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Long Term Economic & Financial Outlook

Executive Summary

The world economy is in the midst of the worst financial crisis since the 1930s. Understanding how the crisis came about and how it will end involves a clear understanding of some fundamental economic concepts. Such concepts are not widely understood. If they were, the current crisis would not have occurred.

Most observers recognize the proximate cause of the financial crisis. A speculative boom in housing activity produced far more homes than people wanted. The excess supply of homes led to a collapse in housing prices. The collapse in housing prices produced large losses for those who either directly or indirectly financed the housing boom.

What is not well understood is how government policies spread problems from the housing market to the rest of the economy. Central banks throughout the world and most notably the Federal Reserve played a key role in the economic collapse. Their mistakes are reminiscent of policy mistakes made during the Great Depression of the 1930s.

Other factors contributing to the crisis were actions taken by the Congress and the US Treasury. The government's response to financial problems has not only seriously damaged the economy this past year; it has also sown the seeds for serious problems in the years ahead.

Belatedly, the Federal Reserve has shifted to a policy of massive monetary ease. It is flooding the financial system with money. In spite of this move many observers, including those at the Fed, anticipate an extended period of weakness. Instead, the Fed's latest move will not only contain the recent collapse in spending, it will produce a surge in spending.

The lower interest rates, higher stock prices and increases in spending that accompany an economic recovery will be a welcome sign. Many will mistakenly attribute the improvement to government bailouts and fiscal policy stimulus. However, these government programs will not be the reason for the economic recovery. Such programs have an adverse impact on the economy. They retard rather than enhance growth and prosperity.

As it has done in the past, the Federal Reserve is likely to overdue its monetary stimulus. The surge in spending at some point in 2009 is likely to be stronger and last longer than the Fed intends. The combination of rapidly rising spending along with a reduced potential for real growth will send both inflation and interest rates sharply higher.

In his book, *In Our Hands*, Charles Murray highlights the inefficiencies and ineffectiveness of government policies for solving basic human problems. He predicts that as progressively more government spending produces progressively less satisfactory outcomes, there is likely to be a backlash. A growing consensus will come to realize that in spite of spending over a trillion dollars of our own money to help us, government ends up doing far more harm than good.

The massive increase in government spending this past year and the promise of even more reliance on government solutions in the year ahead should only hasten that realization. As reliance on government has seemingly spiraled out of control, the restructuring envisioned in Murray's plan provides the main hope for a more productive and prosperous future.

Introduction

Over two centuries ago, classical economists discovered the key to economic prosperity. Their discovery is as relevant today as it has been at any time during the past two centuries. The first section of this report discusses classical economic principles and how they impact our economy.

The second section deals with some basic issues surrounding real economic activity, spending, saving and the role of financial markets. These basic concepts were once clearly understood by economists. However, modern economic textbooks too often fail to discuss them. This failure has led to a great deal of confusion surrounding economics and the impact of various economic policies.

Once the distinction between the real economy and financial markets has been presented it's appropriate to deal with issues surrounding deficits, fiscal stimulus and the mega bailouts that play such an important role in the current crisis.

The next section deals with one of the most important and least understood aspects to the current financial crisis—the role of monetary policy. As it did during the 1930s, monetary policy has played a key role in the current financial crisis. Moreover, it will play an equally important role in shaping the next business cycle.

Following the discussion of monetary policy, bailouts and fiscal stimulus, the next section deals with the implications these policies are likely to have on growth, inflation, interest rates and stock prices in the years ahead.

A final topic deals with the limits of government and the potential to restructure the economy to rely more on individuals than government for solutions to basic problems.

Classical Economic Principles

The essence of economics involves the creation of prosperity. To create prosperity it's necessary to organize an economy in such a way as to encourage people to put together resources in the most efficient way possible to produce things that other people want. Over two centuries ago, classical economists led by Adam Smith discovered the key to economic prosperity. They stated that people would naturally tend to combine resources in the most efficient way possible to produce things that other people wanted so long as they had the right environment. And that environment consists of providing individuals with only four things—low tax rates, free markets, protection of individual property rights and a stable currency for transacting business. These are the four key classical principles for achieving economic success.

Throughout history governments that applied these principles found that their people prospered. The Founding Fathers used classical principles as the basis for organizing the US economy. China's dramatic shift from an impoverished nation to the second most powerful economy in the world came about when its leaders shifted policies in the direction of these classical principles.

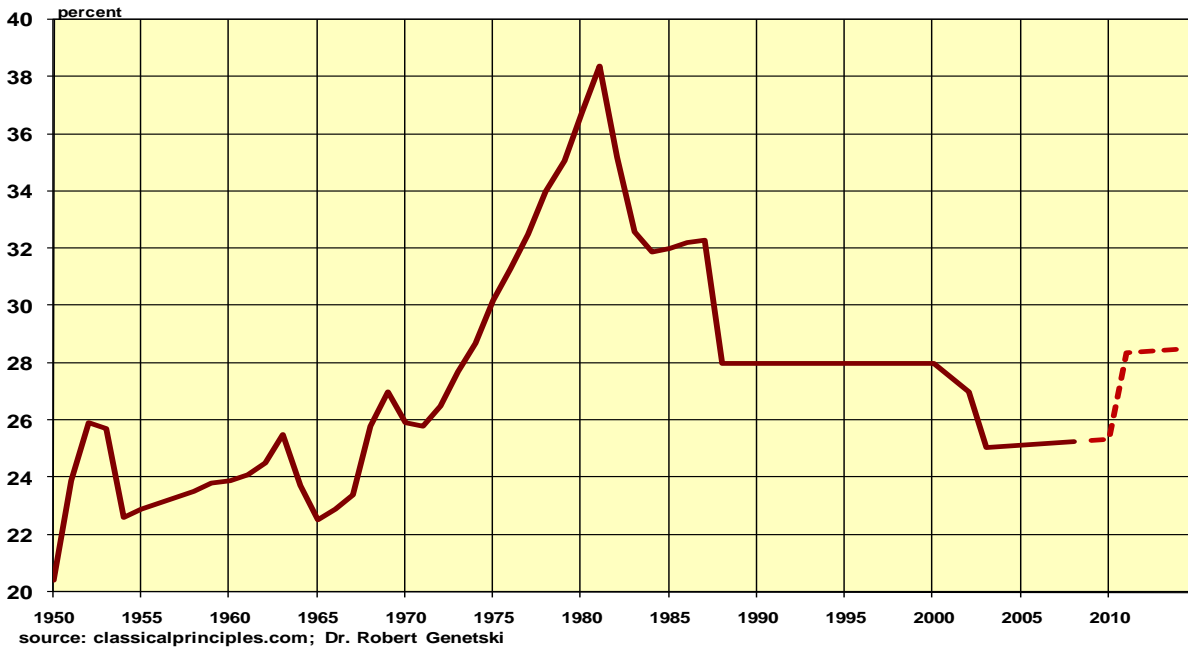
Economic success or economic failure is not accidental. It stems from following specific policies. The US has been the most successful economy in the world. Even so, whenever the US has shifted policies away from classical principles, there have been problems. A major shift occurred during the 1930s that produced the Great Depression. US policies at that time consisted of increases in tariffs, taxes, government controls and a gross mismanagement of monetary policy.

After World War II, the US returned to the classical policies that had served it so well for so long. However, beginning in the late 1960s policies again began to drift away. By the 1970s tax rates soared and government again resorted to controlling wages, prices and the allocation of resources. A third and less damaging shift away from classical policies came in the late 1980s and early 90s, when tax rates on capital gains (1987) and the rich (1993) were raised.

The following charts show major tax changes in the post World War II period.

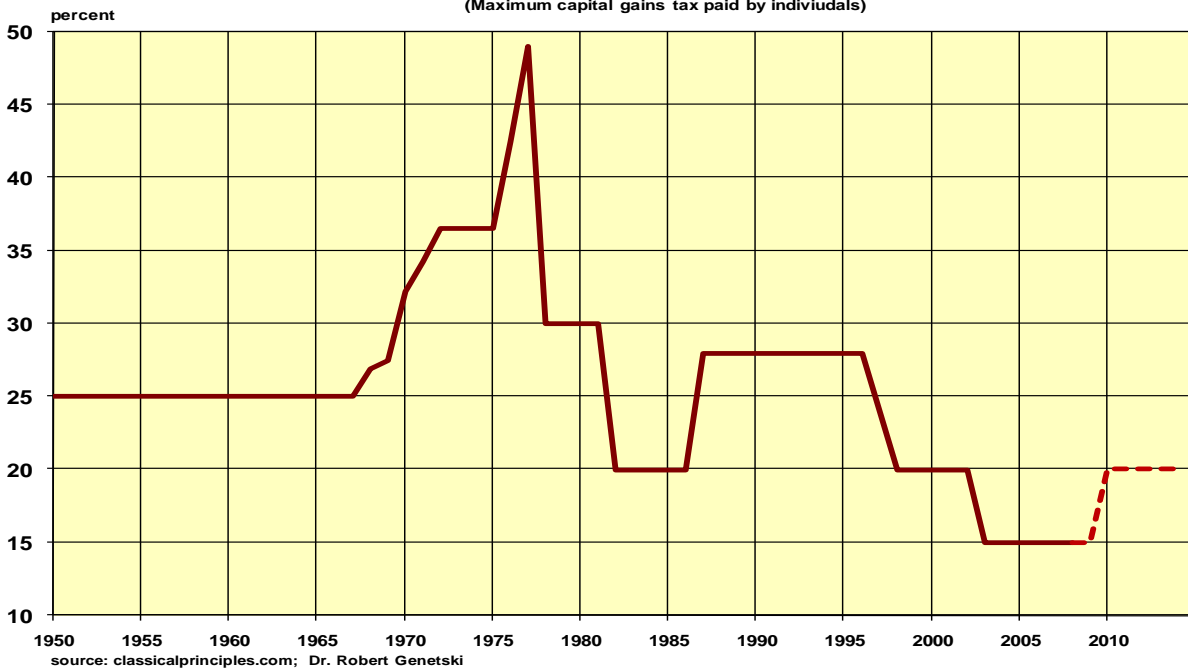
Effective Marginal Tax Rates: Individuals

(Data are based on Genetski estimates of MTR for indiv. In 70th-95th percentile)



