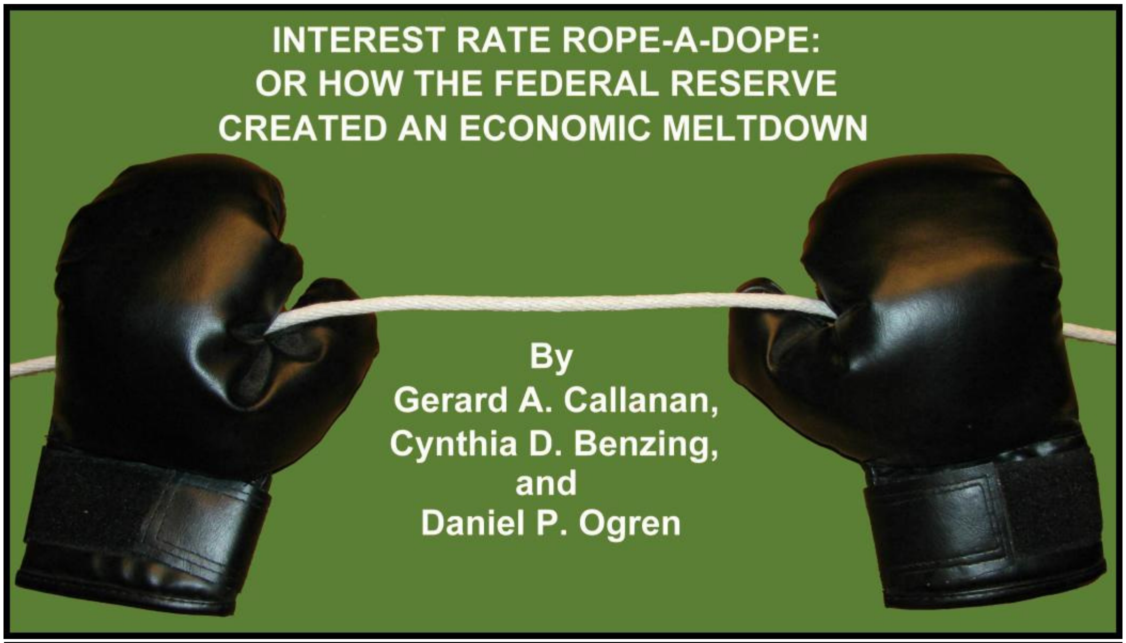

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Abstract

The worldwide economic crisis that became manifest in 2007 and 2008 resulted from many factors involving the actions (or inactions) of government, the financial services industry, and society as a whole. This paper examines how the monetary policy decisions of the Federal Reserve during the period from mid-1999 through the end of 2008 served as the fundamental spark that led to the economic crisis. As this paper details, the Federal Reserve's focus on controlling inflation and inflationary expectations led to monetary policy decisions that created wild gyrations in interest rates, the spike in housing prices, and eventually the crisis in the financial services industry. The paper concludes with recommendations to help ensure that these same monetary policy mistakes do not occur in the future.

In boxing parlance, the rope-a-dope strategy involves suckering or lulling one's opponent into believing that he or she is winning the match, but then quickly vanquishing the foe by aggressively overwhelming him or her. This strategy was popularized by Muhammad Ali in 1974 when he used it as a way to defeat George Foreman and retake the heavyweight boxing title. Although not involving a boxing match, the Federal Reserve effectively used the same rope-a-dope strategy in the management of interest rates to aggressively overwhelm and vanquish the economy of the United States and, in time, the economies throughout the rest of the world. The end result of this strategy was, by the end of 2008, a worldwide economic recession, a substantial decline in global equity markets, mass housing foreclosures in the United States, a sharp increase in the U. S. unemployment rate, and the virtual worldwide collapse of the financial services industry.

