

Quarterly Economic Discussion

Q4 2009



Economic Output

After four consecutive quarters of GDP contraction, it is likely that the recession has officially come to an end. Gross domestic product expanded 3.2 percent annualized over the third quarter. This coincided with the recovery of the ISM manufacturing and service industry indices which crossed into expansionary territory over the summer indicating output expansion. New housing construction seems to have hit a bottom and housing activity added to growth in the third quarter. It is likely that the National Bureau of Economic Research will eventually declare the recession to have ended around this past July.

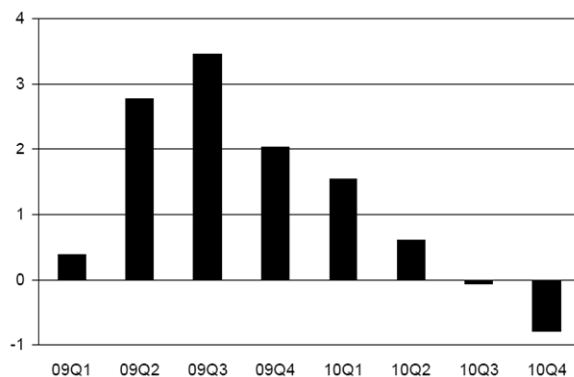
The credit market shocks have passed and risk spreads have eased to the point of returning to what could be seen as “normal.” The Fed has moved through various tools to greatly add liquidity and the TARP has shored up the capital positions of many banks. These measures, along with reduced market anxiety, have allowed funding markets to operate more effectively. These steps have helped lead to a wave of mortgage refinancing and have helped to put a floor on home sales and prices.

However, though economic recovery may have technically begun, activity is not yet back to full health, and many headwinds and imbalances still exist that will likely dampen growth moving into the near to intermediate future. The private sector is continuing a process of deleveraging. Consumer credit outstanding has declined for eight consecutive months as households have reduced their debt relative to income. Therefore, the savings rate has increased significantly since its lows of recent past years, and this is causing a drag on consumption. Fiscal and monetary policies have aimed at countering this effect through large public deficits, very expansionary monetary policy, and various other measures designed to spur consumption.

Much of the growth of the third quarter can be attributed to both increased auto sales due to the Cash for Clunkers program as well as improved residential investment spurred by the home buyer tax credit. These programs along with the stimulus package as a whole have created a significant temporary boost in output. Though the extent to which the stimulus has been effective is definitely up for debate, it’s pretty evident that it has had at least some effect on aggregate demand. Moody’s Economy.com has estimated that the stimulus package contributed over 3 percent to GDP growth in the third quarter, essentially on net the entirety of new activity. Breaking down the components of GDP, about a full percentage point of growth was due to auto sales, supported by the Cash for Clunkers program. Sales have since fallen off and will not be a source of growth going into the fourth quarter. New home construction also contributed a large portion of over one-half point to growth.

As a whole, the added fiscal support peaked over this period and the effects will taper as quarters move forward. Without the benefit of the Cash for Clunkers program and the effects diminishing household credit availability, it is likely that households will resume their upward trend of increasing

Estimated Stimulus Contribution to GDP
Annualized Percentage Points by Quarter



Source: Moody's Economy.com

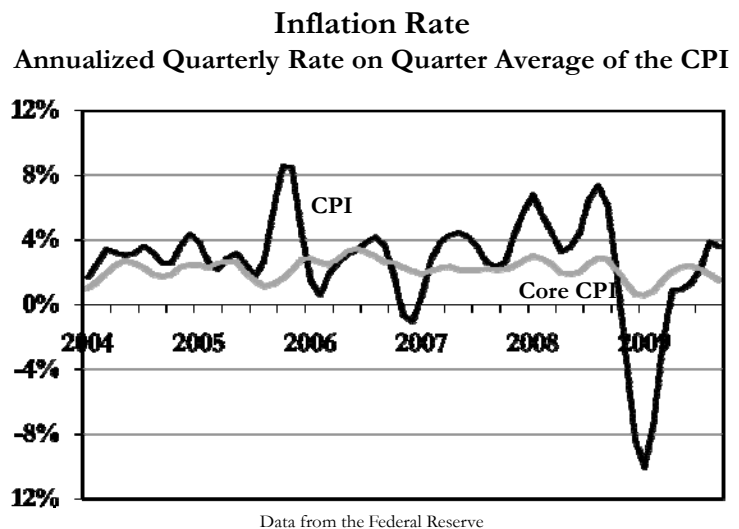
savings. Household balance sheets are still weak and, with high unemployment, income growth is minimal. It is unlikely that the consumer will be able to come roaring back to life any time soon. Most estimates of GDP growth moving forward foresee the next number of quarters approaching 3 percent. In comparison, after the last severe recession, in the early 80's, there were multiple quarters of growth in excess of 7 percent. The likelihood of a strong V-shaped recovery where excess productive slack is quickly utilized is therefore not very likely.