Marginal Tax Rates: Capital Gains

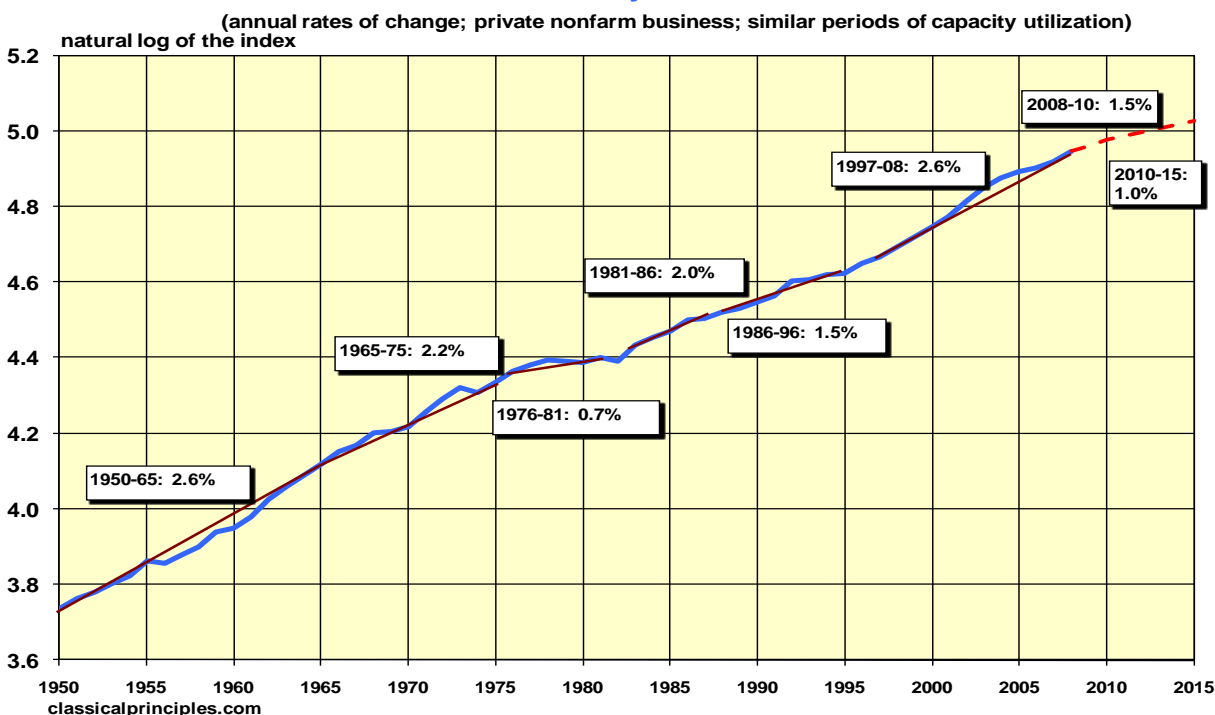
(Maximum capital gains tax paid by individuals)



Productivity is an estimate of how efficiently resources are combined to produce things that other people want. Strong productivity performance is the key to a healthy economy. As the following chart shows, on each occasion when there was a clear increase in tax rates, the economy's productivity trend either slowed (early 90s) or stopped completely (late 70s).

During the post World War II period productivity growth has averaged 2.1% a year. Whenever classical policies were aggressively pursued, productivity performed well. One of the strongest periods of productivity occurred during the past eight years. From 2000-08 productivity increased by 22%! In 2008 the US economy was 22% more efficient than it was in 2000. Stated differently, US workers produced and consumed 22% more goods and services than they had eight years earlier. This matches the most dramatic period of economic gain ever experienced in the developed world.

Productivity Trends



The Distinction between the Real Economy & Financial Markets¹

Modern economic theories suffer from a serious shortcoming. A lack of understanding of the nature of real economic activity and the role of financial markets tends to lead to a number of widespread, confusing and nonsensical conclusions. For example, the widespread notion that spending money helps the economy while saving it can be harmful is simply wrong. The equally popular notion that government can help boost spending by running deficits is another popular myth. False economic ideas stem from misconceptions surrounding the nature of real economic activity and financial markets. This section deals with a basic discussion of these issues.

¹ This section includes a brief description of some fairly complicated economic concepts. More complete explanations are available in the following books: Fisher, Irving, *The Nature of Capital and Income* (1906) and *The Rate of Interest* (1907) and Iverson, Carl, *International Capital Movements* (1935).

This past year the equivalent of roughly 130 million full-time US workers produced roughly \$14 trillion of goods and services. The typical worker produced roughly \$100,000 in goods or services and earned roughly \$62,000 (including benefits) for that production. The remainder went to replacing plant and equipment that was worn out producing the output (\$13,000), for pre-tax corporate profits (\$8,000), for income to small businesses (\$7,600) and other miscellaneous factors.

By creating the \$14 trillion in goods and services, workers earned an equivalent amount of spendable earnings. Spendable earnings represent control over the goods and services that were produced during the year. In the course of the year all \$14 trillion of spendable earnings will be used to purchase the \$14 trillion of output that was created. The earnings created in producing the output is always equal to the output produced.

Simplifying the analysis can often help grasp abstract concepts. Imagine a primitive economy in which there are only two families. One family specializes in producing food while the other produces clothing and shelter. The family producing food exchanges its surplus food for the extra clothing and shelter produced by the second family. The value involved in the exchange of clothing and shelter for food represents the income or spendable earnings of each family. The real value of the buying power that each family earned during the year will be used to purchase everything that has been produced. The only thing anyone can do with a claim to the goods and services that have been created in that year is to spend it on the output that was created in that year.

It is a very basic but often overlooked truth that spendable earnings must equal the value of the output produced in that period. Adding additional families and more products doesn't change the essence of what goes on in the real economy.

Understanding this basic notion of how the real economy works is important in clearing up some of the widespread misconceptions noted above. We often hear people say that when we spend money we somehow help to boost the economy while not spending can somehow harm the economy. However, if every dollar earned creating goods and services is spent, then it's not possible to "not spend."

Part of the confusion surrounding spending versus saving is due to the misconception that money that is saved is not spent. Nothing could be further from the truth. Each year, individuals spend roughly 80% of their spendable earnings on things that bring immediate pleasure—food, clothing, shelter, health care, and entertainment. The remaining 20% is spent on things that are intended to provide future benefits. This includes spending on such things as research, equipment, buildings, roads—anything that will enable more goods and services to be produced in some future period. Economists refer to the money spent on these things as an investment, while the money set aside for this investment is referred to as saving.

In 2008, out of the \$14 trillion of spendable earnings roughly \$3 trillion was used for investment. This means that roughly \$3 trillion was not used for things that provide current enjoyment. It was saved. Hence, one definition of saving involves the act of using some portion of spendable earnings for purchases of items that are not intended to bring current enjoyment. Rather, they are intended to bring future benefits. This definition of saving and investment applies to the collective behavior of all individuals. It suggests that for the entire country, saving is the amount of spendable earnings that is devoted to investments that are intended to produce future enjoyment.

There is another somewhat different concept of saving that is more common among non-economists. This concept also considers saving as not using spendable earnings in the current period. The way an individual “saves” is to make a portion of his or her spendable earnings available to others. If one individual makes a portion of their earnings available to someone who spends it on current enjoyment, then from an economic standpoint the “saving” that the first person did was offset by the negative saving of the second person. Since none of the earnings went toward investments in the future, there was no additional saving for society as a whole.

Whether saving involves investment in the future for the economy as a whole or whether it involves the transfer of spending power for current enjoyment, it involves something unique. Saving involves transferring spendable earnings from one time period to another. The act of transferring the spendable earnings created by one person so they can be used by another person is done through financial markets. Financial markets exist to transfer spendable earnings from one time period to another. A financial instrument is a contract that involves the terms associated with this transfer.

All of the various financial market instruments—stocks, bonds, mortgages, asset-backed securities, etc. exist for the purpose of transferring control over spendable earnings from one time period to another. Spendable earnings in the present period are more valuable than spendable earnings in the future. As a result, those willing to give up control of their current spendable earnings must be compensated for their sacrifice. The interest rate for debt instruments reflects the additional compensation necessary for postponing the use of spendable earnings. Dividends on stock or the expectation of a gain from holding stock are other forms of potential reimbursement that people receive for transferring their claims to current spendable earnings to others.

A failure to understand the relationship between the real economy, the creation of spendable earnings and the transfer of control over these earnings from one time period to another leads to some basic, but fairly common errors. For example, many believe that when individuals take out home equity loans, they can somehow increase spending in the economy. What actually occurs is that the home equity loan provides for the transfer of spending power in the current period from whoever earned it to the borrower. The borrower gets to spend the money instead of the lender. There is no increase in spending, simply a transfer of current spending power.

The problems the economy encountered this past year stems from a failure of financial markets to operate in a normal fashion. Understanding this failure and the measures that have been taken to deal with it are essential to understanding the impact these measures will have on the future performance of the economy.

It's widely recognized that the problems in capital markets stem from the unprecedented collapse in housing. By the end of 2008 housing prices had already declined by close to 25%. Futures markets point to a total decline of more than 30% by the time the cycle runs its course. Once the price of a home falls below the amount of the mortgage, homeowners are tempted to abandon their homes and default on the mortgage.

Traditionally, financial institutions retained mortgages and it was relatively easy to determine the value of the asset underlying the mortgage. During the past two decades new financial instruments were developed that made valuing underlying assets more difficult. Packaging a group of mortgages into one asset (a mortgage-backed security or MBS), separating interest payments from principle, slicing the MBSs into different classes and insuring the value of the various segments produced extremely complex financial assets. As housing prices declined, the complexity and lack of transparency of these assets made it difficult or even impossible to determine their value. This lack of transparency led to a collapse in the prices of various financial assets.

Buyers of financial securities became reluctant to purchase any complex security where values could not be readily determined. Hence, prices of various financial assets fell, even in areas where the assets underlying the securities might have retained their value. When it becomes difficult to value financial assets, it also becomes difficult to determine the value of institutions that hold these assets. This lack of transparency regarding the value of assets contributed to concerns over the viability of various financial institutions thereby creating great uncertainty in financial markets.

At this point, it's important to distinguish between the \$3 trillion of annual spendable earnings set aside for spending on investments and the value of financial market instruments that are created to transfer those earnings into investments. In financial markets the value of assets is not directly related to corresponding amounts reflected in the real economy. The use of securitization of assets, derivatives and the transfer of assets among different financial institutions leads to multiple counting of the same financial assets. Hence, it's important to distinguish between the nominal value of assets that are often counted many times over and the underlying real assets that are at the heart of the transfer in real spendable earnings.

A related issue in the value of financial assets is the relationship between the real value of assets and people's expectations of what the assets are worth. We often hear that a collapse in the stock market has led to the destruction of trillions of dollars in wealth. Which then leads people to wonder where did the wealth or the money go? The mistake here is to confuse the value of stocks with wealth. Stocks do not represent wealth. They represent the discounted value of *expected* future earnings. *Expected* earnings are not wealth. The value of stocks can rise and fall by trillions of dollars without any change in the real assets (wealth) that the stocks represent. When the prices of stocks change, what often changes are the *expectations* investors have with respect to future earnings.

When expectations regarding the value of capital assets change dramatically enough, as happened this past year, it can create a paralysis in credit markets. That paralysis makes it difficult for even healthy firms to get credit for normal business operations. When that happens, the problems in credit markets spill over into the real economy.