It is the premise of this paper that failures in the Federal Reserve's conduct of monetary and interest rate policy that began in the late 1990s ultimately led to the economic crisis (or financial "meltdown" as some have called it [Cassidy, 2008]) that occurred some nine years later. The unraveling of the U. S. economy became manifest in 2007 with the widespread collapse of the housing and mortgage lending sectors. The popping of the "housing bubble" reflected a severe drop in home values combined with rising mortgage payments resulting from increases in adjustable mortgage interest rates. Widespread defaults on mortgage loans skyrocketed throughout 2007 and 2008 and many homeowners (estimated at 12 million at the end of 2008) were "underwater," meaning that the outstanding principal on their mortgage loan exceeded the market value of their homes (Bernard, 2008; Streitfeld, 2008). The deleterious consequences from the escalation in defaults on mortgage loans were quickly felt throughout the U. S. economy, as securities backed by these mortgages lost sizable value (Bajaj, 2008). The large investment and commercial banks holding these mortgage-backed securities (MBSs) then began to fail en masse as their asset base eroded. Government intervention on a worldwide basis was necessary to prop up and bailout the financial services industry in order to prevent a global financial panic. According to the New York Times, by the end of 2008 the U. S. government owned stock in 206 banks (*New York Times* Business Page, 2009, January 1). In addition, hundreds of billions of dollars in new government spending were used by the United States and other industrialized countries in Europe and the Pacific Rim as a way to fiscally "head off" a deeper recession.

Like any disaster caused by humans, the financial crisis in the latter part of the first decade of the 21st century had multiple causes; not just the interest rate policy actions of the Federal Reserve. Although more thorough treatments of these general causal factors are available elsewhere (Barrell & Davis 2008; Cassidy, 2008; Fleckenstein, 2008; Gorton, 2008), they can be broken down into those caused by business, those emanating from government, and those resulting from the broader society.

From the business side, mortgage lenders working outside of the banking system were accused of excessive greed in making untenable loans to individuals who were not creditworthy and using predatory lending practices in an effort to con borrowers into taking on higher debt than what they could reasonably afford (Goodman & Morgenson, 2008; Moss & Fabrikant, 2008). Further, the financial services industry as a whole was viewed as experiencing a mass failure in corporate governance as investment and commercial banks took on riskier and more complex mortgage-backed investments as a way to bolster earnings (Bajaj, 2008; Dash and Creswell, 2008). The push toward profit maximization and an overall ignorance concerning the inherent risk of these instruments blinded the senior officers and directors of these organizations (Morgenson, 2008a). In addition, ratings agencies, whose job it was to assess the risk of mortgage backed instruments, failed investors and investing organizations either by not properly assessing the risk of the instruments or by taking on assessments that should never have been attempted (Morgenson, 2008b).

Beyond the failures of the Federal Reserve that will be discussed shortly, the U. S. government did not adequately monitor and regulate the mortgage lending industry. The proliferation of sub-prime mortgage loans and the attendant risks to the welfare of the nation's economy should have led to greater oversight of these lending institutions. The Securities and Exchange Commission (SEC) also relaxed rules in 2004 allowing the five largest U. S.-based investment banks to take a higher degree of risk onto their balance sheets (Labaton, 2008). As subsequent events unfolded in the latter part of 2008, this greater risk was a contributing factor in the failure of these venerable institutions. Other commentators blamed the Community Reinvestment Act (CRA), enacted into law in 1977, as encouraging (or forcing) banks to lend to low income borrowers who did not meet normal credit standards; thus exacerbating the default rate on mortgage loans when the housing market collapsed (Golub, 2008; Husock, 2008).

Two government-sponsored enterprises (GSEs), the Federal National Mortgage Association (Fannie Mae) and the Federal Home Mortgage Corporation (Freddie Mac), also played lead roles in the mortgage crisis. Until their financial collapse and subsequent takeover by the U. S. government in September of 2008, both of these GSEs were private, publically-traded enterprises that enjoyed the backing of the federal treasury and other competitive advantages (Flitter, 2009). As the largest providers of financing for domestic home loans, their goal was to encourage home ownership among the broader populace by buying mortgages through the secondary mortgage market. Fannie Mae and Freddie Mac helped "grease the wheels" of the home ownership/mortgage lending process by ensuring a ready market for the mortgages being made by banks and other mortgage lenders. Unfortunately, both Fannie Mae and Freddie Mac practiced shoddy oversight of the risks that were embodied in the mortgage loans they were buying and also were woefully under-capitalized institutions (Duhigg, 2008; Duhigg, Labaton, and Sorkin, 2008).

