



ATLANTIC CAPITAL MANAGEMENT

THE FED HITS THE GAS

Velocity Pushes Higher and Inflation Accelerates

SPECIAL INVESTMENT RESEARCH REPORT
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INTRODUCTION

THE FED HITS THE GAS

Velocity Pushes Higher and Inflation Accelerates

The subtitle of our November 2007 Special Report was “A 1930’s style bank run brings us to 1979”. That phrase was somewhat disingenuous on two counts. The 1930’s style bank run was really more of a 21st century phenomena, but mentioning that period elicited images of hundreds of depositors standing in the rain for a bank to open, a la “It’s a Wonderful Life”; a compelling image that conveys the seriousness of a symptom of economic distress that was not fully realized back in September when it happened (it still has not been given its proper significance). The second literary license in that subtitle was the reference to 1979, a year in which the Federal Reserve had an amazingly difficult choice. It could tighten monetary policy to try to resolve the inflation crisis knowing full well that economic growth would suffer, and unemployment would increase dramatically. That could not have been an easy decision – throwing millions of Americans out of work with no guarantee of success.

Our current crisis is not quite to the proportions of that subtitle, but the implication, and thus the use of the exaggeration, is that a repeat of those difficult times are very possible. The banking crisis that has now claimed a large US institution (Bear Stearns) as well as a large British bank (Northern Rock) and two large German banks have convinced some that we are now faced with circumstances rivaling the deeply troubling climate of the early 1930’s. There is enough evidence to make the claim that the Federal Reserve is now staking its entire reputation on rescuing the banking/credit system to avoid what the 1930’s Fed did not – a depression. And it is doing so regardless of inflation.

While we focused on the year 1979 as a reference for the inflation portion of the debate, it may have been more accurate to use 1968. That year had much more in common with 2008 than 1979. By 1968 inflation had already run beyond the grasp of benign policy adjustments. Mistakes in policy and fundamental misunderstandings led to a worsening climate.

That is where the parallel to today fits best. The Fed currently believes that weakening demand from an economic



contraction will reduce inflationary pressures (as we suggested in our March 2008 report). It was once widely believed that there was a simple trade-off between inflation and unemployment – the Phillips Curve. In order to reduce the level of inflation the Federal Reserve and/or the Federal Government slows the economy, increasing unemployment. Once unemployment increases and inflation falls policy can be shifted back to allow for full employment. But that trade-off, at least in the long run, was thoroughly discredited in the 1970's (and again in the 1990's). The reliance on the Phillips Curve tradeoff, or shift, was one of the biggest mistakes in letting inflation get out of hand. And that was not the only mistake. The result was fifteen years of price instability and economic dysfunction.

That is why there is a reason to be concerned today. It took courage and leadership to end the malaise (seemingly) as well as a good understanding of the fundamental principles of the problem. There is enough evidence that the Fed in 2008 is lacking on both counts.

It may seem odd to be concentrating on one government agency within a vast globally connected economy but there is a reason to focus on the Fed. It controls the most powerful tool in the financial kingdom, the money press. History has shown that letting the press run too fast and too loose will ultimately lead to instability and dysfunction. It has only been twenty-eight years since that historical truth was reality.



Part 1 The Great Inflation

Seemingly so long ago, our current connections with The Great Inflation (1965-1982) share a mythology akin to the Great Depression. So many of us have only second, third, and sometimes more distant accounts of what actually happened in those time periods. In the translation much of the message and importance gets lost, and perhaps that is why so many hard-learned lessons will have to be hard learned again.

The story of the Great Inflation has been commandeered in political arguments and ideological differences to the point it has almost passed into mythology. Even those that lived through it sometimes remember only the bigger events colored through those lenses. For those of us investors and economists trying to tell our own future remembering a past narrative is always appropriate. In 2008 the narrative of the Great Inflation seems to be the most appropriate.

Before diving into the data some background is in order. The Federal Reserve of the 1960's would bear little resemblance to its 2008 descendant. An "independent" Fed back then was forced to coordinate with the Federal Government, specifically the Treasury Dept., through the 1946 Employment Act. The bill required the Federal Government to "promote maximum employment, production, and purchasing power."¹ It was passed at a time when the Great Depression was still fresh in everyone's memory and there was real danger of a severe economic contraction as a result of demobilization from World War II (there was a recession in 1947 and again in 1949). The framework for the bill was a Keynesian understanding that fiscal policy could promote stability through a tradeoff between inflation and unemployment (the Phillips Curve) – as an economy approaches full employment competition among employers and relative labor power will lead

to higher wages that are passed on to consumers as higher prices.

By the early 1960's unemployment was the primary concern of policymakers, economists, and even the public. After all, the economy had survived several inflationary periods without prolonged economic damage – the last one through the first year of the Korean War. It was conventional wisdom that the price of full employment was some inflation and that moderate inflation was desirable. The big tool of economic stability was fiscal policy – increasing or decreasing government spending and/or increasing or decreasing taxes. The role of the Federal Reserve was to coordinate that policy with the Treasury Dept.

The Fed used its monetary tools to affect an "even-keel" policy. When the Treasury needed to issue bonds the Fed would ensure that interest rates remained stable before and after the issuance. This usually was not a big problem since the Federal budget was not chronically in deficit. In that way the Fed would promote a stable money system to allow fiscal policy to work.

At the beginning of the 1960's the federal budget was in a surplus and the economy was growing steadily, inflation remained low. But unemployment was stubbornly high, hovering around 6% until 1963². President John Kennedy, in an effort to reduce unemployment, deployed a fiscal policy tool – he proposed cutting taxes and the Revenue Act of 1964 was enacted after his death. Just as the Phillips Curve predicted inflation began to rise as unemployment fell. By 1966 unemployment had fallen below 4% a level that not many policymakers thought possible. In 1965 the CPI went from 1% to 2%³. The reaction of the time was that it was the natural tradeoff and was to be expected.



1965 was a seminal year for other reasons as well. That year President Lyndon Johnson proposed his “Great Society” and an escalation in the Vietnam War. Both programs would be costly and Johnson wanted expansionist policies to pay for them. That meant no tax or interest rate increases, and increased deficits. Because the Fed was expected to coordinate policy it had to make sure the new Treasury issues were well received with stable interest rates by flooding the banking system with reserves.

There was some attention paid to the CPI doubling – Fed Chairman William M. Martin, Jr., found the inflation data troubling. But he felt his duty to coordinate with the Treasury more pressing, and President Johnson was insistent upon his expansionist policies. He was further hindered by his own FOMC board, there was no consensus on what the Fed could or should do, or even that the inflation issue merited response at all. Still a rate change was effected in late 1965 in the form of a half point increase in the discount rate to 4.5%⁴. The response to the increase was near universal condemnation of the supposed breakdown in coordination.

That minor rate increase was the only supposed breakdown in the coordination between Treasury and the Fed. Despite inflationary indications from member banks (businesses were accessing credit at incredibly high rates to finance capital projects to offset wage increases and productivity declines) the Fed continued to finance Treasury bond offerings that were unenthusiastically received. And that fact more than inflation was the largest reason for the rate increase of 1965. The Fed wanted to calm market turbulence to keep deficit financing viable.