Fiscal Policy, Deficits, Recession & Recovery

Understanding the nature of real economic activity provides the tools for examining the likely impact of various government policies. These tools help to explain why government policies that were designed to help the economy made the financial crisis worse.

The first problem involved the government's misguided attempt to stimulate spending by sending people checks in the spring of 2008. Almost every modern economic textbook discusses fiscal policy. Fiscal policy refers to government spending and tax policies designed to influence economic activity. These textbooks explain how increasing government spending or cutting taxes can stimulate spending. The idea that fiscal stimulus will increase spending is as widespread as it is wrong.

For fiscal stimulus to make any sense, it has to mean that the government's action with respect to tax and spending will impact spending over and above the impact of monetary policy. (Monetary policy is a completely different issue that will be considered in the next section.) Once monetary policy is set aside, the economic analysis of fiscal policy reverts back to dealing with the type of real economic activity discussed in the previous section.

Recall that in the real economy, people are producing things and earning real spendable earnings for their efforts. Government takes some of those spendable earnings through taxes and spends them on public services. In the real economy, government is subject to the same rules as everyone else. Since spendable earnings represent a claim to the output produced during this period, and since it all must be spent, government cannot spend more or less than everyone produced.

When government taxes people to get the money to spend on public services it's fairly obvious that the spending power of the taxpayer is being transferred to government. It is less obvious that the same transfer occurs when government decides to "stimulate" the economy by running a deficit. However, when the government decides to spend more than it takes in taxes it has to go into the financial markets and selling bonds to savers. The money that government receives for the bonds represents spendable earnings. All that is happening in the case of fiscal stimulus is that government policy is taking the spending power from one group and is transferring it to another group. With fiscal policy, government neither creates nor destroys spending power.

Recall that in the real economy people are at work earning and producing some \$14 trillion of goods and services during a year. At the same time individuals have set aside roughly \$3 trillion of their spendable earnings that tends to be redirected from spending on current enjoyment toward spending on investments designed to contribute to future growth. When the government sells bonds it taps into the \$3 trillion in spendable earnings that is intended for investments in the future.

Taking spendable earnings from where they would have gone and transferring them to where politicians want those earnings to go doesn't necessarily stimulate anything. The idea that the money would not have been spent is simply wrong. All spendable earnings that are created when output is produced are spent—it's the only thing that can be done with these earnings. The only issues are, who will spend the earnings and what will they buy?

If the government does not adopt a "stimulus" program the spendable earnings will be available for the type of capital programs that will enhance future growth. When government borrows these funds, the spendable earnings are transferred to government programs.

Fiscal policy moves can help or harm real economic activity. The determining factor is not the size of the program, but the use of the funds. If the government program makes more efficient use of the available spendable earnings than the private sector would have made, the government program will benefit the economy. For example, government policy could involve a permanent tax cut on productive activity. In this case, government would still have to borrow the spendable earnings that would have been used productively in the private sector. However, not only would the funds still be available to the private sector (in the form of tax cuts), but with lower tax rates there would be an additional increase in the incentives to create wealth.

Most forms of fiscal stimulus are actually harmful to real economic activity. There is a wide range of research that shows that government spending tends to be about half as productive as private spending. This means that almost all attempts at fiscal stimulus that involve government spending will reduce efficiency. The larger the expenditure, the greater will be the loss in efficiency. Government loans to failing businesses simply involve transferring spendable earnings from healthy businesses to unhealthy ones.

Tax rebates are another policy that has a negative effect on the economy. Government borrowing to fund rebates involves taking spendable earnings that would have been available for investment and transferring that earning power to those receiving the rebates. Those receiving the rebates are more likely to use the spending power for current consumption. Farmers have a term for using savings for current consumption—it's *eating the seed corn*.

As was noted above, in 2008 there was roughly \$3 trillion in spendable earnings that was destined to be used for spending on investments designed to produce future benefits. The following table shows a rough calculation of the various “stimulus” programs that have either been passed or proposed. It suggests that a large amount of this \$3 trillion will no longer be directly available for traditional spending on investments.

Government “Stimulus”

(Billions of dollars)

• Beginning deficit	\$250
• Early stimulus	170
• Bailout Fannie & Freddie	200
• Fallout from Fannie & Freddie bailout	700
• AIG bailout	150
• Down payment on auto loan	17
• Dem/Obama proposed “stimulus”	<u>800</u>
• Total	\$2,287

It should be noted that a good deal of the roughly \$2 trillion represents funds that remain in the system and will still be available for traditional investment. For example, the estimated \$900 billion associated with the bailout of Fannie and Freddie and its aftermath was used to buy securities or make loans to financial institutions. In this case, the spendable earnings represented by the transfer of these financial assets remains available for investment purposes. However, before the government’s action, the market system was dictating the flow of these funds. This meant that available spendable earnings went to the most creditworthy borrowers at the lowest interest rates the market could produce. Less creditworthy borrowers either paid the highest interest rates or were not able to borrow at all.

With the government redirecting roughly \$2 trillion, the market system no longer operates as it once did. Instead of the market determining who gets access to funds and who is left out, political pressures influence such decisions far more than in the past. Such pressures mean that credit flows become significantly less than optimal.

When Congress established Fannie and Freddie it involved a major effort to shift credit away from where market pressures would have sent it. The problems that can occur when political pressures rather than market pressures dictate the flow of credit became readily apparent this past year. An obvious lesson from the past year’s financial crisis is that political pressure should not replace market pressures in the allocation of resources or credit.

Unfortunately, the actions of governments around the world suggest that the lesson they have learned is the opposite one. They have decided that political pressures should now be the main force directing credit through the economy. The implications should be clear. Redirecting the economy’s resources from the efficiencies created by market pressures to the inefficiencies created by political pressures will reduce productivity and lead to a growth path that is well below that of the past decade.

Monetary Policy, Recession & Recovery²

The collapse in housing prices was a key factor in the past year's financial crisis. Government fiscal policies created serious additional problems by borrowing massive amounts of spendable earnings and redirecting them toward less efficient uses. In addition, as has occurred in almost every recession since its inception, the Federal Reserve made serious mistakes in the conduct of monetary policy. Given the monetary blunders of the past year, it's likely that the economy would have slipped into a recession even without the collapse in housing prices.

When asked how to define money, Milton Friedman noted that there could be many definitions. The most appropriate, according to Friedman, is the one that has the most stable relationship to current dollar spending. Hence, the appropriate measure of money might consist of bank reserves, currency, bank deposits, or whatever combinations of these items provided the best guide to subsequent economic activity. Over the past few decades there has been no highly stable relationship between any one measure of money and current dollar spending. This is likely due to the dramatic changes in both the nature of various monetary assets and the various financial institutions that deal with those assets.

The relationship between money and spending is extremely powerful. It has to be. The role played by the Federal Reserve is similar to that played by a counterfeiter. Just as a successful counterfeiter has the power to boost spending and debase the value of money, so does the Fed. However, the monetary process is complex. In addition to the Fed, banks and consumers can influence the amount of monetary assets in the system. In addition, changes in both the nature of monetary assets and financial institutions can make it difficult to measure the elusive concept of money. Finally, variable lags between the Fed creating money and the effect that money has on spending can make it appear that spending is only remotely related to the Fed's policies.

When Congress created the Federal Reserve in 1913 it gave it the power to create money out of thin air. No other legal entity has this power. This makes the Fed and its actions unique. The Fed has several ways in which it can create money. The most common way is to purchase securities. When any other entity purchases securities, it must pay for them with a corresponding asset that represents spendable earnings created during the production of goods or services. In contrast to others, the Fed pays for its purchases by simply creating an accounting entry on its books. The accounting entry credits a bank with an increase in the banks' deposits at the Fed. These deposits are known as bank reserves. Bank reserves are a unique asset, one that does not directly correspond to the creation of real spendable earnings.

In addition to purchasing securities, the Fed has another way of creating money. It can make a loan. For any other entity that makes a loan, there is an asset underlying the loan that represents spendable earnings that were created by producing real goods and services. The Fed can fund the loan like any other entity. It can do so by exchanging a security already in its portfolio for the loan or by selling an asset from its portfolio to pay for the loan. When it behaves in this manner, the Fed behaves like any other entity. Bank reserves do not increase and there is no new money created. However, if the Fed pays for the loan by simply creating an accounting entry on its books, the result is the same as when it purchases securities. It creates an asset that is not backed by the creation of any real output.

² As with the section on real economic activity, this section includes only a brief, incomplete discussion of some complicated monetary concepts. For further reference see: Hume, David, *Political Discourses* (1752) p. 47; Thornton, Henry, *An Enquiry Into the Nature and Effects of the Paper Credit of Great Britain* (1802) pp. 236-37; and Mises, Ludwig von, *The Theory of Money and Credit* (1912) pp. 157-168.

The creation of bank reserves is the first step in the process of creating money. Banks and the public can also influence the amount of money in the economy. Banks take the newly created reserves and use them to make loans or to purchase securities. Those receiving the funds either as a loan or in return for selling securities will redeposit those funds in the banking system. This process creates a multiple expansion in monetary assets. The “multiple” refers to the potential for a given amount of new bank reserves to produce a greater amount of loans and deposits with banks than the initial creation of reserves.

The extent to which the creation of bank reserves leads to a multiple expansion of monetary assets depends on several factors. One relates to reserve requirements. Banks are required to keep a certain portion of their deposits with the Fed. If the Fed increases the proportion of the deposits that banks are required to keep with the Fed, it limits the multiple expansion of credit. In contrast, by reducing required reserves the Fed can increase the multiple expansion of credit. Changing reserve requirements tended to have such a powerful effect on the expansion of monetary assets that the Fed has long since abandoned its use.

The Fed places different reserve requirements on different types of deposits. Currently banks are required to hold reserves with the Fed that amount to 10% of their transaction deposits and 0% on time deposits. Shifts among these types of bank deposits can affect reserve requirement and therefore affect the expansion of credit. The Federal Reserve Bank of St. Louis adjusts data on bank reserves in an attempt to eliminate the impact that changes in reserve requirements can have on the multiple expansion of bank assets.