There also remains a downside risk with regards to the housing markets. Historically low interest rates mixed with fiscal support through the buyer tax credit could have artificially placed a bottom on home prices and sales. When the credit is finally allowed to expire and the Fed does begin to tighten either because of inflationary concerns or a return to stronger growth there may be a second slide in home prices, or at least in real terms. This would likely set off another round of foreclosures and further erosion of household balance sheets, hurting consumption further. This coupled with rising energy prices yet again, driven by a slide in the dollar could add up to create a “double dip” and drive output back into contraction.

The good news is that though there remains a lot of productive slack as capacity utilization is low. Firms do not hold a lot of excess inventory and, as demand returns, output will have to grow. Inventory accumulation was a positive contributing factor to growth in the third quarter, adding 0.9 percent. International trade has also increased greatly off of its lows of last spring, as global activity, particularly in Asia, has rebounded. The weaker dollar will also have the effect of giving a boost to exports, helping to counteract slack in the consumer market; however, so far any additions to exports have been countered by the increased imports due to rising crude prices.

Inflation

In recent years, consumer price inflation has been highly variable, primarily due to dramatic changes in oil and other commodities prices. For years, headline inflation indicators were driven higher by surging energy and other commodities prices. The Consumer Price Index rose to a year-over-year peak of 5.5 percent by July 2008. Meanwhile, core inflation (excluding food and energy) while less extreme, rose to 2.5 percent year-over-year by that month as measured by the Core-CPI index. Since then, as general economic activity sharply contracted, inflationary measures have reversed course, with the change in the CPI going negative on a year-ago basis.



The Federal Reserve, however, focuses on the Personal Consumption Expenditures (PCE) measure of inflation. Just as with the CPI, on a year-over-year basis, the PCE deflator, peaked in July 2008, jumping to 3.5 percent. Core PCE prices, less food and energy, peaked at 2.4 percent from a year prior.

Since that time, however, contraction in global economic activity and lower commodities prices exerted downward pressure on prices. In September, the CPI rose 0.2 percent, but from a year prior, it was still 1.3 percent lower. This last year or so has been the first time the CPI was negative year-over-year since 1954. The Fed's preferred measure, the core PCE deflator was 1.3 percent higher on a year-ago basis.

Moving forward, core inflation is likely to remain tame in the near term. Though commodity prices have rebounded somewhat, slow economic activity has continued to put substantial downward pressure on prices. Capacity utilization remains low, indicating high levels of excess productive slack. As the third quarter showed, increased demand is being met by utilizing this capacity, not by increasing hiring. As a result, labor productivity has been surging and this keeps pressures on prices down. Even when firms move back to employing additional workers, the high level of unemployment will limit workers pricing power for quite some time. Inflationary pressures from the labor markets will be virtually non-existent as long as inflationary expectations remain relatively anchored.

Although high inflation is not expected, concerns remain about future inflation, and this could be the one factor that would lead to higher inflation in the intermediate term as well as an early monetary policy response if it gets out of hand. For now however, expectations are relatively modest. The one-year expectation, as measured by the University of Michigan's Consumer Sentiment Survey, fell to 2.0 percent last January, from readings above 5 percent in May 2008 through July 2008. Since January, expectations have risen off their lows, but remain subdued. In November, the one-year outlook was 2.8 percent while the five-year expectation was 3.1 percent.

Looking beyond this year, the current inflationary outlook is more uncertain. It is unknown what impact the current highly expansionary monetary and fiscal policies will have on inflation once aggregate demand begins to pick up and investor and consumer behavior return back to normal. Also, what happens to interest rates in an environment with high public deficits once the Fed ends its direct purchasing of debt securities?