What Chairman Martin really wanted was a tax increase to control inflation. Again, since fiscal policy was viewed as the only economic tool, he felt that it would be the

most effective. Others also called for a tax increase as early as 1965 to pay for the Vietnam War. But Johnson was stubborn and refused to budge on his preference for expansion, including eliminating the 25% gold requirement against banks’ deposit liabilities.

The rate increase from the Fed along with credit market rate increases caused by the money market dislocations from the debt issuances led to a softening economy in 1967, especially in the housing market. Unemployment only reached 4% but that was enough to elicit stimulus throughout the system. The Federal Reserve rescinded its 1965 rate increase and the Federal Home Loan Bank Board changed its reserve requirement for S&L’s, unleashing \$600 million (1968 dollars)⁵ in bank reserves available for loan. The stimulus worked and unemployment fell below 3.5%. Inflation, which had abated to below 2.5%, skyrocketed to over 6% by the end of the decade.

The tax increase Chairman Martin wanted was finally enacted in 1968. The 10% surcharge was applied to taxable income of individuals for nine months and to corporations for all 12 months. It did not succeed in slowing economic growth and by the second half of that year the Fed had raised its discount rate to 5.5% - a full point higher than the 1968 increase. By this time the inflation spiral had already taken hold – labor increases were routinely greater than the tax increase. Worse yet, businesses and consumers began to borrow for purchases to combat expectations of rising prices in the future. Businesses were also building inventory in anticipation of higher raw materials costs. Credit demand was so bad that there was a money squeeze at the end of 1968⁶ – another inflationary pressure.

Because unemployment remained close to 3.5% policymakers shifted to constrictive policies. The Fed brought the discount rate up to 6% and money supply contracted throughout 1969. There was a new



administration, Richard Nixon, and a new Fed Chairman, Arthur Burns, but the result was the same. Nixon and Burns wanted a gradual approach to inflation fighting while pursuing stimulative policies to combat rising unemployment. Inflation plateaued then slowly declined to 5.3% by 1971 – the Fed held the discount rate steady until October 1970. Even this middle of the road policy produced a recession – negative growth for most of 1970 – as the economy wound down the inventory stocks of 1968. Unemployment jumped to 6.1%, again the short-term Phillips Curve tradeoff.

While the gradual inflation fighting policy produced some results inflation was persistently high, persuading President Nixon to declare wage and price controls on August 15, 1971⁷. This effort was supposed to allow a stimulative monetary policy to end the recession and improve unemployment. From October 1970 until March 1971 the Fed lowered its discount rate from 6% to 4.75%. Money supply growth increased in early 1971 and unemployment peaked. The price controls seemed to work and inflation fell to 2.7% by June 1972. But much of the decline was on the back of chronic shortages that often accompany government intervention into the price mechanisms. And it was those shortages, not the success of the controls, that convinced the Nixon administration to remove them. The result: inflation resumed its spiral upward.

The Burns Fed did not abandon all hope of containing inflation though. At the end of 1972 it began a series of hefty rate increases from 4.5% to 8% on the discount rate. The increases did nothing to stop inflation (while they were increasing interest rates they were also increasing the money supply). Once again recession was the result and the Fed acted as it had in the 1969-1970 contraction, it immediately reversed course and dropped its discount rate. The oil embargo also occurred during this recession but the resulting spike in inflation was short-lived. When the economy recovered in late 1975

and early 1976 inflation was actually higher than when the recession started. The Fed provoked a recession to try to stop inflation but reversed itself in the middle and accomplished nothing.

Inflation continued to rise throughout the rest of the 1970's even though the Fed kept raising its discount rate and Fed funds targets. Those measures did nothing except reinforce inflation expectations. The real problem was the money supply growth – nothing was done to reduce it.

In 1979 another “oil shock” spiked inflation as the US embassy in Iran was occupied by Muslim fundamentalists. The CPI finally peaked in March 1980 at a ridiculous 14.76%. Some of that peak inflation was abated when oil prices eased but real success was finally reached in July 1983 when the CPI registered a 2.56% annual change.

The Great Inflation finally ended, or so it seemed (more on that later), because the Fed, under new management in Paul Volcker, belatedly decided to use monetary policy as a tool in the inflation fight. By doing so it also recognized a couple of fundamental problems that occurred during the 15 years of the Great Inflation. The first problem was a technical misunderstanding of the role of money supply in the formation and sustaining of inflationary pressures. Under its Phillips Curve understanding of the economy you simply traded unemployment for inflation, and vice versa. So when the Fed in 1969, and again in 1974, provoked higher unemployment with higher rates it thought that inflation would be contained simply by that tradeoff. Reversing policy back to stimulative was supposed to engineer a low-inflation soft landing. Instead it reinforced the idea that the Fed was always going to follow a full employment policy without regard for inflation (which **was** the Fed's stated goal after the 1946 Employment Act). That, coupled with the Fed's ignorance to the damage of high money supply growth from financing the Vietnam War and the Great



Society, led to out of control inflation expectations. Once expectations became unhinged it would take a sea-change in policy to bring them back under control, as represented by the nearly 11% unemployment the Fed willingly accepted as

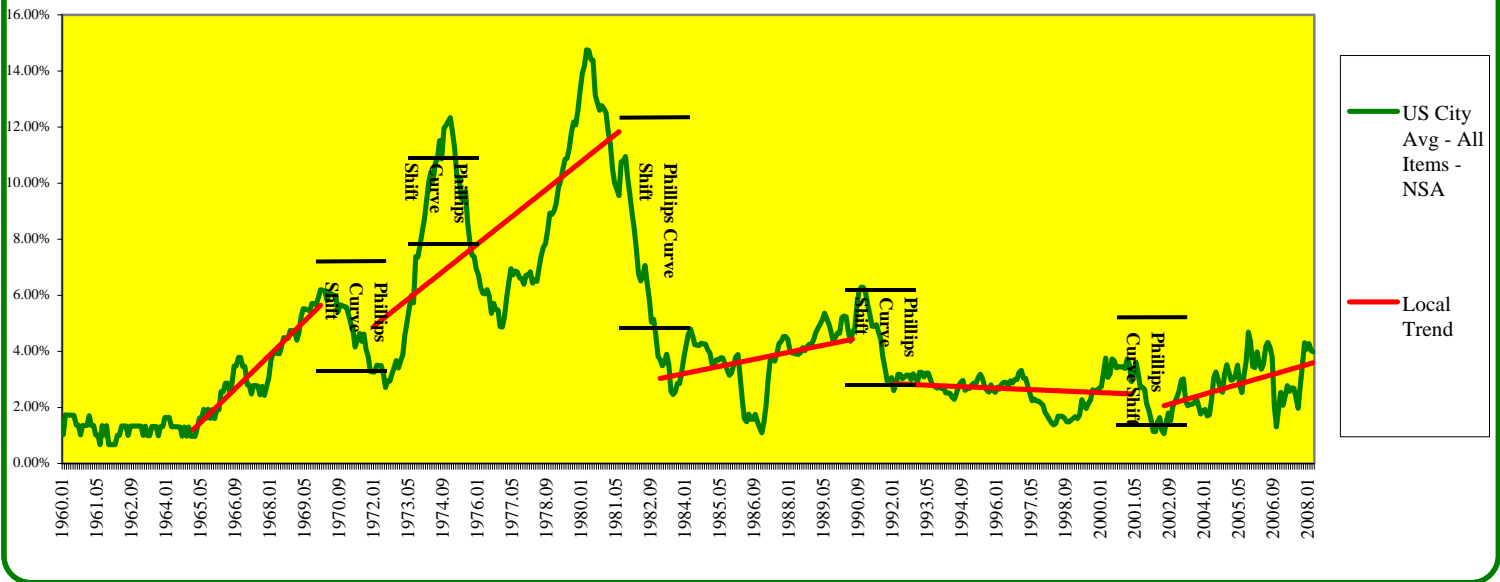
a tradeoff for lower inflation. By 1980 price stability had become the primary goal of the Federal Reserve and monetary policy was its primary tool.