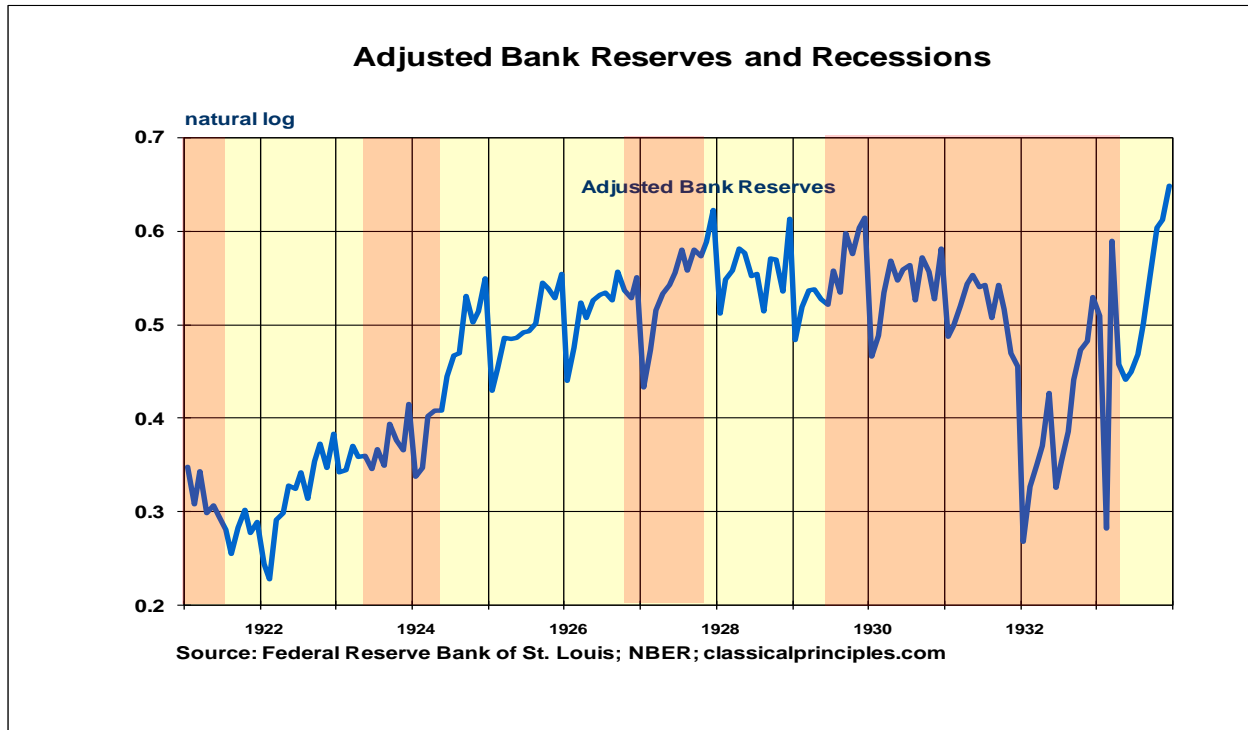
Bank reserves and currency represent the monetary liabilities of the government. The combination of the two is referred to as high-powered money, or alternatively as the monetary base. The term high-powered money reflects the potential for the funds to be expanded through the banking system to produce some multiple of monetary assets. Bank reserves and currency are unique financial assets in that neither is directly related to the creation of real goods and services.

The public can also impact the multiple expansion of high-powered money. When the public increases its preference for holding currency relative to bank deposits it takes funds out of the banking system and thereby reduces the expansion of monetary assets. In contrast, when the public decides to hold more assets in the form of bank deposits and less in the form of currency it can increase this expansion.

The relationship between monetary assets and the underlying claim to spendable earnings from real production is often a source of misunderstanding. Money is produced to facilitate the exchange of spendable earnings that were created from real production. In a growing economy, real production might increase by say, 3% a year. If the government created enough money to allow spending to increase by 3%, the new spending would match the increase in real output. In this case, even though the government created the additional money out of thin air, there would be spendable earnings based on the additional real output that was created. When increases in spending match the increase in real output there cannot be any inflation. Inflation can only exist when spending increases faster than the creation of real output.

Bank reserves represent the first step in the monetary process. As such, it is often the most powerful of the monetary indicators. While the Fed produces several measures of bank reserves, the most useful one is produced by the Federal Reserve Bank of St. Louis, which adjusts the number for seasonal factors and for changes in reserve requirements.

In the entire history of the Federal Reserve, there have been only two recessions that were not preceded by either the failure of bank reserves to increase or an outright decline in bank reserves. One was the brief downturn following the end of World War II which was related to the shift from wartime to peacetime production. The other was the 1974 recession. The latter was brought on by a spike in inflation associated with the end of price controls and a surge in oil prices. The following charts show a history of the behavior of bank reserves along with every recession since the bank reserve numbers were first calculated. Recessions are the shaded areas in red.

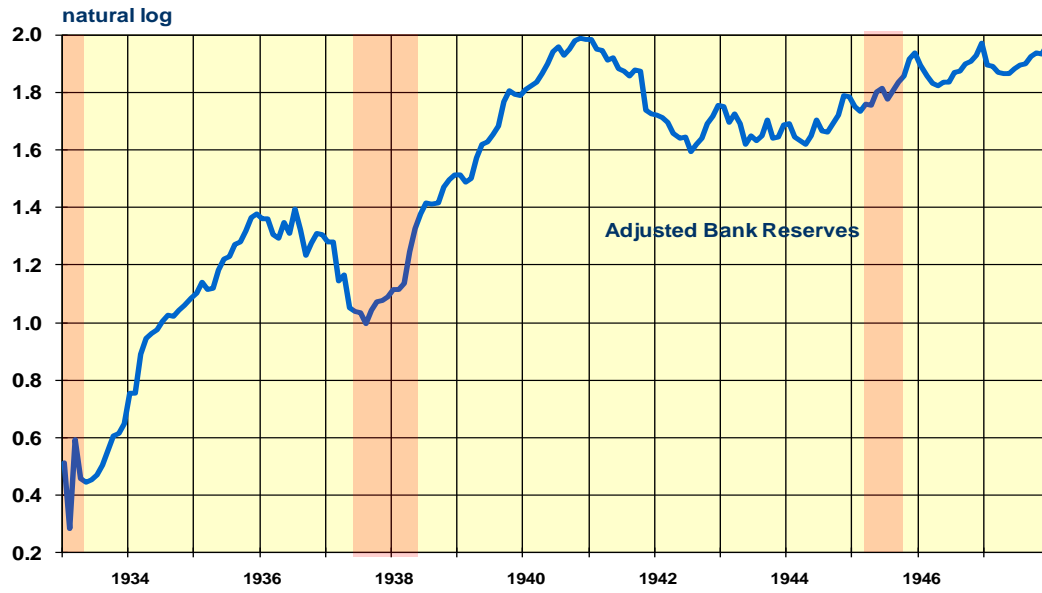


It's interesting to note similarities between the beginning of the Great Depression in the 1930s and the current financial crisis. The first stage of the Depression in the 1930s was relatively mild. In November of 1929 the unemployment rate stood at 5%. Although it rose to 9% in December, it fell back to 6.3% by June of 1930. That month the Smooth-Hawley Tariff was passed. By 1931 the unemployment rate hit double digits. At that point, bank reserves declined sharply and business activity suffered an outright collapse.

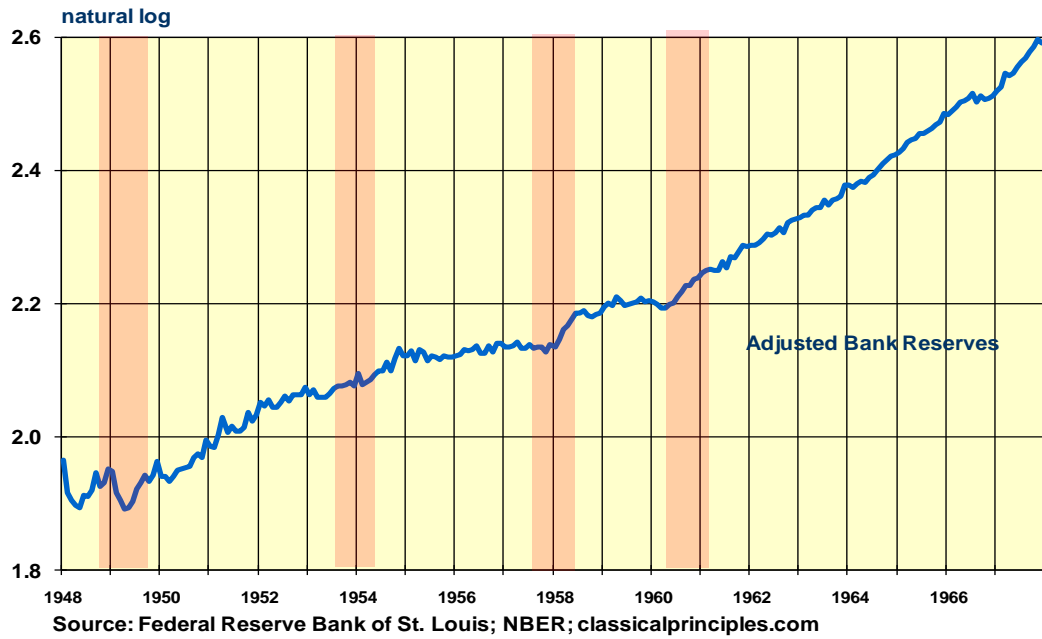
Beginning in 1932, the Fed began to erratically increase bank reserves. By the spring of 1933 current dollar spending began to increase at a rapid pace. From 1933-36 current dollar spending increased at double-digit annual rates and the economy recovered dramatically. The Fed then increased reserve requirements in 1936-37, which sharply reduced adjusted bank reserves. This action ended the recovery and ushered in a second downturn in business activity.

None of the massive government intervention by either President Hoover or President Roosevelt provided any significant relief to the depressed economic conditions of the 1930s. Tax increases, government borrowing to increase spending and efforts to control wages and prices all failed to help lift the economy out of the Depression. The only period of relief during the entire decade was when the Fed aggressively increased bank reserves.