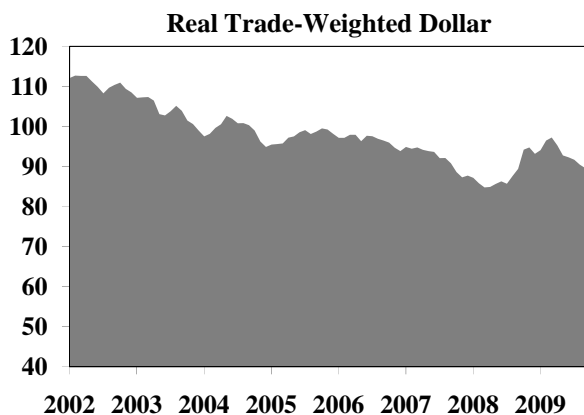
The Fed will have to be very careful moving forward as there is great potential for a large increase in the money supply and the associated inflationary pressure if these reserves are not soaked up quickly when the time is appropriate. Fortunately, with the Fed's new power to offer interest on reserves, it has an additional tool to manage these funds and limit their impact on money supply growth. However, this is limited to where the Fed Funds rate is set, and, as with other monetary policy actions, there is a large time lag between policy moves and their effects. Complicating this effort is the likelihood of sustained very large federal deficits moving into the future, which may cause significant upward pressure on interest rates. The political realities of fiscal policy may also make it difficult for Congress to change direction on short notice if such future policy action is merited. There are currently massive potential inflationary pressures building that could lead to higher inflation rates a couple of years into the future, if not managed correctly and in a timely manner.

Another cause for concern is what happens to the dollar, which had previously strengthened on the recent “flight to safety” and has helped to hold back inflation and keep interest rates low. Since March, however, the dollar has weakened significantly and with it a rise in commodity prices has occurred. Will this continue and make Treasuries less appealing? This is particularly relevant in the light of the major increase in issuance of new public debt, which will have to compete in the capital markets.

As the economy strengthens, the deflationary counterbalance will dissipate and the Fed may have a tough time controlling inflation. Our recent experience has shown just how quickly the inflationary environment can change. In less than a year’s time, concerns of elevated inflation quickly turned into ones of deflation. This could very well reverse yet again.

Value of the Dollar

After trending downward since the beginning of the decade, the value of the U.S. dollar has been through a volatile ride over the past two years. The dollar hit a low in March 2008, falling 27 percent from its peak in 2002, as compared to an inflation-adjusted, trade-weighted basket of currencies. However, for about a year starting in March 2008, the dollar strengthened considerably against many major currencies. This was primarily the result of foreign central banks easing and a “flight to safety” in U.S. Treasury bonds amid financial turmoil. From its low, the dollar rose 13.1 percent by March 2009 in real terms against the trade-weighted index.



Data from the Federal Reserve

Since March however, the dollar has resumed its slide and has now approached its recent lows of mid 2008. Over this period, the dollar has fallen 11.8 percent. As the “flight to safety” continues to unwind, the dollar has continued to slide. In fact, though treasury demand remains strong, a competing force on the dollar has begun to occur. There is now a significant dollar “carry trade” occurring, where market participants borrow dollars, and then exchange them for foreign assets, driving down the value of the dollar. Foreign housing and equity markets have seen price appreciations greater than those in the U.S. and this is likely, at least in part, due to this effect.

With the flight to safety lessening, fundamentals now begin to shape the dollar valuation more greatly. Very low interest rates, even relative to other nations, have exerted downward pressure. The falling of the dollar has also caused increases in oil prices and therefore the current account deficit is beginning to rise again as the net outflow of dollars increases.

Furthermore, apprehension with regards to fiscal and monetary policy is likely having an effect. In order to provide liquidity and address key financial markets, the Fed has already doubled the

monetary base. The Fed's approach to timing and the strength with which it tightens will determine whether or not its policy adds to inflation, further devaluing the dollar.

On the fiscal side, will global demand for U.S. Treasuries keep up with the massive amounts of new debt being issued? The Federal deficit came in at \$1.42 trillion this past fiscal year and estimates for the current one approach a similar magnitude. This is particularly relevant due to the fact that the reciprocal to the trade deficit, the capital surplus, has shrunk drastically in the past year and a half. Foreign net purchases of long-term Treasuries are already well below where they were a couple years ago. This, combined with the relatively low personal savings rate, hints that it may not be a coincidence that the Fed has included long-term Treasury debt in its direct purchasing programs. Monetizing debt cannot continue indefinitely without having repercussions on the value of the dollar. Seeing this, at some point will market participants' appetite for Treasuries begin to diminish?