A much more detailed account of the Great Inflation from the Fed’s perspective is available in the article “Origins of the Great Inflation”⁸ by Allan Meltzer of the St. Louis Fed published in 2005.

Part 2 The Great Moderation without Moderation

The Great Inflation, shown by the CPI, ends in the early 1980’s, giving way to the Great Moderation:

CHART 1 - CPI, 1 Year Change
1960 - 2008



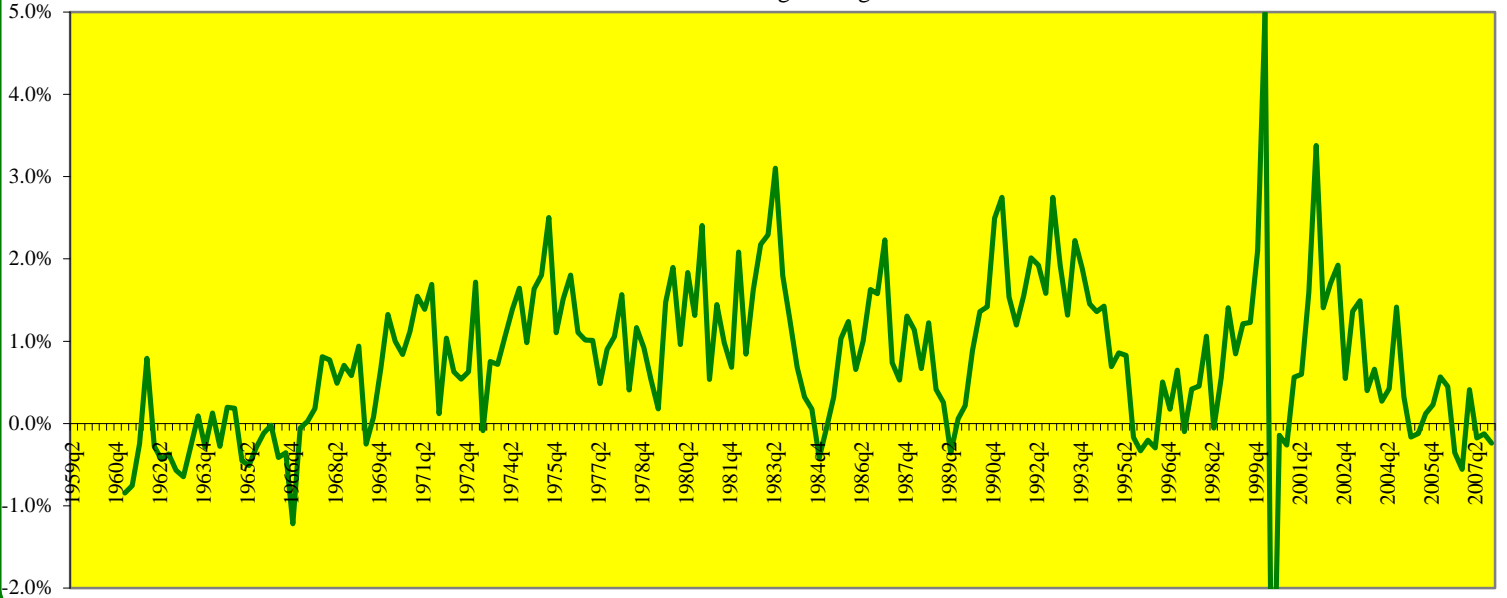
There are several important points to take away from the Chart 1:

1. The Phillips Curve Shift in 1970 and again in 1974 changed the level of inflation (inflation is a rate of change in the general price level of goods and services) but did nothing to the acceleration of inflation – the rate of increase (acceleration) in inflation after each Phillips Curve shift was still high throughout the 1970’s.
2. The Phillips Curve Shift in 1982 was large due to the spike in unemployment to nearly 11%.
3. The period after the 1982 shift still showed positive acceleration, although the rate of acceleration had decreased.
4. After the 1991 Phillips Curve shift inflation actually decelerated until 2001.
5. Inflation has been accelerating since 2002.



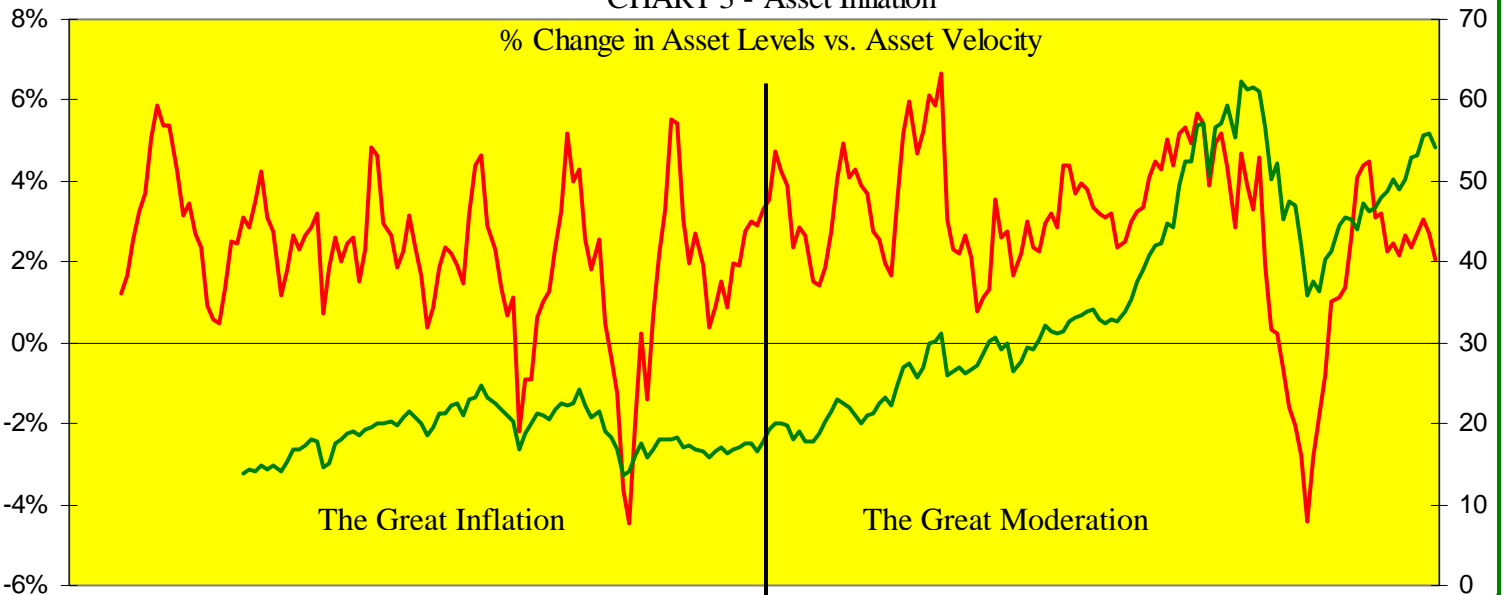
Monetary theory holds that money supply growth should match the growth of real GDP, any increase in the money supply above real GDP will lead to inflation (excess money supply). With that in mind, after seeing the history of the CPI in Chart 1 we should expect to find money supply growth after 1982 to be close to real GDP growth, and an even lower rate of growth during the 1990's to account for the deceleration:

CHART 2 - Excess Money Supply
Growth in Monetary Base Minus Growth in Real GDP
2 Year Moving Average



But that is not the case. While excess money growth is lower in the mid-80's it is still significant. And money growth in the early to mid-90's was as high as it ever was in the 1970's. Something else must account for moderating inflation:

CHART 3 - Asset Inflation
% Change in Asset Levels vs. Asset Velocity





The red line [left scale] in Chart 3 shows the rate of change in the level of financial assets (the value of all corporate equities, mutual fund shares, security credit, and life insurance reserves, and pension fund reserves⁹). The green line [right scale] shows the velocity of asset levels. Velocity is a relative measure of inflation – divide total asset values by monetary base and you get velocity of asset values. If velocity is constant that means that asset values are increasing at the same rate as money supply growth. If velocity is increasing that means that asset values are increasing faster than the money supply, and from that inflation can be inferred. Even in periods where both money supply and asset value growth are declining, inflation can be seen in an increasing velocity - money growth is not slowing fast enough to contain all inflationary dollars.

The overall velocity of financial assets is declining throughout the Great Inflation, which makes logical sense since businesses and individuals choose to consume rather than save during periods of consumption inflation and financial asset prices struggle from the comparison. Simply, excess money from the government printing press is used for consumption rather than investing.

That dynamic changed in 1980 and 1981. From 1981 through 1987 asset velocity increased noticeably, which corresponds with moderate consumption inflation (from Chart 1) and moderate excess money growth. After 1987 money growth slows somewhat, as does asset velocity, and consumption inflation again is moderately higher. The pattern that emerges is an inverse relationship between consumption inflation and asset inflation, a tradeoff.

Which brings us to the 1990's – typically characterized by low inflation. Looking again at Chart 3 we see the error, and solve the mystery from Chart 2 – excess money growth was relatively high yet consumption inflation was flat to lower. Instead of

consumption inflation, the period was characterized by high asset inflation. Money growth was high because of a Fed rule change. In December 1990 the Fed reduced reserve requirements to zero or close to zero for many deposit account classes:

“In December 1990, the required reserve ratio on nonpersonal time deposits was pared from 3 percent to 0 percent, and in April 1992 the 12 percent ratio on transaction deposits was trimmed to 10 percent. These actions were partly motivated by evidence suggesting that some lenders had adopted a more cautious approach to extending credit, which was increasing the cost and restricting the availability of credit to some types of borrowers.”¹⁰

The reserve requirement change was a large increase in money supply as banks were now able to multiply reserve dollars farther.

Then in 1994 banks, which had become accustomed to the increased efficiency of their reserves, began to exploit a technical loophole in the reserve requirement rules. Since money market accounts had a zero reserve requirement banks began to sweep excess cash balances from demand accounts¹¹. That move accelerated the money growth that began with the 1990 change, explaining the 1994 spike in asset acceleration from Chart 3. This innovation shifted assets to zero reserve accounts, outside of the Fed's rules, and contributed to the stock market bull – money market accounts were only one step away from stocks and could more easily be used to purchase them.

From 1992 to 1996 consumption inflation was essentially flat but excess money growth was high, so asset velocity began to rise dramatically. Money growth appeared to slow after 1996 but was really accelerating (more on that in Part 3) pushing asset inflation and velocity into overdrive,

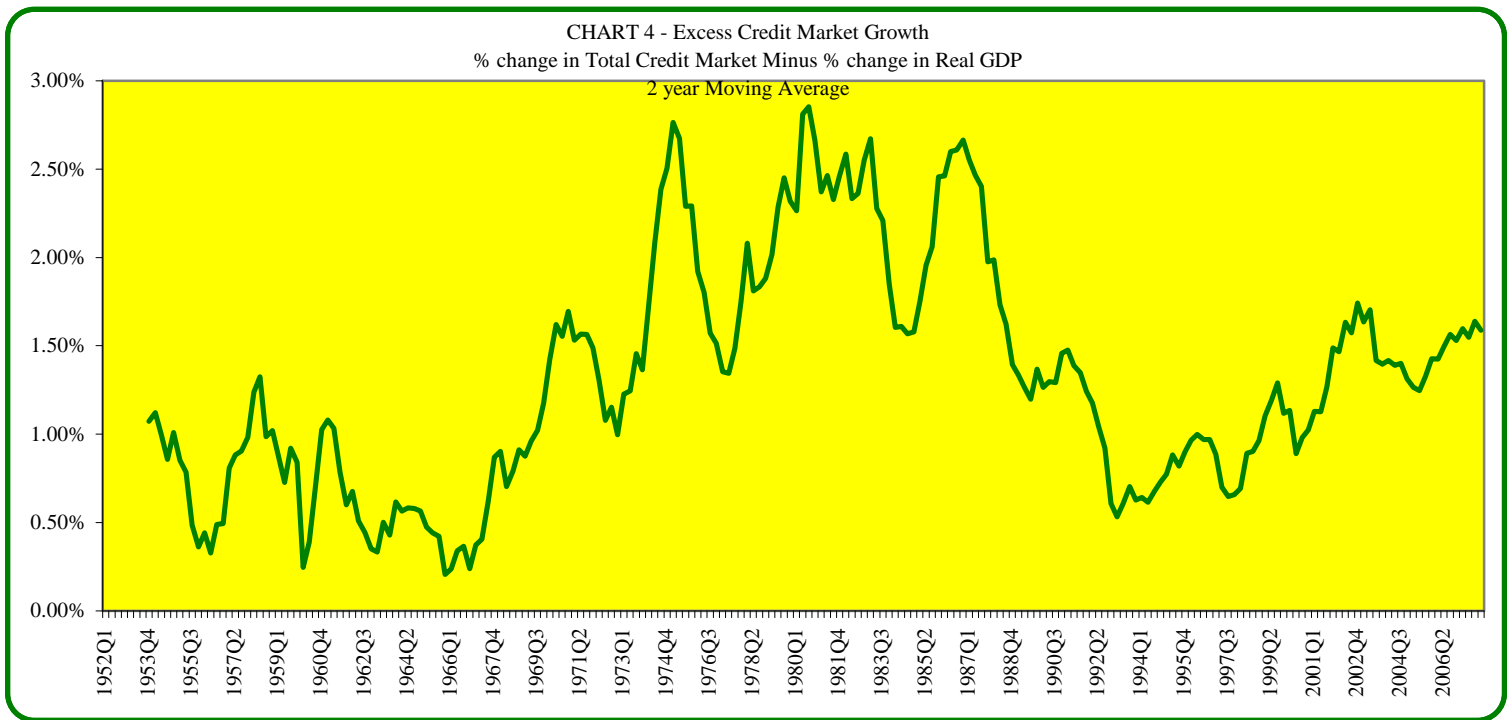


consumption inflation registered its lowest sustained level since the mid-1960’s. From 1997 through 2000 asset inflation went through the roof while consumption inflation stayed historically low.