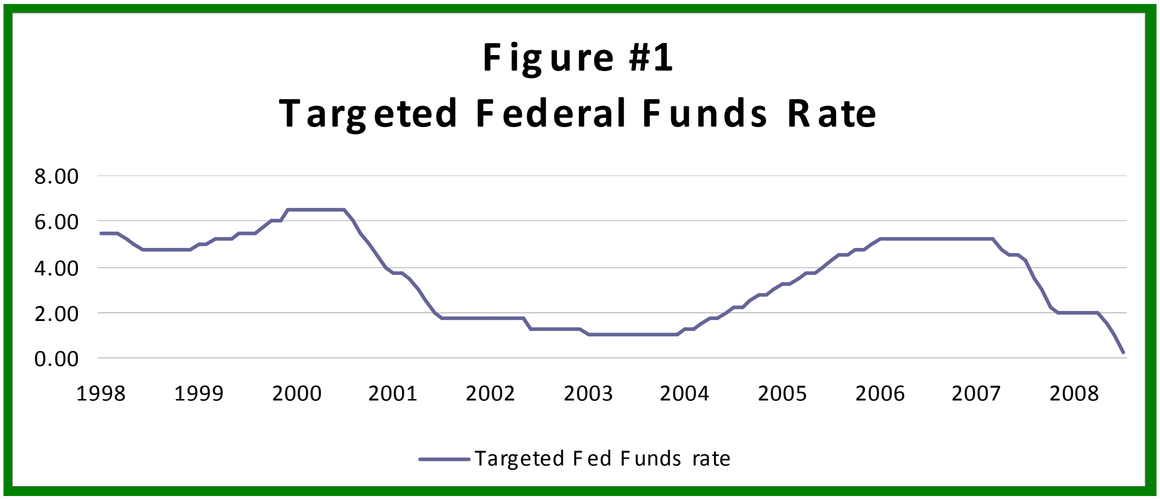
Within the broader society, the financial meltdown was viewed as resulting from a failure by borrowers to appreciate the degree of risk they were taking on and (or) not fully understanding the loan arrangements into which they were entering. In essence, borrowers, both those attempting to own a home of their own and those speculating that the real estate market would continue to climb, were seen as not taking “personal responsibility” for their unwise mortgage decisions and then defaulting on the loans into which they should never have entered in the first place (Boston, 2008).

Regardless of these varied reasons for the financial meltdown, ultimately it was the monetary policy decisions made by the Federal Reserve dating back to the late 1990s that provided the spark for the economic crisis. As will be shown, the Federal Reserve, beginning in mid-1999, put interest rates on a wild roller coaster ride that eventually led to the crisis in the housing market. In addition, a review of the Fed’s policymaking deliberations shows a group that was woefully inept at understanding the evolving relationships among economic growth, unemployment, productivity, and inflation. This ineptitude caused the Fed to consistently be behind the curve in anticipating and responding to emerging economic conditions.

The Beginnings of the Rope-A-Dope Strategy

In the spring of 1999, all was right with the world, at least in economic terms. United States’ real gross domestic product (GDP) for the first half of 1999 grew by a robust 3.9 percent over the first half of 1998. The U. S. unemployment rate stood at a minuscule 4.2 percent, while the core consumer price index (CPI) in June 1999 was up by just 1.96 percent over the prior year. Other economic statistics also painted a rosy picture. Housing starts in May 1999 were up by 6.9 percent over the prior year and consumer confidence was on the rise. In short, the U. S. economy was robust in the spring of 1999 and all indications were that it was getting stronger. (Note: sources of these economic statistics are listed in the appendix at the end of the paper).

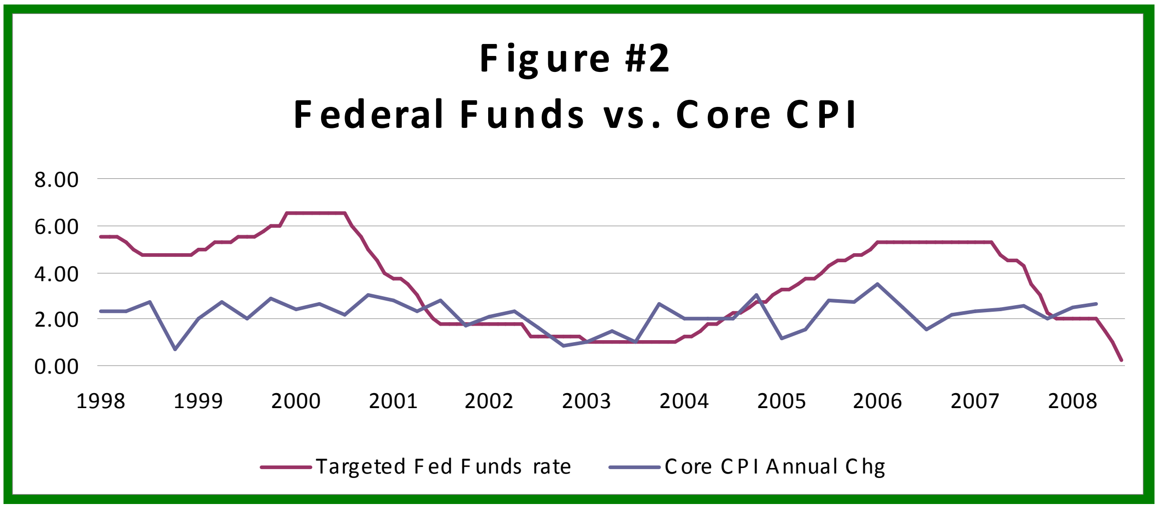
In light of this strong economy, the Federal Reserve’s Open Market Committee (FOMC) was worried. Inflation, as represented by the core CPI, had been kept in check over the latter part of the 1990s, but it was expected to rise given the strong and growing economy. Throughout the first half of 1999, FOMC members voiced concerns that the strength of the economy would inevitably lead to higher consumer prices. In June of that year, the FOMC took action, raising the targeted Federal Funds rate from 4.75 to 5.00 percent. At the time, this increase did not appear to be noteworthy, but in reality it marked the beginning of the economic crisis that would come into full force some eight years later. Over the next nine years through the end of 2008 the Federal Reserve changed interest rates a whopping 44 times, putting the U. S. economy on the aforementioned roller coaster ride. (See Figure #1 below.)