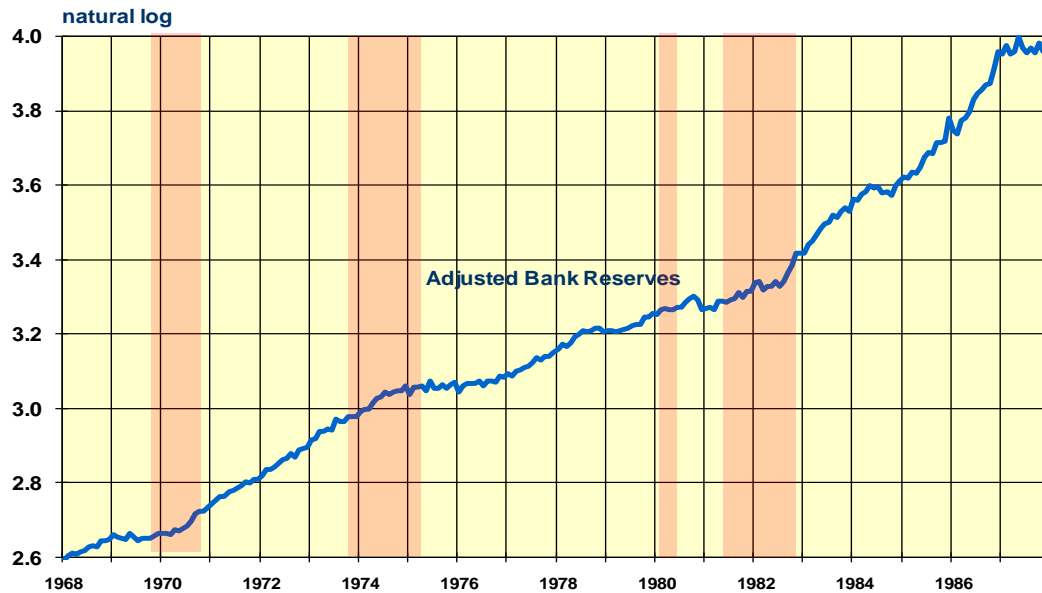
Adjusted Bank Reserves and Recessions



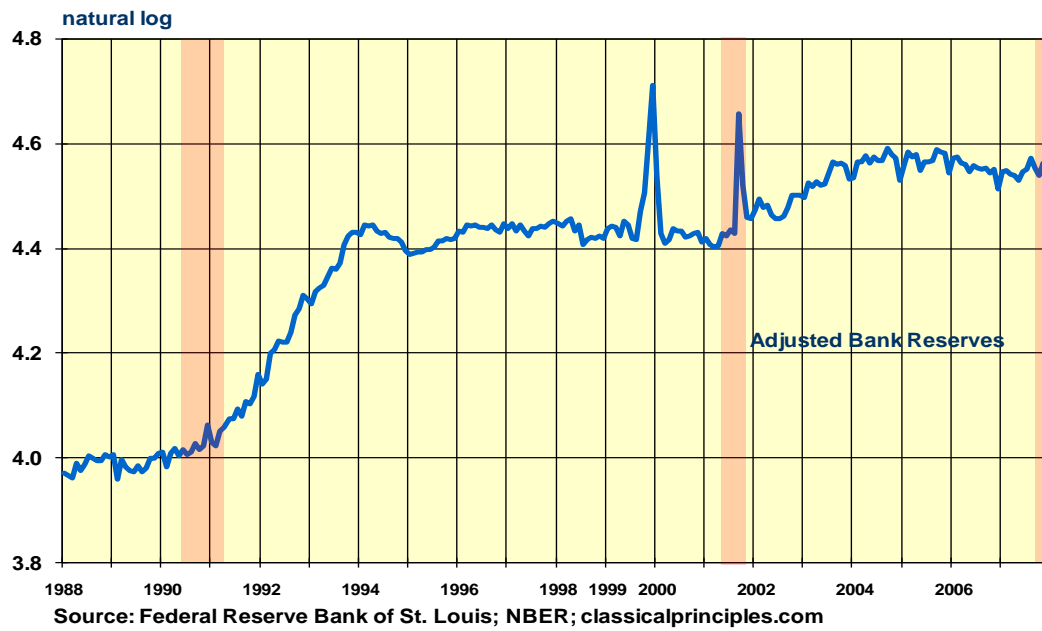
Adjusted Bank Reserves and Recessions



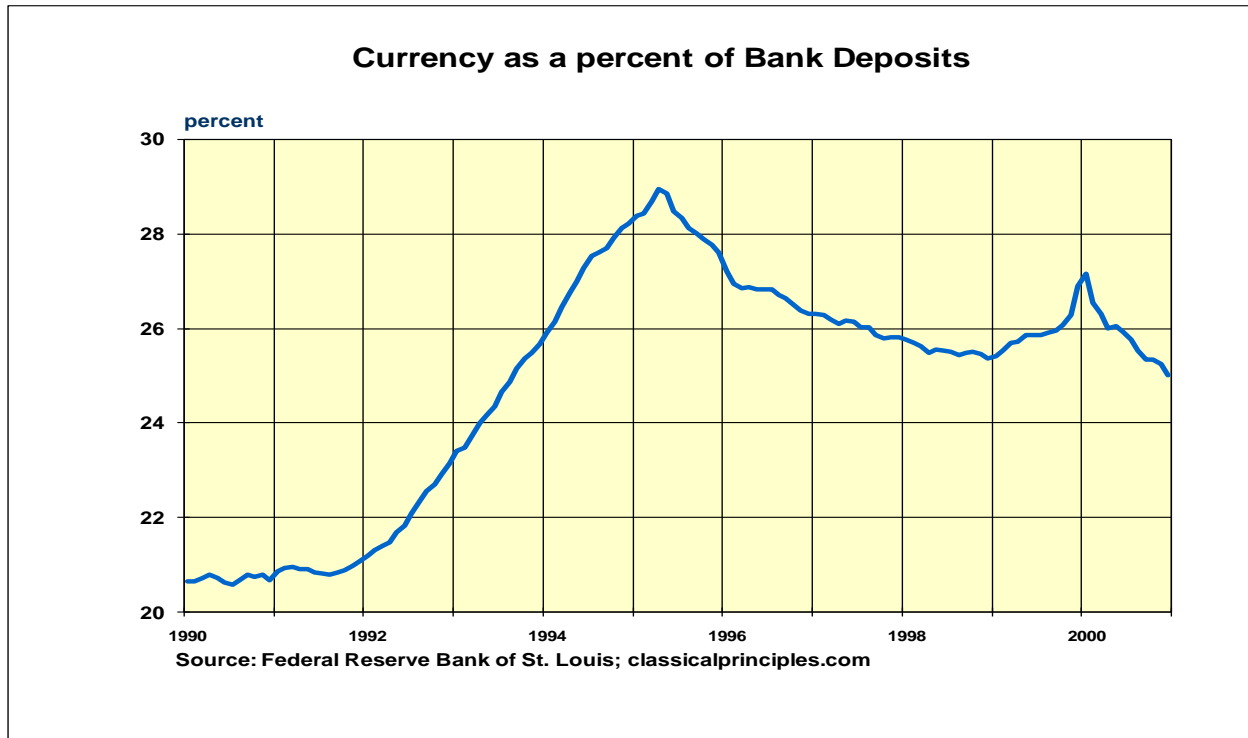
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Adjusted Bank Reserves and Recessions



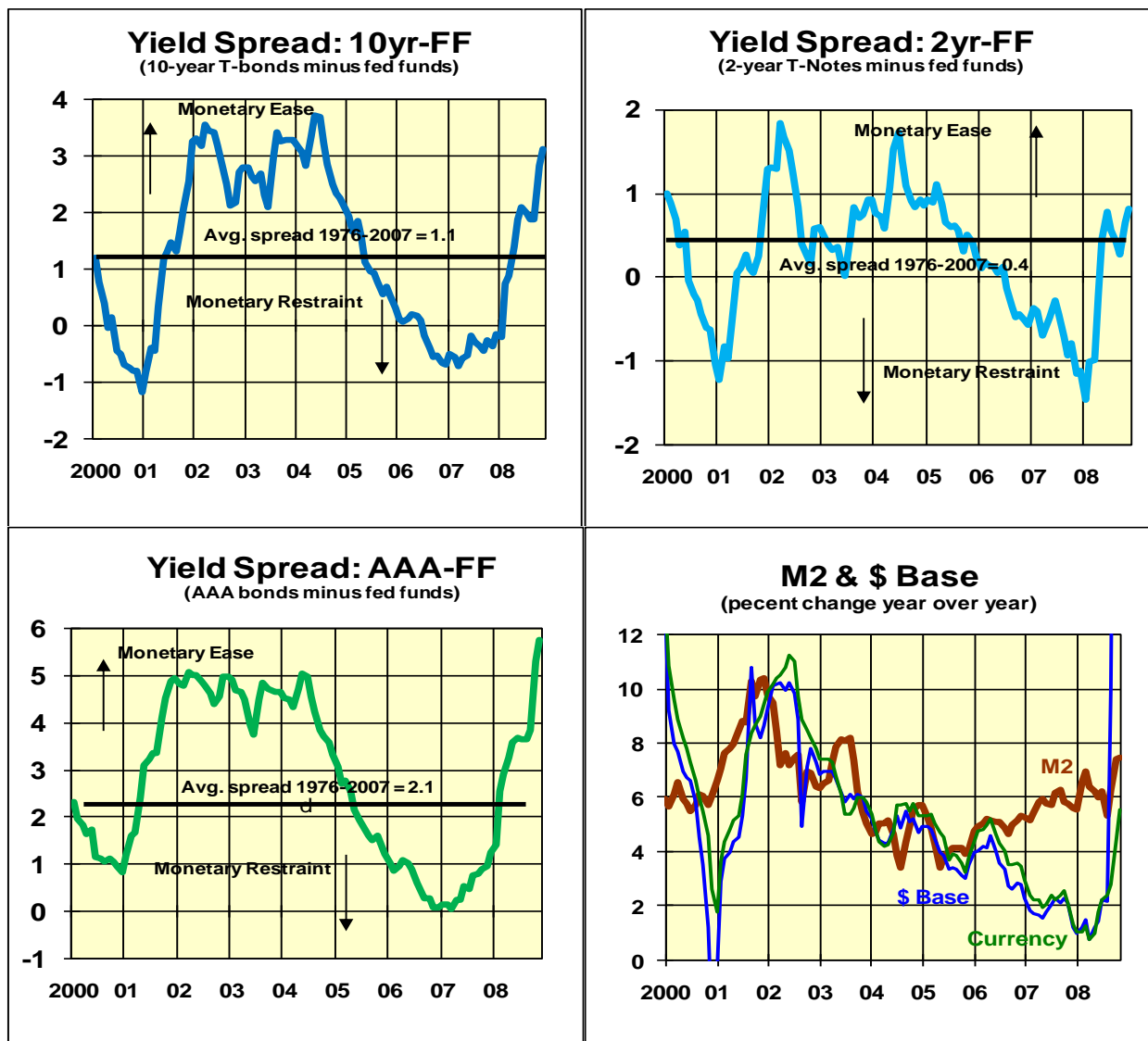
The behavior of bank reserves during the 1990s represents an example of how the public can offset the influence of the Fed's actions. As the chart below shows, during the early 1990s the public decided to hold more currency relative to bank reserves. This meant that there was less expansion of money assets from a given amount of bank reserves. The opposite occurred in the later part of the decade. This meant that the existing level of bank reserves could support more of a creation of money assets. To conduct a stable monetary policy, the Fed has to make allowances for changes in the public's preference for currency relative to deposits.



There are further complications related to the mechanics of money that are well beyond the scope of this report. Suffice it to say that there are a number of slippages between the Fed's monetary moves and their impact on the economy. Even so, the history of monetary policy suggests that it has played an integral role in contributing to every recession, including the current one.