Asset velocity peaked toward the end of 1999 and not coincidentally consumption inflation had begun to rise. The sudden drop in money supply growth and the Phillips Curve shift from the 2001 recession stopped that increase. Since 2002 the CPI and asset velocity have been accelerating, but excess money growth appears to be slowing. To fill in that mystery we will have to look at how the money supply is actually multiplied – through the credit markets.

When the Federal Reserve increases or lowers interest rates, slows money supply growth or increases it, it is influencing the economy through the credit markets. The credit markets consist of all banks, bond markets, commercial paper markets, etc., or, in short, all lending and borrowing¹². Monetary base consists of total reserves of depository institutions plus the currency component of money stock plus excess vault cash¹³. It is a measure of money flowing through the banking system multiplied as credit.

In an expansion of money theory, excess growth of the credit markets above growth in real GDP should be inflationary. A look at the chart of excess credit market growth does fit with the general pattern of the Great Inflation and the Great Moderation:



There are a couple of important exceptions:

1. High excess credit growth in the mid-1980’s, as high as the 1970’s.
2. Increasing credit growth in the late 1990’s when the CPI was at its lowest.

By splitting the credit market into consumption components we get a better explanation. The total credit market includes mortgages and corporate bonds, two types of instruments that are used in both asset investment and consumption – a corporate bond can fund capital expenditures but it can also fund leveraged buyouts and stock repurchases, while mortgages can pay for new housing but also a transfer of ownership that causes no consumption. If we take those two



instruments out of the credit market calculation and focus on the other sectors we can get a better approximation of the consumption side of credit.

Consumption credit instruments include open market paper, government securities, bank & other loans, and consumer credit. In each of those sectors the loans are tied to some form of buying goods and services (open market paper can finance corporate operations, government securities finance government spending, etc.). This is not a perfect substitution by any means but in the aggregate these credit instruments fit our description.

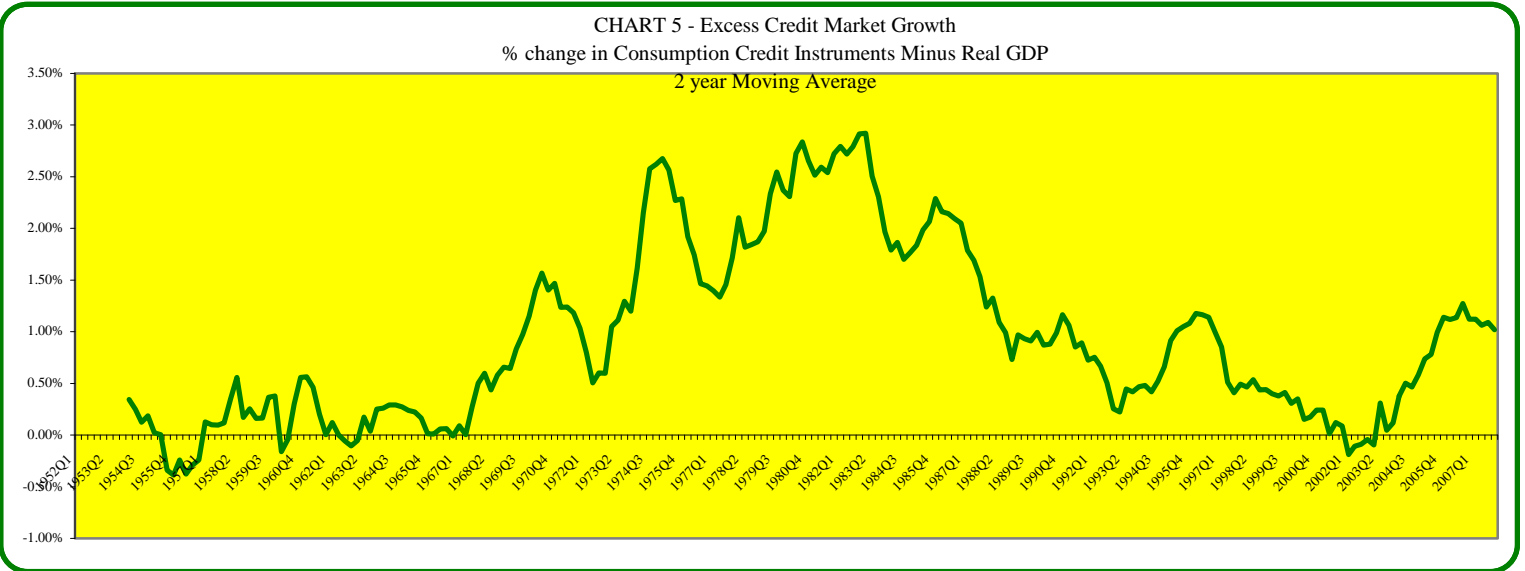
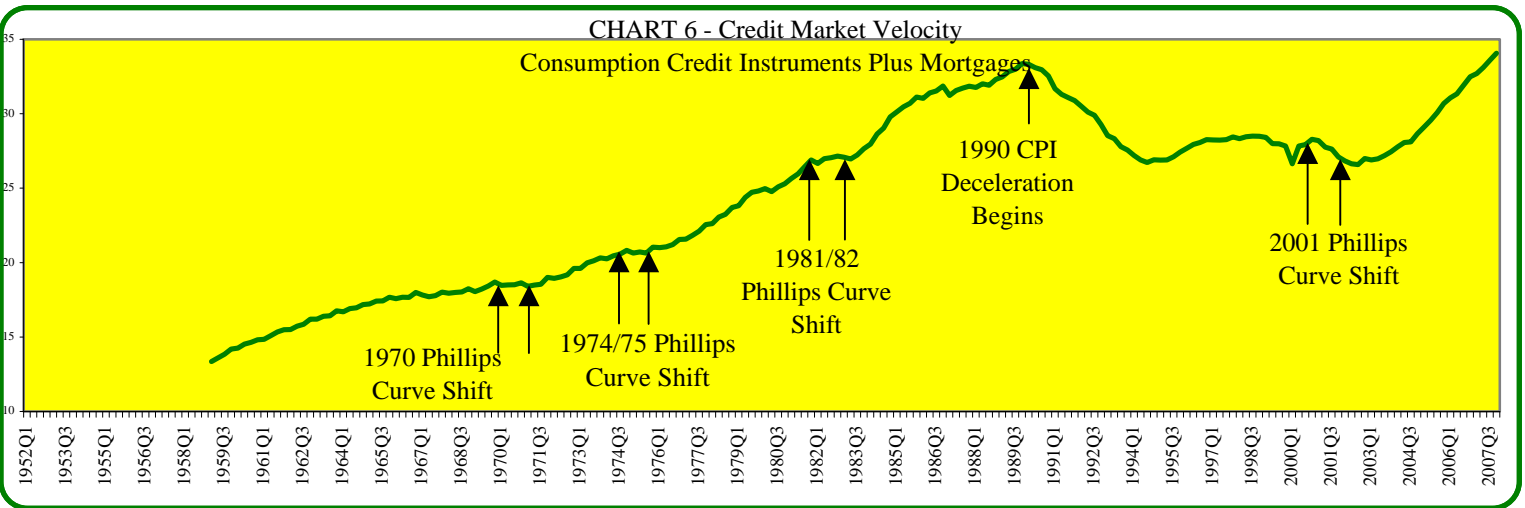