Housing Markets

Sales of new homes peaked in July 2005 starting nearly a three-year slide in housing construction. The sector continues to struggle along with the economy; however, significant improvement has occurred over the past half year. The average pace of single-family existing home sales rose from 4.1 million in the first quarter of this year to 5.3 million in the third quarter (seasonally adjusted annual rates). Though still low by historical standards, this was the fastest pace of sales since the first half of 2007.

Demand for new homes has also firmed. New home sales averaged 339,000 in the first quarter of 2009 but were up to 410,000 by the third quarter. However, much of the recent increase in both new and existing home sales is likely driven in part by the temporary first-time buyer home tax credit. Though this was extended and will continue to have an effect in boosting demand for new home sales, it is likely that this creates a bit of un-sustainability in both sales and price. When the credit ends, this demand support will end and sales and prices will likely fall off somewhat or at least weaken relative to where they would have been with the continuation of the credit.

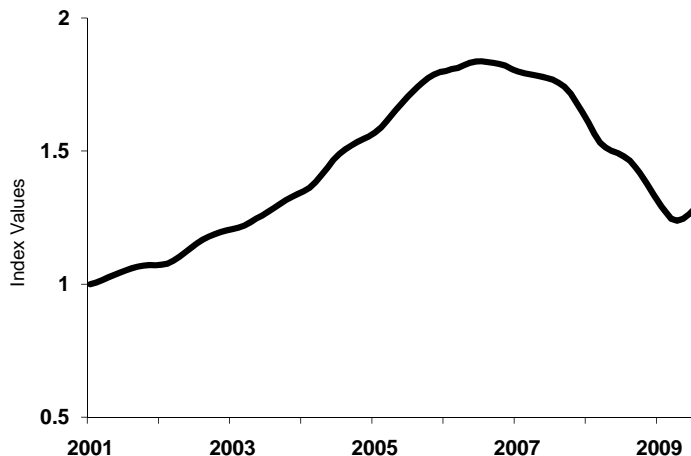
Still, the fact that these figures show firming sales growth is very encouraging in the face of uncertainty among home shoppers as to when home values will start to rise again, tightening credit among mortgage lenders, and conservative appraisals. Moreover, while the gains reflect a significant amount of clearing out of inventories, foreclosed homes and short sales, this step is necessary before broad recovery can take place.

The result is that homebuilders are disposing of their stocks of properties for sale. The total inventory declined from a high of 572,000 in July 2006 to 253,000 in September. At the current sales pace, it will take 7.5 months to clear this inventory – a clear improvement from an all-time high of 12.4 months last January. This inventory rate will fall towards more normal levels (historically between four and five months) if the sales pace continues to rise and inventories continue to decline.

Of course, the most important indicator of recovery will be stabilization in home prices. Since the late spring, that appears to have happened. Overall, the S&P/Case-Shiller Home Price Index of home values nationwide was still down 11.3 percent in August from a year earlier and 32.3 percent from the peak in July 2006.

However, the nationwide index rose in August on a non-seasonally-adjusted basis for the fourth consecutive month. Also encouraging, price stabilization has been broad-based with most metropolitan areas showing appreciation. The question, however, is whether this is a true bottom or whether prices will resume their declines once the tax credit comes to an end and interest rates start moving up on Fed tightening.

Case-Shiller Home Price Index



Source: Standard & Poors

Also uncertain is whether there will be a second round of foreclosures. Though most subprime mortgages have gone through resets, a large class of Alt-A adjustable rate mortgages still remains awaiting resets this year and next. The effect could continue to put pressure on the amount of foreclosures and mortgage delinquencies. Furthermore, foreclosures are no longer simply a subprime issue, since general economic weakness and corresponding layoffs have triggered a higher amount of foreclosures. However, mortgage rates have come down sharply due to Fed action and this will help ease this shock relative to the past subprime reset wave.

Labor Markets

National unemployment topped 10 percent in October for the first time since 1983, reaching 10.2 percent. In comparison, the rate topped out at 7.8 percent following the 1990-1991 recession and 6.3 percent after the 2001 recession. The unemployment peak normally comes some time after a recession ends – 15 months after 1990-1991 and 19 months after 2001. The recession likely came to an end over the summer months; therefore, a disturbingly higher unemployment rate appears inevitable. The unemployment rate will likely peak sometime in mid 2010 somewhere between 10.5 percent and 11.0 percent. To make a comparison, the unemployment rate peaked at 10.8 percent in 1982.

