schwartz great volume on monetary history (1963) did much to restore the importance of monetary policy. Again, to quote Professor Friedman (2006, p. 97):

The revival of belief in the potency of monetary policy was fostered also by a re-evaluation of the role money played from 1929 to 1933. Keynes and most other economists of the time believed that the Great Depression in the United States occurred despite aggressive expansionary policies by the monetary authorities—that they did their best but their best was not good enough. Recent studies have demonstrated that the facts are precisely the reverse: the U.S. monetary authorities followed highly deflationary policies. The quantity of money in the United States fell by one-third in the course of the contraction. And it fell not because there were no willing borrowers—not because the horse would not drink. It fell because the Federal Reserve System forced or permitted a sharp reduction in the monetary base, because it failed to exercise the responsibilities assigned to it in the Federal Reserve Act to provide liquidity to the banking system. The Great Contraction is tragic testimony to the power of monetary policy—not as Keynes and so many of his contemporaries believed, evidence of impotence.

Recently, Christina Romer reinforced what Friedman and Schwartz had to say with this comment (Parker, 2007, p. 127): “Monetary contraction was the fundamental cause of the Great Depression. The Federal Reserve chose to do nothing in response to widespread financial panic.”

It is interesting how some of the pro-Keynesian principles of economics textbooks have changed over the years concerning the importance of monetary policy. For instance, McConnell had this to say in 1981 (p. 332):

For two reasons, Keynesians are especially enamored of fiscal policy. First, for reasons to be specified later, they believe it is a much more powerful stabilizing tool than is monetary policy. Second, fiscal policy—the manipulation of taxes and government spending—can also be used to achieve microeconomic goals in the areas of resource allocation and income distribution which Keynesians think are desirable and meritorious in their own right.

In the 2008 edition of the same text, McConnell and Brue made these statements (pp. 218, 274):

Most economists believe fiscal policy remains an important, useful policy lever in the government’s macroeconomic tool kit. The current popular view is that fiscal policy can help push the economy in a particular direction but cannot fine-tune it to a precise macroeconomic outcome. Mainstream economists generally agree that monetary policy is the best month-to-month stabilization tool for the U.S. economy.

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Monetary policy has become the dominant component of U.S. national stabilization policy. It has two key advantages over fiscal policy: speed and flexibility and isolation from political pressure.

Samuelson and Nordhaus made the following comment in the current 19th edition of their text (2010, pp., 632-633):

Some early enthusiasts of the Keynesian approach believed that fiscal policy was like a knob they could turn to control or “fine-tune” the pace of the economy. A bigger budget deficit meant more stimulus for aggregate demand, which could lower unemployment and pull the economy out of recession. A budget surplus could slow down an overheated economy and dampen the threat of inflation. Few today hold such idealized view of fiscal policy. With many decades of practice, economies still experience recessions and inflations. Fiscal policy works better in theory than in practice. Moreover, monetary policy had become the preferred tool of moderating business-cycle swings.

Gwartney, Stroup, Sobel, and Macpherson (GSS&M), comment in their textbook that the Keynesian explanation of economic instability in the U.S. economy is no longer dominant. First, perverse economic policies such as the decline in the money supply in the 1930s were a major cause of the Great Depression (p. 231). Second, the occurrence of high inflation and unemployment in the 1970s reduced confidence in the Keynesian view, and third, the stability of the U.S. economy in the last 60 years has indicated that the market economy was more stable than the Keynesians thought it was (p. 232).

Macroeconomic Policy

As noted above, the absence of an expansionary monetary policy by the Federal Reserve during the Great Depression was a major contributing factor to the Great Depression. In addition, in the post WWII period from 1948—1984, the induced recessions caused by the Federal Reserve contributed to the greater instability in the 1948—1984 period relative to the period from 1985 until the current recession. In addition, as indicated in the previous comments, the evidence supports the proposition that we had greater stability in the U.S. economy from 1985 until the current recession because we had better monetary policy. As GSS&M (p. 327) have stated:

The public tends to credit, as well as blame, the president for the state of the economy. In contrast, economists would be more inclined to credit the recent stability to the Fed. In contrast to the 1970s, the Fed in recent years has focused on price stability. Under the leadership of chairs Paul Volker, Alan Greenspan, and Ben Bernanke, the Fed has avoided wide swings in the rate of inflation. In turn, the stable rates of inflation have enhanced the overall stability of the U.S. economy.