Chart 5 shows high excess growth through the Great Inflation then declining growth in the Great Moderation. The mid-80's spike in credit growth from Chart 4 is much less pronounced in Chart 5 meaning that growth in that period was due to an asset-inflation instrument. In this case it was corporate bond growth that is responsible for the excess credit market growth, explaining some of the asset velocity increase from Chart 3 (the era of junk bonds).

Chart 5 is incomplete, though, as the jump in consumption inflation at the end of the 1990's is not reflected in this sample of the credit market. But if we add back mortgages we get a better approximation – mortgages can influence both inflation types and we can estimate which is being influenced most by growth in home equity mortgages. During that period of the 1990's home equities were growing at a faster rate than conventional mortgages. Using velocity of the consumption credit market including mortgages we get a good approximation of what is happening with consumption inflation. Although the velocity curve does not at first glance appear to match the CPI in Chart 1, it does if we use velocity as a measure of inflation





expectations, or acceleration. The acceleration in inflation throughout the 1980's from Chart 1 shows up in the velocity. So, while the Phillips Curve shift in 1983 was large enough to force the base inflation rate down to a level where the period could be thought of as disinflationary, it really was not. The Great Moderation did not truly begin until 1990 when velocity changed direction and the CPI decelerated.

From 1990 until 1994, including the 1991 Phillips Curve Shift, consumption inflation is decelerating rapidly which is demonstrated by the decline in velocity. The slight acceleration in the CPI from 1994 through the end of 1996 is also shown by the slight increase in velocity. And the historically low consumption inflation in 1997 and 1998 is matched by a flat credit market velocity (the asset inflation tradeoff being responsible for the decline).

Velocity of the credit markets provides another perspective of inflation, acceleration and expectations. Which brings us back to the period after 2002. Chart 1 shows the CPI accelerating, Chart 3 shows asset inflation accelerating and Chart 6 confirms the CPI data with increasing credit market velocity. But Chart 2 shows a decline in excess money supply growth, something that is not supposed to occur according to monetary theory.

A summary of the data in Part 2 is necessary before moving to Part 3 and the money growth mystery:

1. The Great Inflation did not end in 1981, in fact, it never ended. Inflation shifted from consumption inflation to asset inflation. Consumption inflation was still accelerating in the 1980's but was

moderate, at the same time as moderately accelerating asset inflation. That changed after the 1990 recession.

2. Acceleration can be seen in the velocity data. Velocity is a good measure of inflationary expectations. Even after the dramatic Phillips Curve shift in the early 1980's consumption inflation was still accelerating.
3. Inflationary expectations play a much larger role in the direction of inflation, both consumption and asset, than interest rates or the Phillips Curve.
4. The Phillips Curve shift holds in the short-term during contractions and recoveries but inflationary expectations and acceleration dominate the longer-term – you can reduce the level of inflation with higher unemployment but without changing expectations inflation will still be accelerating on the other side (and you have not accomplished your goal by provoking an increase in unemployment).
5. Money supply is the biggest factor in determining inflation – monetary theory holds throughout the Great Inflation and the Great Moderation. The United States, through the Federal Reserve, has been printing money at an inflationary rate for 40 years. The resulting inflationary spiral in assets (both housing and stocks) **had** to end badly, history has taught us that. Has the Fed changed its ways, has it learned its lesson? The data on excess money growth after 2002 suggests that it has. But our knowledge of the “shadow” credit markets reveals otherwise.



Part 3 Mystery in the “Shadows”

Instead of throwing away monetary theory we should, instead, look at an accounting issue. The money supply figure we have been using is monetary base – basically bank reserves. From our August 2007 report we know that credit derivatives began to be used heavily in 2004. We also know that banks used them to ship riskier assets off their balance sheet, which is why we referred to it as the “shadow credit market”. In the current context of money supply, the use of credit derivatives has been to understate money supply growth, in the form of the monetary base.

When a risky loan is transferred to a special purpose vehicle (SPV) or a special investment vehicle (SIV) the originating bank usually brings the loan back as an asset-backed tranche. The majority of all tranches were AAA-rated and under the Basel I framework, safer assets require less reserves. In effect banks were able to turn riskier assets into safer assets, freeing them to make more loans for a given amount of reserves since their overall risk profile is reduced.

In a January 2007 Financial Times article¹⁴, Northern Rock, ironically, was profiled in just this manner:

“Risk-sharing also brings an immediate benefit for the lender, in that it can make more loans: regulatory rules permit banks to reduce the reserves of cash held against their loans if these are securitised. That means Northern Rock can create more mortgages, for each pound (or dollar) of capital, than before. “Securitisation has provided us with a sustained source of funding that supports our growth strategy,” says Mr Jones, adding that the company is expanding its

lending business at about 20 per cent a year.”

Making more loans with less capital reserves is an expansion of the money supply without expanding the money supply. And it was all done with approval from regulators. After all, the 1994 shift of assets outside reserve accounts was not met with any new restrictions, and so it was tacitly approved. If the Fed allowed money supply to be shipped outside of its reach then, why not now.

Money multiplication works for both consumption and assets. Not only can financial companies reduce risk in consumption credit, they can and did reduce risk in asset credit. Leverage was the name of the game and financial companies paired risky loans for asset acquisitions (the merger mania of 2005 and 2006) with credit default swaps (CDS) to reduce their risk profile. Leverage to hedge funds and SIV’s packaged with a CDS were supposedly as safe as a AAA-rated bond and required lower reserve balances.

By allowing money to shift to the “shadows” the Fed lost a lot of influence over money supply growth. The “surprise” increase in interest rates in 1994 and 1995¹⁵ was an attempt to restore Fed jurisdiction. While it appeared to work, the decline in excess money growth (Chart 2) was misleading. By requiring less reserves the financial system accomplished higher loan growth with the same amount of reserves. The increase in interest rates did nothing to slow credit market growth or asset velocity (this can be seen in the M2 and M3 money stock measures). Rather, the rate increase had the opposite effect. By increasing short term rates the Fed increased the cost of deposits for banks forcing them to seek more efficient means of credit profit, pushing them to the shadows.



Recognizing this fact the Fed declared a “soft-landing” and Mr. Greenspan famously lamented of “irrational exuberance”¹⁶ rather than take more forceful measures that might pop the bubble in an unorderly fashion. But that period was far from irrational when seen in the context of credit growth.