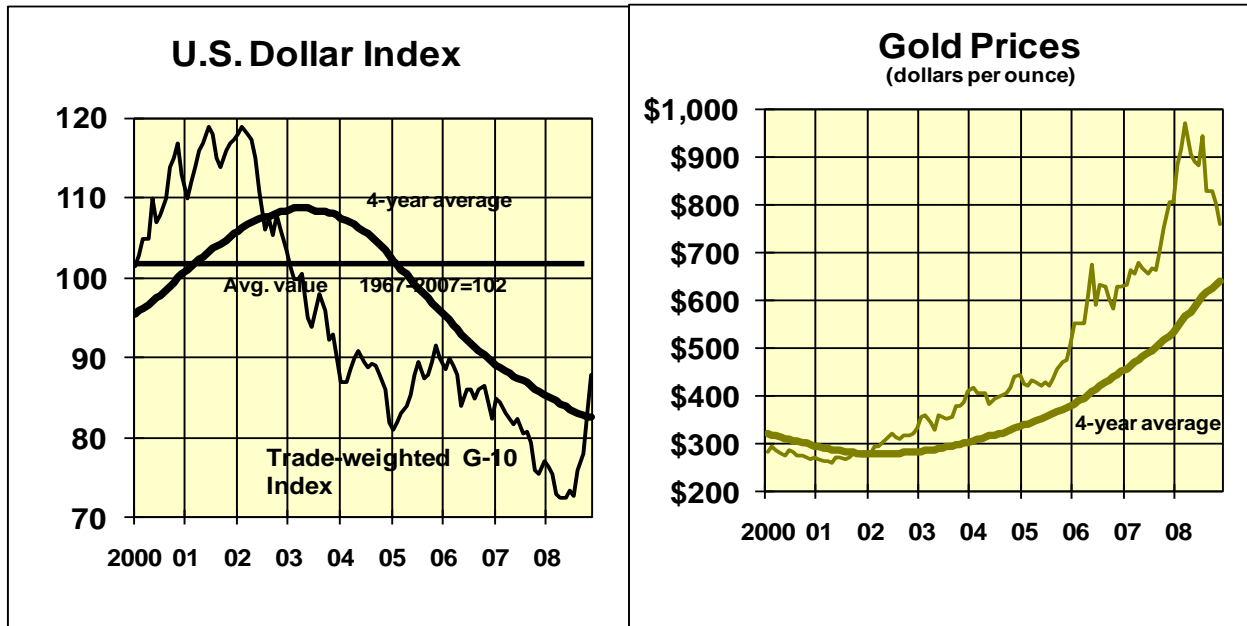
Since no measure of money, including bank reserves, has a perfect relationship to subsequent economic activity, it can be helpful to look at various other monetary indicators to determine the extent to which monetary policy is expansive or restrictive. The spread between short and long-term interest rates has often provided additional insight. During periods of monetary restraint, this spread tends to narrow. When restraint becomes extreme, the spread can turn negative. During periods of monetary ease, spreads tend to be relatively wide. It can also be helpful to look at the growth in other measures of the money supply. The following charts show how yield spreads and other measures of money signaled a period of monetary restraint prior to the current recession.

Yield curves moved below their cyclical averages in 2005 and signaled a restrictive monetary policy for at least two years before the beginning of the current recession in December of 2007. As the charts also show, the growth in currency and high-powered money (\$ base) all slowed significantly. Not all monetary indicators pointed to a recession. The M2 measure of money includes time deposits. These deposits grew rapidly prior to both the recession in 2001 and the current recession. As a result, the M2 measure of money failed to slow prior to either recession.



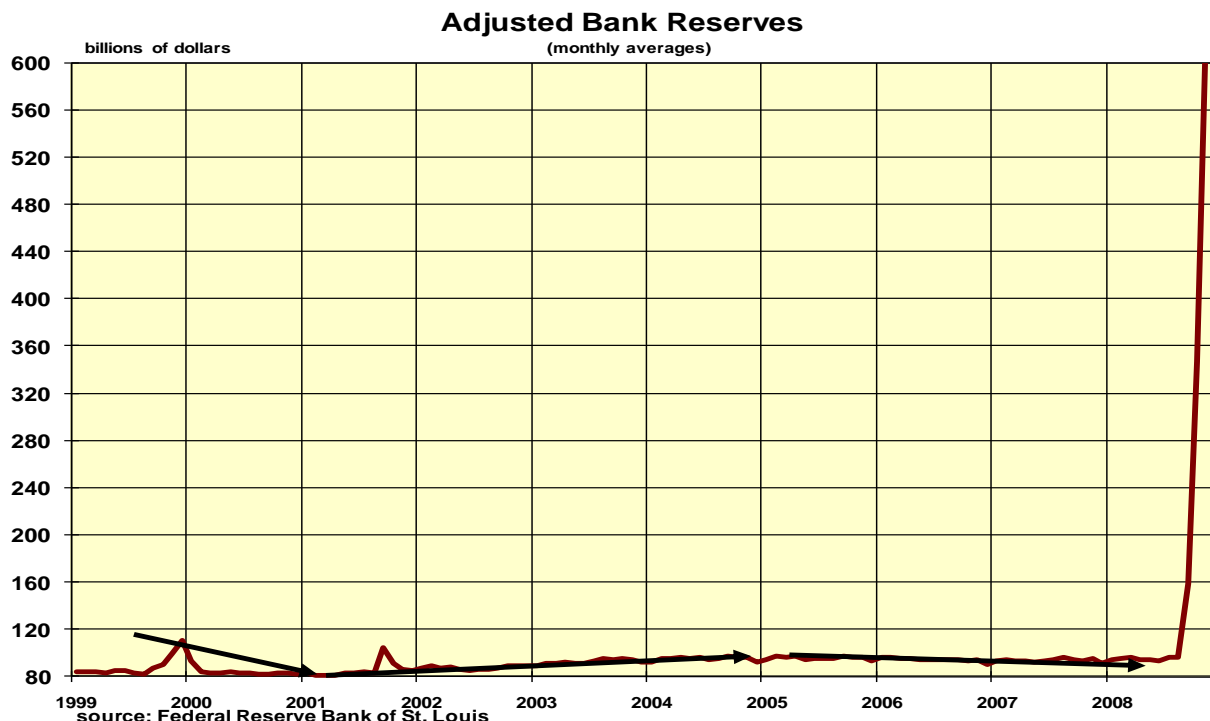
Gold prices and the value of the dollar are other potential monetary indicators. Prior to the current recession, gold prices and the value of the dollar behaved as if monetary policy were highly expansive. However, while gold prices tend to rise during periods of rapid monetary expansion, they can also move higher during periods of uncertainty. It is now apparent that the higher gold prices from August of 2007 to the beginning of 2008 reflect the uncertainty associated with a restrictive monetary policy and a freezing up in credit markets during this period. Gold prices were not reflecting an expansive monetary policy. The sharp drop in gold prices earlier this year occurred only after the Fed began to move to ease its policy of monetary restraint.

As for the dollar, it began to weaken in early 2006 when Congress adopted a more protectionist stance. The dollar began to improve in mid-2008 when the European Central Bank (ECB) moved to tighten an already restrictive policy. This masochistic action made the European economies even more vulnerable to a serious downturn than the US economy.



The belated but explosive rise in bank reserves beginning in September represents a monumental easing in monetary policy that will increase the pace of spending. Prior to 2008 many observers denied that monetary restraint prior would slow the pace of spending. They were wrong. Now, many of those same observers believe that monetary policy is impotent and will not increase the pace of spending. They refer to this impotence as a “liquidity trap.”

A liquidity trap is something akin to the Abominable Snowman. It has attracted great attention, but it has never been seen. As the historical charts on bank reserves show, business activity has *always* responded to an increase in bank reserves. As noted above, the magnitude of the response in spending to the creation of bank reserves can be affected by the behavior of banks and the public. However, there has never been a case (including during the worst point during the Great Depression) where the Fed has aggressively increased bank reserves that consumers have not responded with a significant increase in spending.



The recovery from the downturn in 1933 highlights a simple fact—people want to work, produce and earn spendable earnings. These are strong forces that will produce a recovery so long as there is a sufficient amount of money available for the economy to function. In the 1930s, it took a sharp reduction in bank reserves in 1936 and 1937 to send the economy into a renewed downturn. History shows that the monetary process is a powerful one. Given the evidence it's fairly certain that the recent explosive rise in bank reserves will ignite a sharp increase in spending. With normal lags, spending should begin to rise rapidly by the middle of the year, if not sooner.

There is one caveat with respect to monetary stimulus and the massive creation of bank reserves. These reserves must get into the economy in order to have the full impact on money (and hence on the economy). In October, 2008 commercial banks increased the amount of deposits they held at the Federal Reserve in excess of requirements by more than the total amount of new reserves created by the Fed. This created a shortage of reserves available for business and severely impacted financial markets. In order to make sure that banks use additional reserves, the Fed could place a penalty on banks for holding excess reserves at the Fed. Interestingly, beginning in October, the Fed did the opposite. It paid banks more than they could earn from other banks to keep excess reserves at the Fed. In this way, the Fed drove another spike into the heart of the economy and prolonged the recession.

Growth, Inflation, & Interest Rates

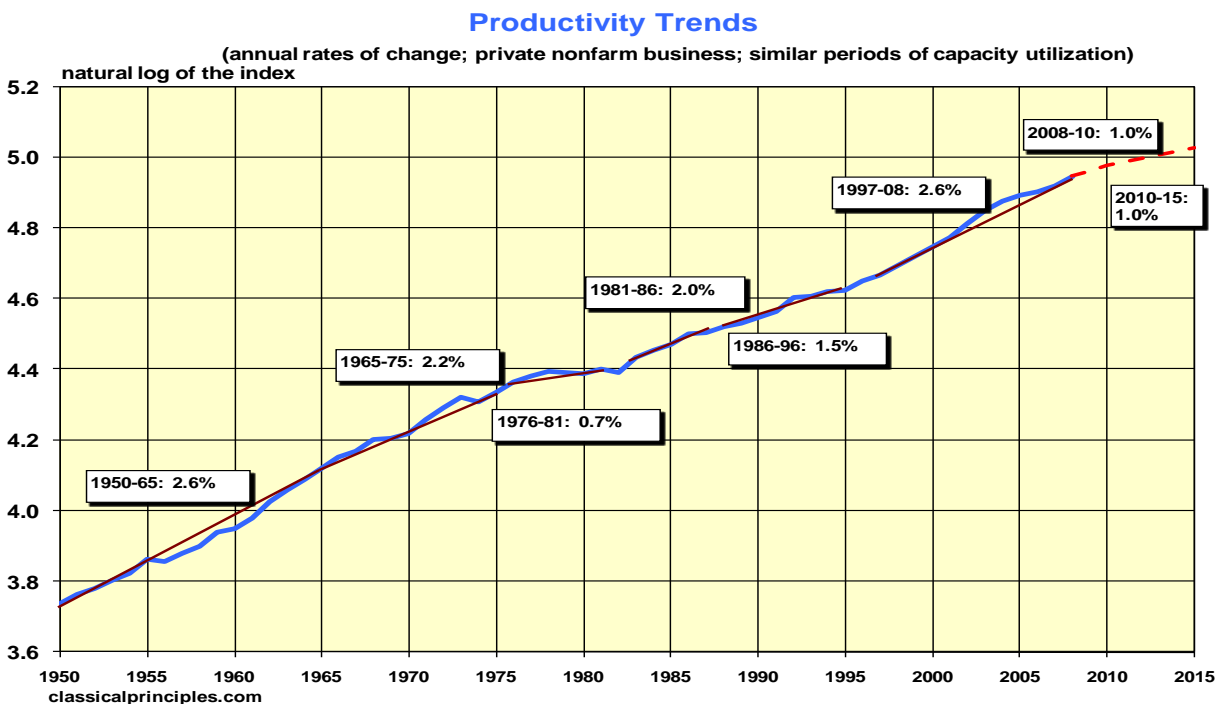
The ambitious agenda set out by President Obama's Administration makes it highly likely that productivity growth will slow in the years ahead. Both the Democrat Congress and the new President have a great deal of faith in the ability of government to solve economic problems. They attribute the record of past government failures to either insufficient funding or a failure to have the right people running the programs.