As it happened in the Great Depression, some individuals blame the recent severe recession on the failure of the free-enterprise system or capitalism. Therefore, we need to amend or repair the free-enterprise system. However, as Thomas Sowell noted in a recent book (2009), the government is to blame for many of the problems. The lack of proper control and management of its agencies or sponsored agencies created most of the problems. As Calomiris and Wallison have stated (2008): “. . . the vast accumulation of toxic mortgage debt that poisoned the global

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financial system was driven by the aggressive buying of subprime and Alt-A mortgages, and mortgage-backed securities, by Fannie Mae and Freddie Mac” The poor choices of these two government-sponsored enterprises (GSEs)—and their sponsors in Washington—are largely to blame for our current mess.” In a recent article (2009), Wallison states that “... almost two-thirds of all the bad mortgages in our financial system, many of which are now defaulting at unprecedented rates, were bought by government agencies or required by government regulation.”

The Great Depression is an era in which capitalism supposedly failed and needed massive government assistance to survive. However, most New Deal policies failed to help the economy to recover. Cole and Ohanian (2009) explain why the New Deal failed to ignite the U.S. economy:

Why wasn't the Depression followed by a vigorous recovery, like every other cycle? It should have been. The economic fundamentals that drive all expansions were very favorable during the New Deal. Productivity grew very rapidly after 1933, the price level was stable, real interest rates were low, and liquidity was plentiful. We have calculated on the basis of just productivity that employment and investment should have been back to normal by 1936. Similarly, Nobel Laureate Robert Lucas and Leonard Rapping calculated on the basis of just expansionary Federal Reserve policy that the economy should have been back to normal by 1935.

So what stopped a blockbuster recovery from ever starting? The New Deal. The New Deal policies certainly benefited the economy by establishing a basic social safety net through Social Security and unemployment benefits, and by stabilizing the financial system through deposit insurance and the Securities Exchange Commission. But others violated the most basic economic principles by suppressing competition, and setting prices and wages in many sectors well above normal levels. All told, these anti-market policies choked off powerful recovery forces that would have plausibly returned the economy back to trend by the mid-1930s.

Since the Federal Reserve was the primary contributor to the Great Depression by allowing the money supply to fall by about one-third, did the Federal Reserve contribute to the current recession? Professor John B. Taylor of Stanford believes the evidence supports this proposition (Wall Street Journal, 2009):

The classic explanation of financial crises is that they are caused by excesses—frequently monetary excesses – Which lead to a boom and an inevitable bust. This crisis was not different: A housing boom followed by a bust led to defaults, implosion of mortgages and mortgage-related securities at financial institutions, and resulting financial turmoil.

Monetary excesses were the main cause of the boom. The Fed held its target interest rate, especially in 2003-2005; well below known monetary guidelines that say what good policy should be based on historical experience. Keeping interest rates on the track that worked well in the past two decades, rather than keeping rates so low, would have prevented the boom and the bust. Researchers at the Organization for Economic Cooperation and Development have provided

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corroborating evidence from other countries: The greater the degree of monetary excess in a country, the larger the housing boom.

While Taylor makes a strong case that an easy monetary policy that kept interest rates lower than they should have been was a major factor causing the recent recession, it certainly was not the only contributing factor. As noted above, government involvement in the mortgage market encouraged unsound lending policies. In this regard, it is interesting to compare the housing market in the U.S. with the one in Canada over the same time period. Although both countries had similar monetary policies, Canada had far fewer mortgage defaults than the U.S. In addition, the Canadian government did not need to bail out any Canadian banks. The primary reason was that Canada had a much smaller subprime market than the U.S. (James MacGee).

In Canada, you do not have any government sponsored enterprises such as Fannie Mae and Freddie Mac that in essence guarantee mortgages. In addition, mortgage interest is not tax deductible. The mortgage market is also much friendlier to creditors. However, housing ownership in Canada is about the same as it is in the U.S. The reason is that Canada does support housing but in a more direct manner. As Alex J. Pollock has stated (2010):

It is important to recognize that Canada does have a government body to promote housing finance: the Canada Mortgage and Housing Corporation, which is the dominant credit insurer of mortgages in the country. Whether or not you like the idea of such a government financing operation, at least its status is perfectly clear and honest. The Canadian government owns 100% of its stock. Its guaranty from the government is explicit. It provides housing subsidies which are on the budget and must be appropriated.

Taylor notes that if the Fed had been following his monetary rule, the boom and bust in the U.S. housing market could have been avoided (Getting Off Tract, 2009, p. 5).