A repeat of the episode occurred in 2004. Rate increases did nothing to slow the credit market, but growth in the monetary base again appeared to slow. Again, the rate increases were counterproductive – banks were forced to the shadows to find ways to increase profit in the face of increased money costs. Credit derivative use exploded leading to the housing bubble as the financial system multiplied reserves exponentially. The Fed rationally inflated

two bubbles in less than ten years. The only question left is whether it was due to sheer incompetence or misguided intent.

The bottom line is that the numbers have been deceiving for the better part of fourteen years. Because consumption inflation was historically low the current acceleration has not been seen as troubling until recently. But how long can money be manufactured without serious consequences? The stock bubble was papered over into the real estate bubble. Now that its exuberance has rationalized should we expect another bubble to take its place? Are bubbles now the 21st century version of monetary snake oil?

Part 4 An Encore Performance

In our March 2008 report we questioned the Fed’s policy in light of the credit crunch and its relation to the economic contraction. In this report we are using it in the context of inflation policy. The 1968 Fed was faced with much the same problems as we are today; only the details differ. Policies enacted then led to the Great Inflation, fifteen years of economic hardship topped off by the most severe contraction this side of the Great Depression. The performance of the Fed this time around leaves little optimism it understands the comparison.

The first alarming evidence comes from the current Fed’s overconfidence in the Phillips Curve shift. Dennis Lockhart, president of the Federal Reserve Bank of Atlanta said on May 16, 2007:

“My base-case forecast is that the weak economy will bring inflation down. And in fact, if you look at some of the information, the data we've seen in the last couple of cycles ... it has slowed.”¹⁷

In other words, he is counting on the Phillips Curve tradeoff from a weaker economy and higher unemployment to reduce inflation – just like in 1968. Recent comments from Fed members are similar; they say their concern for inflation is growing but that weakness will take care of inflationary pressures (although Mr. Bernanke hinted on June 9¹⁸ that he may consider raising interest rates – and the stock market reacted negatively. Until he can visibly rebuke the stock market the Fed’s inflation credibility is in doubt).

Second, one of the biggest mistakes the Fed made at the beginning of the Great Inflation was to be public in its preference for full employment. Not only was it public, its policies also left little doubt as to where its priorities lay – the gradualist approach of the Nixon administration was a perfect example. In trying, recklessly in my opinion, to half-heartedly fight inflation while maintaining stimulative policies was one of the most public signals that policymakers were willing to accept higher inflation. And that



signal was one of the seminal events in allowing inflation expectations to be unhinged.

Once unhinged the inflation spiral was self-sustaining. Higher prices led to higher wage demands, which led to higher prices and so on. Each time economic weakness and higher unemployment occurred the Phillips Curve tradeoff was short-lived. Once the Fed turned to stimulative policies in response to unemployment the inflation expectations were reinforced. Acceleration was the one constant throughout the entire period, and even until 1990. It took the asset inflation tradeoff to reverse the twenty-five year increase in consumption inflation velocity. Once expectations are reinforced by policy actions, or lack of actions, an inflation spiral (or bubble) is the inevitable result.

Currently, inflation talk is everywhere. Public perception is becoming that consumption inflation is not only acceptable to policymakers, it is also inevitable due to policy. Statements like the Fed's September 2007 policy statement¹⁹ demonstrate that the Fed is worried about unemployment/Wall Street **and** inflation. But its policies have all been stimulative/Wall Street-centric, and demonstrate that the Fed will come to the aid of banks and brokers regardless of inflationary pressures:

1. In December 2007 the Federal Reserve had \$775 billion in uncommitted treasury securities as reserves²⁰. Since the term auction facility (TAF) program began it has used almost \$400 billion as collateral for Wall Street and the banking system. In return the Fed has taken some of the worst, illiquid tranches of CDO's as collateral, swapping good assets for bad. As the name implies there is a term limit for the swap – but what if the bank or broker is close to illiquid when the Fed wants its Treasury securities back? Will it force the bank's hand or will it enact a

bailout? The Bear Stearns episode suggests a bailout, and that means the term in the TAF is permanent - a permanent increase in the money supply to bail out a financial institution regardless of inflation.

2. "As credit conditions continue to deteriorate, we are strongly encouraging institutions to increase reserves at a rate that keeps pace with institutions' projections for non-current loans. In the current environment, the attention banks have been giving to boosting reserves and capital needs to continue." FDIC Chairman Sheila C. Blair in a statement to the Senate Committee on Banking, Housing and Urban Affairs on March 4, 2008²¹. That statement demonstrates the official policy of the US monetary system in action. Again no mention of inflation.
3. The Fed is kicking around a proposal of a reverse swap arrangement²² where it will swap back collateral (broken CDO's) for its Treasury Securities. Exactly how this will make the CDO's valuable again is anyone's guess. But the fact that it is now a willing market maker in a illiquid and disappearing market shows that its concerns lie with the health of the financial system. It seems to be a recognition that it may never get its treasuries back from some institutions and that will permanently affect the money supply.

Without being backed up by decisive action against it, consumption inflation expectations are becoming unhinged from the low expectations that ruled the last eighteen years. Once those expectations are let loose it will take drastic action to reverse.

Third, there is little evidence that the Fed has recognized any loss of influence over money supply growth. Again its September 2007 statement made allusion to inflation pressures not abating but then being mystified as to why since it had increased interest rates from 2004 through the end of



2006. Yet the credit market grew uncontrollably, and both asset and consumption velocities changed direction. The change to increasing velocity in 2002 and 2003 has been universal, showing up in almost every sector of the credit market and in every measure of money supply. But there has been no talk from any Fed member as to **why** inflation is accelerating. Even if there is an acknowledgement of acceleration, will there be any remedies outside of interest rate increases? Rate increases are not enough and counterproductive as the 1994 and 2004 actions amply demonstrated. Someone at the Fed will have to speak about reserve requirements and forcing money growth from the shadows.

Chairman Bernanke is a student of the Great Depression²³ and judging by his extraordinary measures we can infer that he considers the credit crunch to be a severe banking problem, on par with late 1920's and early 1930's (March Report). By overweighting his concerns toward the banking system he is pursuing rapid expansion of money supply on top of rapid expansion of the credit market. While at first glance it may seem that the money supply and the credit market are shrinking from the large non-cash writedowns on credit derivatives, the truth is they are expanding.

When all those asset-backed security loans from SIV's and SPV's are taken back onto the balance sheet of banks and brokers, as

well as all those loans that were warehoused waiting to be sold as asset-backed securities are now reclassified into higher-risk "buckets", capital reserve balances are diluted. Instead of shedding loans and risky assets for cash (the derivative market has nearly ceased to exist – according to Merrill Lynch no home equity loan securitizations have taken place since November 2007²⁴) banks and brokers have been raising their levels of capital reserves. Those onerous preferred stock offerings and common stock sales to the Middle East and Far East are as much about adding risky assets back to balance sheets as writedowns. The effect on the money supply is to make permanent the huge increases in the credit markets. Instead of shrinking their assets to fit their current reserve levels, which would be at least neutral to the money supply, banks and brokers are increasing the money supply to fit their asset levels – and the Fed is helping them do it.