There has been a major tendency for government programs and power to grow, even when those voting for the programs were skeptical about their effectiveness. When those in control believe that the power of government can increase productivity, or even save the planet, it's difficult to imagine any meaningful constraints on an explosive growth in new programs.

Productivity growth will inevitably slow in response to the expansion of government power. However, the slowdown is not likely to become immediately evident. Productivity tends to be highly cyclical. It slows during recessions and increases faster than normal during recoveries. Once the Fed's monetary stimulus takes hold spending will soar. The cyclical boost in the economy will temporarily lift productivity.

Although all may seem well at first, the deterioration in the underlying productivity trend means that less additional real output will be available. Moreover, the growth in government programs will claim a larger share of the spendable earnings that people create. A sharp increase in spending relative to the economy's ability to increase in output means that prices will begin to accelerate. Higher inflation and slower growth will create greater pressures on living standards than anything seen over the past decade.

The chart below shows the underlying productivity trend slowing from the roughly 2½% annual increase of the past decade to 1½% from 2008-2010 and to 1% from 2010-2015. While the magnitude of the slowdown is speculative, the direction is not.

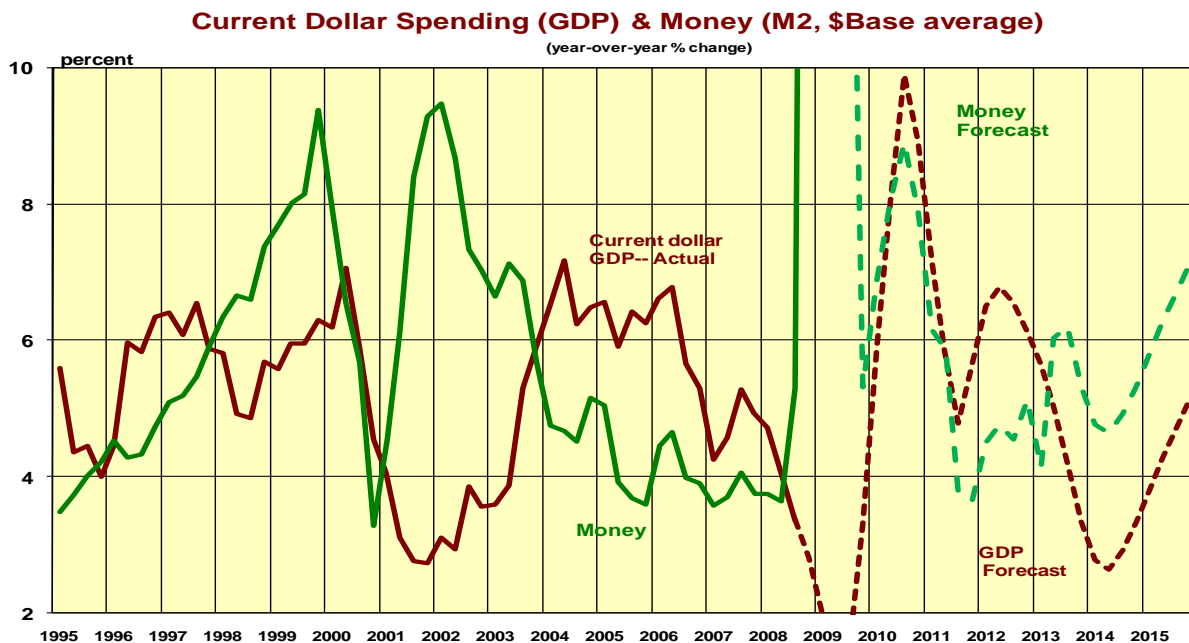


The slowdown in productivity has important implications for the economy. Productivity over the past eight years produced an income of \$62,300 for a typical full-time worker in 2008 (wages, benefits and all Social Security taxes). This compared to an income of \$51,000 (in 2008 dollars) eight years earlier. If productivity were to continue on the path of the previous eight years, the typical full-time worker in 2016 would have earned roughly \$76,000 in today's dollars. Instead, with the productivity trend shown above, earnings will be \$68,000. In other words, in eight years the impact of shifting from free markets to government programs will cost the typical worker about \$8,000 of income a year in lost production. Over and above the loss in output, workers will find that progressively more of their income will take the form of additional government services.

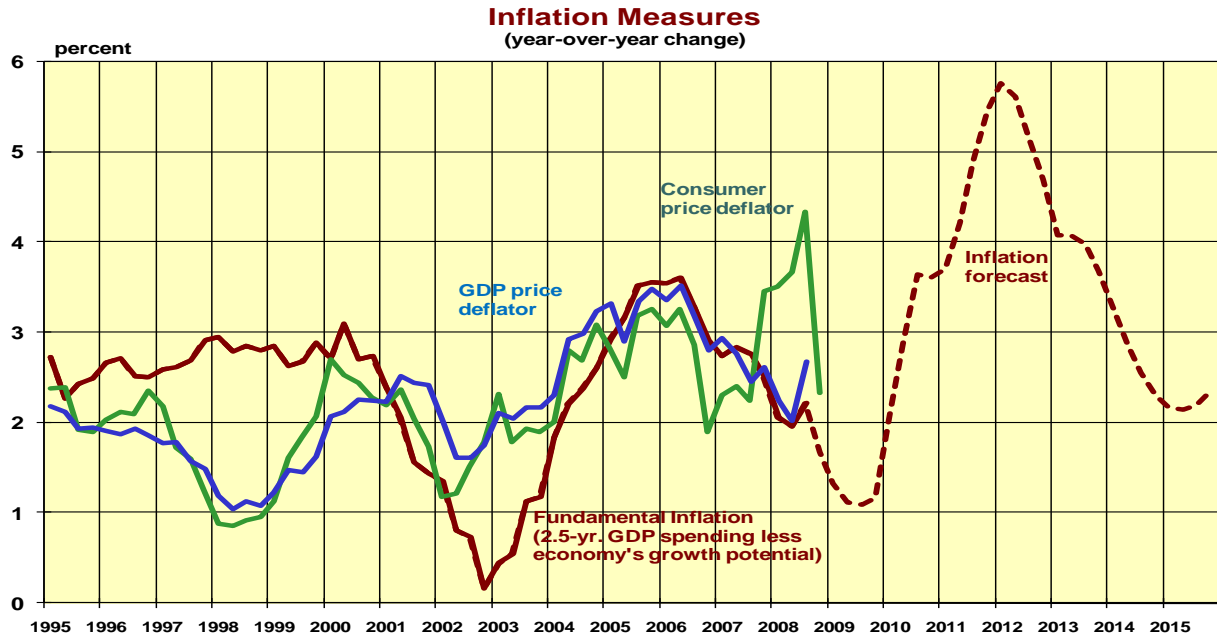
There are serious problems with efforts to increase government programs over the next eight years. As baby boomers retire, the demand for spending on Social Security and Medicare will soar. These demands alone are sufficient to absorb much of the expected increase in output. Expanding government commitments beyond those already made will involve replacing traditional investments in plants and equipment and research with hypothetical ones favored by politicians.

Slower productivity growth will produce frustration over the failure of living standards to increase. This will mean constant pressure on the Federal Reserve to make sure it is producing a sufficient amount of new money to maximize spending and output. Such pressure will make it increasingly difficult for the Federal Reserve to contain inflationary pressures.

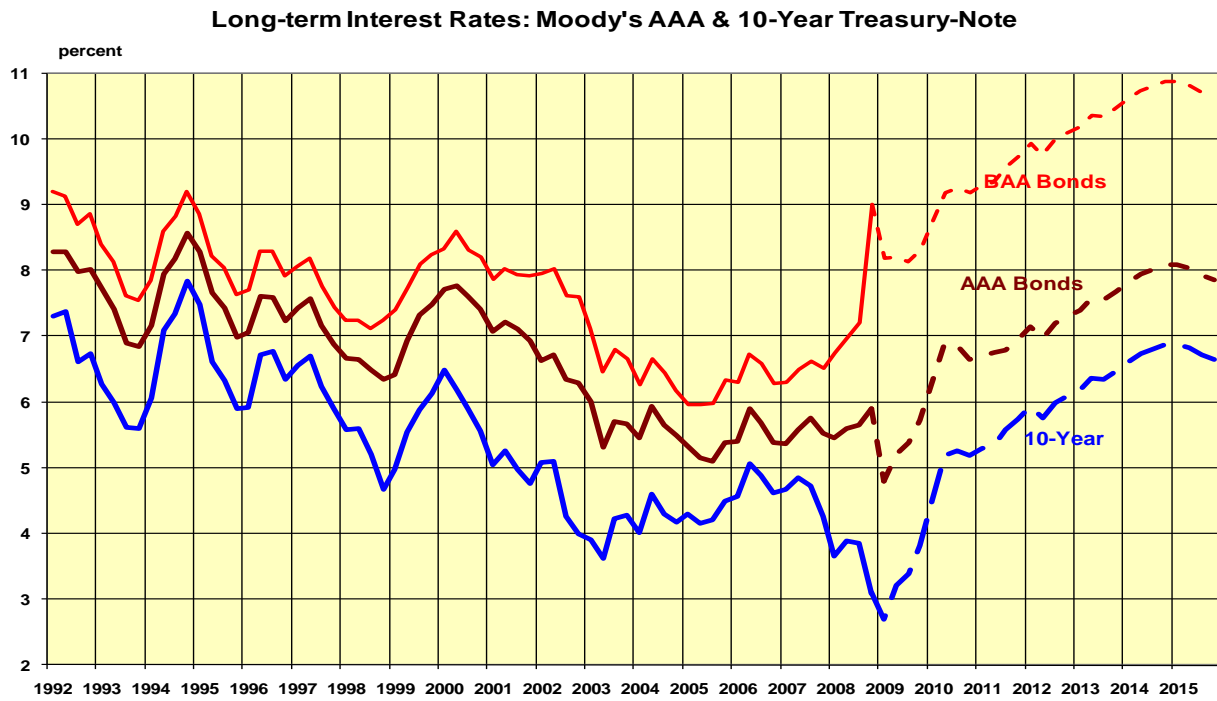
As with estimates of future productivity, those for monetary policy are highly speculative. Nonetheless, just as there is an overwhelming case that productivity growth will slow, there is the same overwhelming case for expecting that monetary growth and current dollar spending will be greater than it has been over the past decade.