Taylor's rule can be expressed as follows (from Colander and Gamber, p.397):

$$\begin{aligned} \text{Fed funds rate} = & 2 + \text{current inflation} + .5(\text{actual inflation less desired inflation}) \\ & + .5(\text{percent deviation of aggregate output from potential}) \end{aligned}$$

For example if the current rate of inflation is 2 percent and this is equal to the desired rate, and if the economy is operating at its potential, the Federal funds rate should be 4 percent. The rule is a negative feedback rule. This means that if the rate of inflation exceeds the desired rate the funds rate should increase, and if the economy is operating less than its potential the funds rate should fall. The Federal Reserve seemed to follow Taylor's rule until the period of around 2002 to 2006 (Taylor, Getting Off Track, p. 3).

Gregory Mankiw in a recent macroeconomic textbook (2010, Chapter 14) presents a dynamic aggregate demand – aggregate supply model that uses the Taylor rule for monetary policy. This model shows that for inflation to be stable, the Federal Reserve must increase the nominal interest rate at a greater rate than the rate of inflation. This is called the Taylor principle. The coefficient for the inflation term in the Taylor rule must be greater than zero for inflation to be stable. It is .5 in the original rule. Using the work of Clarida, Gali, and Gertler (2000), Mankiw notes that during the Volker-Greenspan era the inflation coefficient was .75. This was very close

to the suggested .5 by Taylor. However, during the period 1960-1979 (pre-Volker era) the coefficient was -.14. Therefore, during the pre-Volker era, monetary policy did not agree with the Taylor rule. This indicates that inept monetary policy was the primary cause of the great inflation of the 1970s. Robert M. Billi in a current article (2009, p. 87) makes this comment about the Taylor rule from about 2001 through 2005:

With the benefit of hindsight, policy became increasingly too accommodative from 2001 onwards. The federal fund rate on average was 1.25 percentage points too low in 2001-2003 and 1.5 percentage points too low in 2004-2005. In short, the original and optimal Taylor rules essentially both conclude that U.S. monetary policy over most of this period was too accommodative.

The stimulus passed in early 2009 has been disappointing. The stimulus failed to bring unemployment down to a reasonable level. With the rapidly growing federal government debt and large deficits, government spending is growing too rapidly and needs to be brought under control.

According to the available evidence, most of the unemployment is cyclical in nature (Valetta and Krug, 2010). Therefore, if the growth rate in real GDP can be increased, unemployment should go down. Many economists believe the best way to do this is to reduce taxes (e.g., personal, corporate, dividends, and capital gains). This is also one of the recommendations of the deficit commission appointed by President Obama.

Several recent studies present evidence showing that permanent tax cuts are more stimulating than increases in government spending. For example, studies by Robert Barro, (2009, 2010), Alberto Alesina (2010), Christina Romer and David Romer (2010), John F. Cogan and John B. Taylor (2010), and Thomas F. Cooley and Lee E. Ohanian (2010) are a sample of the articles. Michael J. Boskin also discusses some of this research in a recent article (2010). Since these studies question the ability of increases in government spending to stimulate the economy, this implies that we should reduce government spending to fund some of the permanent tax cuts. If we can increase the growth rate of the economy, tax revenue should increase and the deficit can be reduced. Since more people will be employed, these individuals should be in a better position to make a house payment and afford housing, which should improve the housing market.

John Taylor on his January 14, 2011 Blog had a graph of the ratio of Gross Fixed Investment to GDP and Unemployment that has attracted a lot of attention. (See Figure 3 below.) The graph shows a high negative correlation between the two variables. This indicates that a good way to lower unemployment would be to encourage investment spending. Taylor answered some criticisms about the significance of this relationship in his Blog on March 31, and April 2, 2011. However, Taylor's position did not change that this was a valid relationship. Another interesting graph presented by Taylor (January 14, 2011) over the same time period shows the relationship between Government Purchases and Unemployment. (See Figure 1.) This relationship was statistically significant and positive indicating that reducing Government Purchases would not increase Unemployment as some had said it would. Taylor noted that he tested this relationship for reverse causation from high employment to more Government Purchases and found none. The authors also looked at this relationship from 1948Q1 to 2010Q4 and did not find a statistically significant relationship between the two variables. (See Figure 2.) Therefore, over a

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long period of time a negative relationship between the rate of Unemployment and Government Purchases did not exist. This type of empirical evidence supports the studies cited above that permanent tax cuts are better than government spending for reducing unemployment.