By offering term auctions of hundreds of billions of dollars the Fed is using the vast reserves of the United States to loan the banking system easy funds while it papers over the credit market expansion. With an economy about to enter a contraction the permanent increase in excess money supply (money supply above real GDP growth) will be magnified even more. Inflation acceleration will increase - the Phillips Curve shift will not change that. Just as we saw in the early and mid 1970's inflation will reignite after each contraction.



Conclusions

There are so many lessons to be learned from the Great Inflation and the Great Moderation. The Fed stumbled at every opportunity to stamp out inflation before it got out of control, seemingly lacking the will or the wisdom:

1. Not focusing on the excess money supply growth.
2. Talking about inflation as a problem but not taking any concrete, hard action. While it talked a good game there was little doubt the Fed was more concerned about economic weakness and unemployment, with no idea that it would be better to deal with it sooner and avoid much pain down the road.
3. Over reliance on the Phillips Curve tradeoff. The Phillips Curve only works in the short-term – it can bring the level of inflation down but does nothing about acceleration.
4. Underestimating the importance of expectations.

While those four points pertain to a past Federal Reserve regime it is increasingly relevant to the current Fed. There really seems to be a lack of leadership and an inability to take hard measures. Saving the banking system is the path of least resistance – it does not take leadership to throw money at a problem. By focusing on economic weakness and the credit crunch the Fed is sacrificing long-term stability for a short-term benefit.

Regaining control over money supply growth may be one of those hard measures. Even if it means more institutions facing insolvency and an increase in unemployment the long-term benefits far outweigh the short-term pain. Mr. Bernanke had faulted the Fed of the 1930's for

restricting money growth and turning a recession into the Great Depression. He feels that the risk to banking system is greater than the risk of consumption inflation.

So the pertinent question is whether our current predicament mirrors the early 1930's or the mid-1960's, are we on the cusp of the Great Depression or the Great Inflation? Although the topic deserves a full report itself, I put my money on the latter. There is one defining difference from the Depression era – wealth was concentrated in too few hands then. That concentration meant that a shock would affect wealth-holders disproportionately. Today, credit derivatives are designed to change that (they **do** have positive aspects). CDO's spread risk so that losses are cushioned through a diversification of wealth holders throughout the financial system and around the globe. Any shock is absorbed as a minor loss to the system rather than a catastrophic loss to the few wealth holders the economy depends on for credit.

Even though banks have little faith in other banks, refusing to lend to each other, the public at large has not lost confidence in the financial system – that lost confidence turned the banking problem into deflation. In fact the banking system handled a mini-run in September 2007 because of risk diversification (not the Fed's emergency measures). And in doing so it demonstrated, in my opinion, that a depression is not the biggest risk.

As far as the stock market is concerned, there is nothing more aggravating than Wall Street's habit of looking at "core" numbers. That may be the biggest piece of evidence that the blind are indeed leading the blind, and the stock market rally we dubbed as a fool's rally is well named. As silly as it is on its face to strip out food and energy from



the CPI because they are supposedly “volatile”, what exactly does that accomplish? In the real world people do not have that option, so what good is it to use such a measure as a guide for economic robustness? And since those two areas are where excess money is being used the most it seems **more** logical to be **more** concerned about inflation in them.

And then there is the issue of just how accurate the CPI is. It takes the average of urban consumers to come up with a unified level of inflation. In that average food only accounts for 15% of the total and energy (gasoline and utilities) takes up 10%²⁵. While that may be a good average, the affects on the less affluent are not taken into account. Food and energy expenses for the lowest income earners are far greater than 25% - and it is exactly those people who will be asking for raises to pay for inflated goods, beginning the spiral.

By ignoring these rather large inconsistencies the markets are tracing the exact pattern we laid out in March – the three-legged drop. The first leg down ended in March, and we have been “enjoying” a fool’s rally since. Overconfidence in the Fed and a illusory interpretation of data is being used as fuel for those who insist that the worst is over (despite Lehman’s recent trouble and a spike in unemployment).

What is most worrisome to us as portfolio managers is that the economy seems to be backing into a no-win corner. To contain inflation the Fed will have to restrict the money supply until velocity changes direction (which is no easy task when the central bank **has** control of money supply growth). That would lead to more financial failures and a worsening economy (the short-term Phillips Curve). On top of the tapped out consumer and housing depression the severity of that contraction would be frightening, but relatively short-lived. The other end of the spectrum is our current course: save the banking system by pumping it full of cash. Inflation will

accelerate as the excess money supply is multiplied through the credit markets. While the Fed waits for the contraction to run its course and then tighten money growth, inflation expectations, which are already at a 26-year high²⁶, will be even higher. The restrictive measures will have to be more severe in order to change velocities, likely provoking a second contraction – even more severe.

While most people look at the Great Moderation as an unmitigated success we have to now, in light of our understanding of inflation trade-offs, view it through a post-bubble lens. Conventional wisdom puts the final nail in the inflation coffin in the early 1980’s but it was not until 1990 that the change in velocities occurred, and consumption inflation decelerated. The Fed, basking in the glowing credit of the victorious and wise, full of confidence in its newfound monetary prowess, continued to add excess cash throughout the Great Moderation (boldly cutting reserve requirements in 1990). But instead of provoking consumption inflation it started the inflationary spiral we now know as the dot-com and housing bubbles. Without the pressure of damaging consumption inflation, and full of positive feedback from a roaring stock market, there was little incentive to regain control of money growth. While an attempt was made in 1994, Mr. Greenspan did little other than utter his famous comment. Even after one devastating bubble burst he repeated the exact same mistake and did little to stop the second.

We are not normally so gloomy on economic issues but right now, at this period in history, the tide of history is running against us. It has been forty-plus years of running the money press above real GDP. Eventually fundamental valuations will win out. We cannot expect that there will be no consequences for decades of mistakes, that bubbles are a normal course of business as Mr. Greenspan has said recently²⁷ to shift blame from himself. And he is not alone.



We have allowed mistaken priorities to constrain economically essential investments, investments that would have helped increase supply capacity. Environmental concerns have, for years, won out over economic concerns because we have lacked the foresight and the will to make hard choices (good times undermine the motivation to face big problems). We now face the most difficult of circumstances, trying to remove supply bottlenecks (corn, oil, rice, wheat) while simultaneously enacting policies that encourage supply bottlenecks (biofuels, no drilling for oil in the US). All the while excess money is being thrown into demand for that limited supply. As prices increase for those suppliers more money is attracted to consumption-type ventures.

Taking into account that a trade-off exists between asset inflation and consumption inflation, and to be intentionally oversimplistic and blunt: the 1970's saw domination of consumption inflation. The 1980's saw moderate inflation in both, the 1990's saw domination of asset inflation, the 2000's saw moderate inflation in both. What is the next stop for the pendulum?

If there is a change coming in the inflation trade-off dynamic then even more drastic action will be required – and even direr consequences for the economy and asset classes (the sooner the better). And if you think such a scenario unlikely, remember that the mass retirement of baby-boomers is right around the corner. Expectations of inflation in both sectors will be very much in their minds as they decide how and when to shift money from assets in order to consume.

Endnotes

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