Payroll employment has now declined for 22 straight months. Job losses began to accelerate from late summer 2008, to an average pace of about 700,000 monthly during the past winter months. Since that time, though, payroll employment has continued to decline, the pace of job losses has moderated to a rate of about 200,000 in recent months. A total of 7.3 million jobs have been eliminated since the current downturn began in late 2007 – 4.2 million this year. Again by comparison, 1.8 million jobs were lost in the 1990-1991 recession and 1.4 million in the 2001 recession. Weekly unemployment claims have followed a similar trend as payroll losses. They

trended upward through early 2009, peaking at about 670,000 per week at the end of March. Since then, the pace has steadily declined, but still remains high at about 500,000.

Though labor markets are likely to remain very weak, with continuing job losses and rising unemployment rates, the worst deterioration seems to be over, and job losses are moderating. Another positive is that, unlike in the 2001 recession, there is not an excessive level of business inventories.

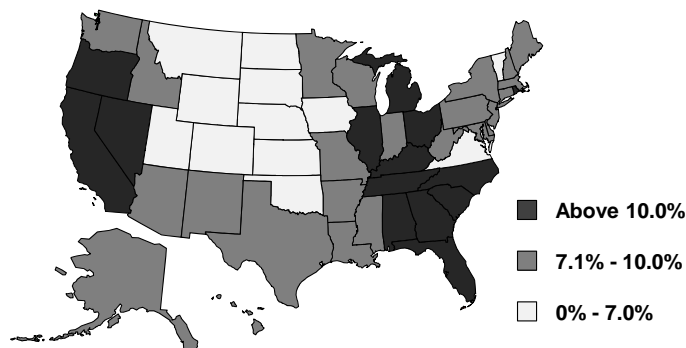
Once growth does resume, the lag between output and employment growth may be shorter than before, as firms will have to ramp up production to meet demand. However, this may be partially offset by very low capacity utilization rates, as firms have very large amounts of productive slack at their disposal. Evident of this, labor productivity has been surging in recent months, jumping 9.5 percent annualized over the third quarter as output has expanded. So far, firms have been able to meet increased demand through productivity gains rather than increasing their labor forces, and there appears to still be significant productive slack for firms to work with. The prospect of near term job gains is further harmed by the fact that local and state governments, which had been supported by the stimulus bill, are now finding themselves reducing their payrolls, since many states are in the midst of a budget crisis. Public employment, which had been one of the few areas of growth over the past two years, is no longer a support.

A positive indicator however, is that temporary help jobs have risen for three consecutive months. This usually acts as a leading indicator for general employment changes, as firms often seek temporary help prior to moving to expand their permanent payrolls. However, it will take a couple more months to confirm this trend and determine whether the growth in temp help is, in fact, indicative of general labor market improvement or whether this was due to temporary production increases in the auto industry related to the Cash for Clunkers program.

Any prediction of a return to job growth has to be tempered by the fact that growth is likely to be moderate in the foreseeable future. As discussed earlier, unlike in past deep recessions, where GDP growth robustly rebounds, it is likely that growth will be moderate next year due to continued weak support on the part of the consumer. There were multiple quarters of GDP growth in excess of 7 percent following the 1982 recession, and after 3 years, the unemployment rate still fell only 3 percent. It is therefore unlikely that, even with a return to growth, unemployment will fall substantially any time soon. Unemployment in excess of 9 percent is likely through the end of next year. If historically normal job growth rates exist in upcoming years following the recession, the unemployment rate will not be back down to 5 percent until at least 2016.