FIGURE 1

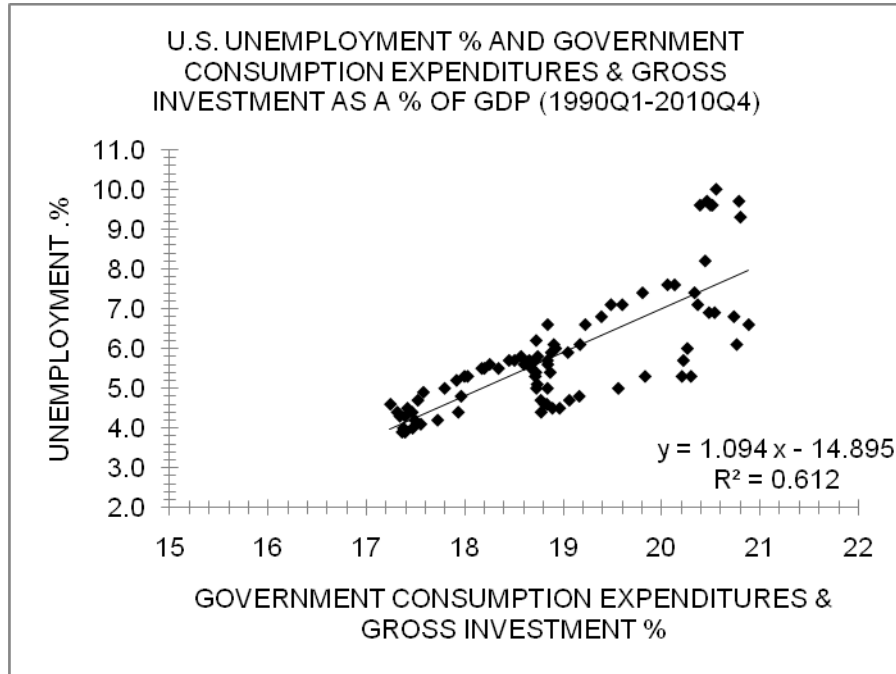


FIGURE 2

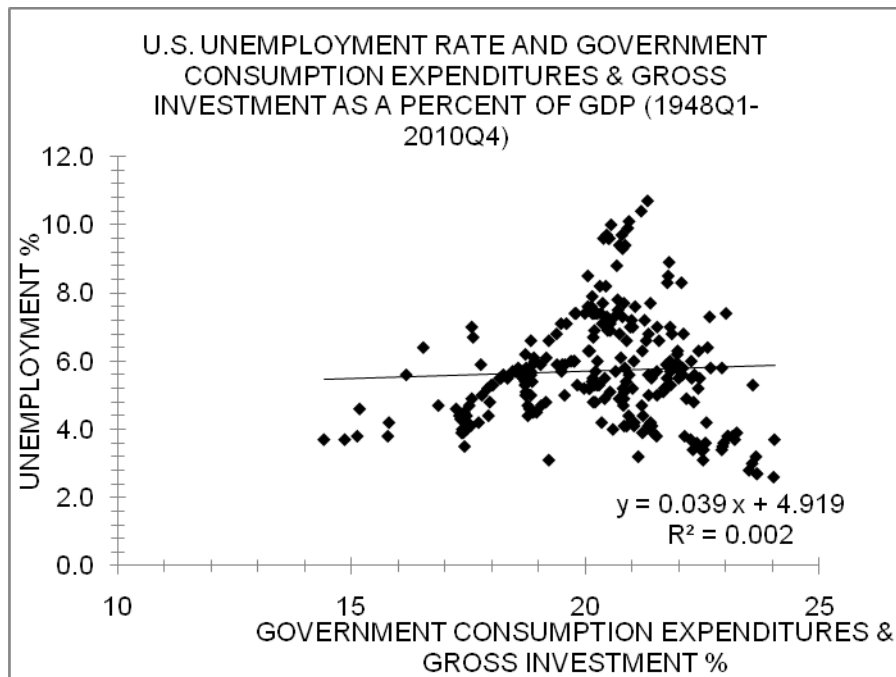


FIGURE 3



Concluding Remarks

What is so astonishing with Romer’s macroeconomic data is that the post-WWII U.S. economy was not more stable than the pre-WWI period until around 1985 to the current recession. As many Keynesians admitted, fiscal policy by itself did not deliver the goods. Monetary policy is the best tool for promoting stabilization in the U.S. economy. However, when monetary policy is not properly used, as in the Great Depression, the U.S. economy becomes more unstable.

The evidence presented in this paper shows that an easy Monetary policy from around 2002 through 2006 that allowed interest rates to stay too low was a major contributing factor to the recent recession. However, the recent recession was made more severe by a federal government policy that supported and encouraged unsound real estate lending practices. An excellent case can be made for following some form of Taylor’s rule when conducting monetary policy. The evidence presented here indicates that it could lead to greater stability in the U.S. economy. The current evidence reviewed in this paper makes a strong case that permanent cuts in taxes rather than increases in government spending would do a better job increasing the growth rate of real GDP in the U.S. economy.

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