When current dollar spending exceeds the economy's ability to produce goods and services it leads to inflation. Sharp increases in current dollar spending will produce higher inflation. As with all other projections, while the direction appears fairly certain, the precise extent of inflation is speculative.



As inflation moves higher, interest rates will follow. The following chart suggests that not only will rates rise in response to higher inflation, but as government borrowing crowds out all but the highest quality borrowers the availability of credit will be very expensive.



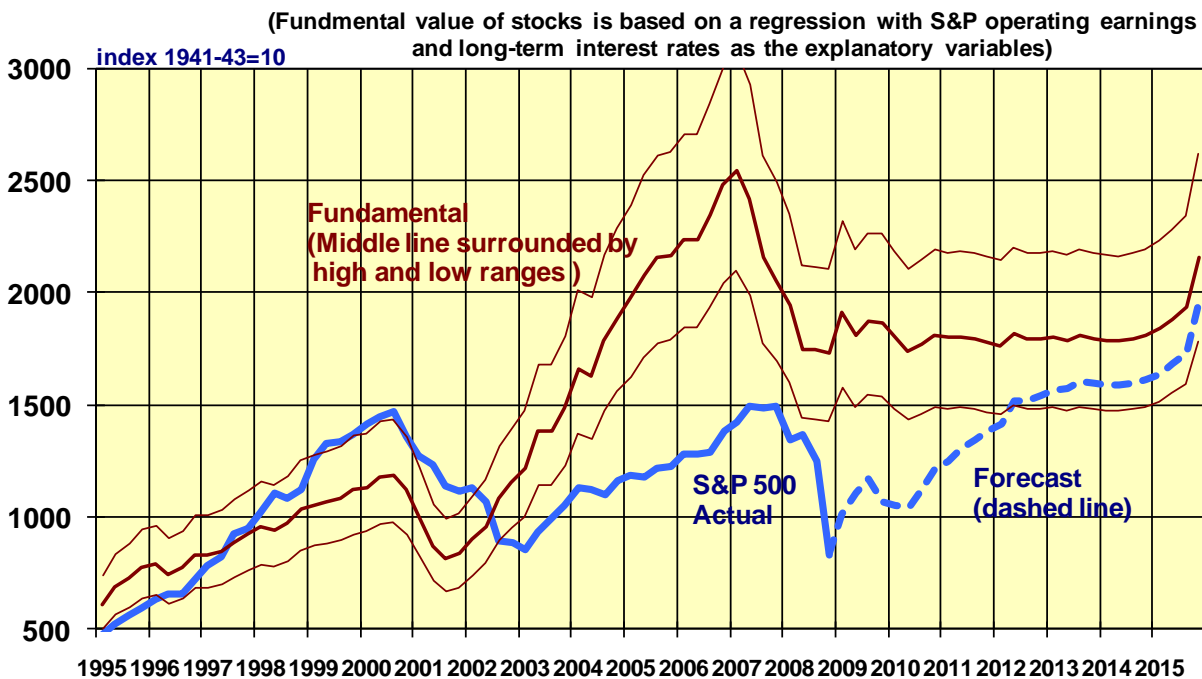
Stock Prices

The collapse in stock prices this past year reflects the financial crisis brought on by the policy mistakes of the past year. While the Fed appears to be in the process of correcting for its overly restrictive monetary policy, the correction itself contains the seeds for future problems. In addition, the move away from relying on markets and toward greater reliance on political pressures to allocate resources has various implications for stock prices.

Over time the value of stocks is determined by the discounted value of expected future earnings. The three components that go into valuing the market are expected profits, interest rates and the risk premium that investors associate with holding stocks. For most of this decade profits have been strong and interest rates have been lower than in previous decades. However, a 40% drop in stock prices at the beginning of the decade and the recent 40% drop this past year have significantly raised the risk that investors associate with holding stocks. This means that even if profits were to rise sharply and interest rates were to remain low, investors are likely to place a significant risk premium on owning stocks.

The chart below shows the fundamental value of stocks based on movements in profits and interest rates, but holding the risk premium constant. The failure of the fundamental value of stocks to rise in the period ahead is due to the impact of rising interest rates offsetting the growth in profits. The relatively modest rise projected for stock prices in the years ahead suggests that investors will be inclined to continue to place a fairly large risk premium on stocks. This is particularly true given the major economic changes anticipated by the new Administration in Washington.

Stock Prices: S&P 500



The Limits to Government & Hope for the Future

Although government policies brought about the collapse in economic activity over the past year, there is a widespread belief that only government can solve the nation's problems. The tendency to turn to government for salvation has existed ever since the Great Depression. Those who are not familiar with the policy mistakes that created and then prolonged the Depression believe that somehow government policies helped the economy. As a result of this belief, there is an instinctive reaction to turn to government whenever economic problems appear.

The analysis presented earlier shows how government policies played every bit as much a role in the current financial crisis just as they did in the 1930s. However, conditions today are vastly different from the 1930s. Today, government has become far more powerful in terms of directing resources and credit throughout the economy. The damage to those unable to get credit more than offsets any gains from those who benefit from the government's actions.

In his fascinating book, *In Our Hands*, Charles Murray lays out the immense cost of welfare programs (including Social Security and Medicare). He shows how the incredible inefficiency of government produces so much waste that *everyone* would be far better off if the money government spends on these programs were simply redistributed to individuals in the form of grants.

As the cost of government grows, so does its ineffectiveness. Murray believes that government's ineffectiveness at solving basic problems combined with its rapidly rising cost will produce a pressure for a major restructuring of government programs. This restructuring would replace countless government programs (along with the bureaucracy that runs them) with grants that will enable all adults to provide for their own basic needs. The massive increase in government programs this past year and the promise of far more to come should hasten the day when the public recognizes the futility of relying on government to solve its economic problems.

Conclusion

As in the past, government policy mistakes have led to a serious recession. The Federal Reserve spent more than a year limiting the creation of bank reserves while claiming that it was creating liquidity. Inept actions by the US Treasury created additional problems for financial markets.

For the next few years the economy will experience a wild ride. Following the collapse of spending in 2008 the economy will experience a dramatic and seemingly spectacular surge in spending in 2009. Most observers including those at the Fed are warning of an extended period of weakness. They will be as surprised at the turnaround in economic activity in the year ahead as they were over the collapse in activity this past year. They will also mistakenly attribute the improvement in the economy to government fiscal policies.

The increase in spending will represent a welcome change for the economy. However, the odds are fairly high that spending will be far stronger and last far longer than anyone would desire. At the same time that spending is increasing rapidly, the adverse impact of destructive fiscal policies should reduce the economy's potential for real growth. This combination will reverse the current downturn in both inflation and interest rates.

Stock prices and gold prices are likely to rise in advance of the improvement in spending. The spread between short-term and long-term rates should increase. Once the surge in spending becomes obvious, the Federal Reserve will begin to remove the massive surplus in bank reserves. In the process, interest rates are likely to move sharply higher. Just as it played a key role in the current recession, the Fed will play a key role in the unstable recovery that lies ahead.

One strategy for dealing with the upcoming cycle is to purchase stocks in an attempt to benefit from the first stage of the cyclical upturn. However, as the Fed turns from stimulus to restraint, equities may again become vulnerable. Another strategy would be to buy gold or an index fund (GLD) that tracks gold prices. A problem with buying gold at this point is that it remains far above its fundamental value and could fall substantially before recovering.

As for the future of the US economy, the main hope for strong, stable growth lies with Charles Murray's thesis. At some point the public will have to recognize the limits to what government can effectively accomplish. This could become progressively more apparent as President Obama relies more than ever before on government to solve various problems. As government spends progressively more and as the problems become progressively worse, it should become apparent that real solutions involve a dramatic restructuring of economic policies—a restructuring that relies more on individuals and less on government to create prosperity. While we're not yet to that point, the current and prospective binge in government spending means that such a restructuring may come sooner than we think.

12/23/2008	Actual		Forecast					Annual average
	2007	2008	2009	2010	2011	2012	2013	2008-2013
GROSS DOMESTIC PRODUCT	13808	14319	14600	15794	16717	17805	18619	
%ch	4.8	3.7	2.0	8.2	5.8	6.5	4.6	5.4
REAL GDP	11524	11690	11747	12468	12728	12903	12952	
%ch	2.0	1.4	0.5	6.1	2.1	1.4	0.4	2.1
CHAIN PRICE INDEX	1.198	1.226	1.244	1.269	1.317	1.384	1.442	
%ch	2.7	2.3	1.5	2.0	3.8	5.1	4.2	3.3
CPI- ALL URBAN	2.073	2.168	2.218	2.270	2.364	2.495	2.610	
%ch	2.9	4.6	2.3	2.3	4.2	5.5	4.6	3.8
PRETAX PROFITS ADJ (1)	1642	1514	1427	1647	1735	1843	1954	
%ch	-1.6	-7.8	-5.8	15.4	5.3	6.3	6.0	5.2
AFTER-TAX PROFITS ADJ(1)	1192	1115	1028	1186	1250	1328	1408	
%ch	-0.6	-6.5	-7.8	15.4	5.3	6.3	6.0	4.8
PRODUCTIVITY	1.37	1.41	1.43	1.46	1.48	1.50	1.51	
%ch	1.4	2.7	1.6	2.2	1.3	1.2	1.0	1.5
UNEMPLOYMENT RATE	4.6	5.8	6.4	6.0	6.0	6.0	6.0	6.1
Potential Real GDP	11706	12029	12293	12515	12707	12898	13091	1.7
Actual as a percent of Potential	98.4%	97.2%	95.6%	99.6%	100.2%	100.0%	98.9%	98.6%
M2 %ch at annual rates	5.7	5.9	5.2	3.1	4.9	6.2	3.9	4.7
Mg %ch at annual rates	3.2	5.9	8.1	3.0	4.5	6.5	4.2	4.9
MORTGAGE RATES	6.3	6.0	5.7	7.1	7.2	7.6	8.0	7.1
10-YR GOVT SECURITIES	4.6	3.6	3.2	5.0	5.4	5.9	6.3	5.2
2-YR GOVT SECURITIES	4.4	1.9	0.7	3.0	3.7	5.4	6.6	3.9
PRIME RATE	8.0	4.9	3.5	5.9	6.6	8.3	9.5	6.8
FEDERAL FUNDS RATE	5.0	1.9	0.5	2.9	3.6	5.3	6.5	3.8
STOCKS:								
S&P 500	1477	1203	1091	1107	1322	1500	1586	5.7
S&P 500 operating earnings/share	82.5	64.8	65.8	74.1	75.8	78.5	81.2	4.6
S&P 500 p/e	26.5	26.4	25.0	22.0	24.9	26.6	26.5	25.0

(1) Profits adjusted to exclude inventory profits and to allow for depreciation at replacement cost

Data for GDP are in billions of dollars