Unemployment Rate By State September, 2009

September National Rate, 9.8%

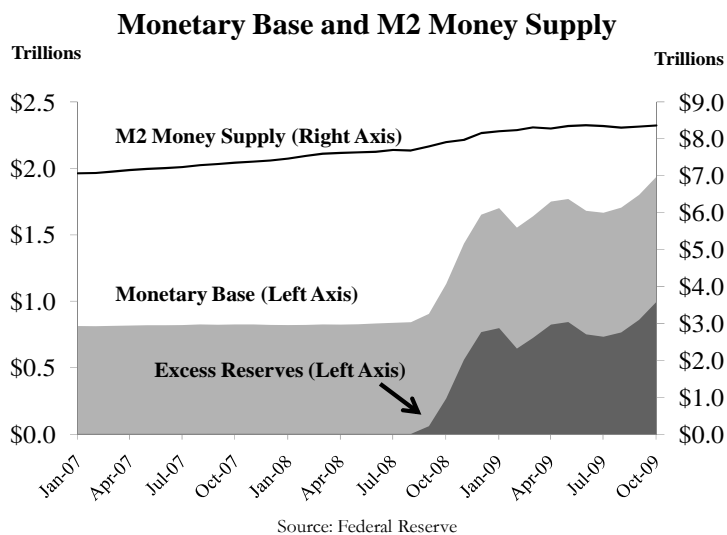


Source: Bureau of Labor Statistics

Monetary Policy

With a historically low, unprecedented Fed Funds target rate of near zero percent, the Fed found itself in uncharted territory. Traditional policy tools essentially came to an end and there was little more that could be done in the traditional regard. The Fed, therefore, began a policy of quantitative easing. Through open market operations and other new facilities, the Fed has used its balance sheet to control money supply growth directly, while finely targeting liquidity for specific institutions and sectors.

This new form of Fed policy has had the effect of greatly increasing the monetary base, more than doubling it since the summer of 2008. Broader money supply as measured by M2 has grown significantly, rising almost 9 percent over the same period, but the pace of growth has slowed in recent months. However, this increase would seem to be very small in relation to the doubling of the monetary base. Thus far, this has been due to the fact that the bulk of the increase has occurred via excess bank reserves held at the Fed, and therefore have not been multiplied through the fractional banking system. This trend has only accelerated in recent months. Since the end of the second quarter excess reserves have risen 45 percent. This potentially complicates matters when the Fed does move to soak up excess liquidity.



With signs of recovery and output growth now apparent, the question becomes the Fed's exit strategy. With high and still rising unemployment and lower home equity, households have moved to increase rate of savings to repair household balance sheets. Though this trend is required in the long-run to bring about some greater balance in the system, this comes at the effect of suppressing household consumption and reducing aggregate demand in the short-run. Therefore, monetary and fiscal policies have been targeted towards combating this shift through direct support of purchases and through extremely low interest rates. This high level of liquidity and fiscal support has helped to put a price floor on home values as well as help drive a large rally in equities markets. This has helped to create "wealth effect" driven consumption, putting downward pressure on savings rates.

With this policy, however, the Fed finds itself in a continuing dilemma. On one hand, this highly expansionary policy is required to keep aggregate demand substantial as heavy deleveraging forces continue to exert downward consumption pressure. However, at the same time, there remains risk of stoking inflation, further weakening the dollar and perhaps prompting another unsustainable asset bubble as prices are driven up by added liquidity rather than the fundamentals of household incomes. The Fed and other global monetary policymakers are therefore hoping for two things: 1) that the rise in asset prices will be substantial enough to offset the deterioration in household incomes, and 2) that economic activity driven by this added liquidity will be able to be transitioned

out smoothly once a general rebound in economic activity causes lower levels of unemployment and higher income growth.

When and how exactly the Fed reverses its policy is a matter of significant market apprehension. The Fed has given hints in its recent statements. Its most recent release stated that conditions continue to "warrant exceptionally low levels of the federal funds rate for an extended period." This phrase has been repeated in every statement since March, but as the Fed now begins to wind down its direct purchase programs, that language may soon be tweaked. It is still unlikely that the Fed will move to tighten any time soon. The Fed funds futures markets do not anticipate the Fed moving to raise rates until sometime in the late summer of 2010.

In its statement, the Fed has also outlined the conditions it is focusing on with regards to maintaining low rates. Conditions include low resource utilization, softening inflation, and stable inflation expectations. The primary drivers are unemployment and excess capacity utilization, both of which remain high. However, the Fed recently attached inflation expectations to the list. This suggests that if expectations begin to expand, the Fed could move to tighten well before general improvements in unemployment. With a weakening dollar, massive fiscal deficits, and rallying gold prices, there is a distinct possibility that inflationary expectations could expand and that the Fed is aware of this and willing to combat this even at the expense of employment. Whatever the course of action is over the next year, there remains a high level of uncertainty, leaving the Fed a very difficult task ahead.