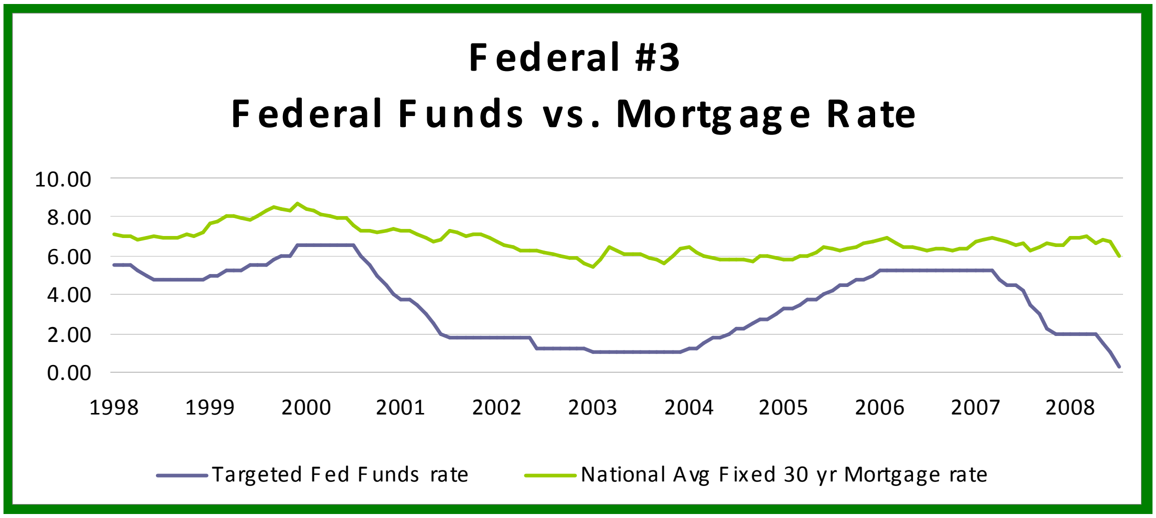
Justifications for the Interest Rate Changes

When the Fed initially raised the Fed Funds rate in June of 1999, the justification was heightened concern over the prospect for an acceleration in inflation. Indeed, to quote from the minutes of the FOMC meeting of June, 1999, it was the view of all but one of the FOMC members that the rate increase "represented a desirable and cautious preemptive step in the direction of reducing…a significant risk of rising inflation. While current indications of accelerating inflation were quite limited, the economy had been expanding rapidly enough to put added pressure on labor markets over time, and many members expressed growing concern that, given the current stance of monetary policy, the persisting strength of domestic demand augmented by increasing demand from abroad would show through at some point to even tighter labor markets and higher inflation, which would impinge over time on the economy's ability to realize its full growth potential." The lone dissent came from Robert McTeer, President of the Federal Reserve Bank of Dallas, who believed that "tightening was unnecessary to contain inflation," noting that "most measures of current inflation remain low," with "few signs of inflation in the pipeline." He did not believe that "rapid growth based on new technology, rising productivity, and other supply-side factors is (was) inflationary, especially in the current global environment." (Note: all FOMC minutes, statements, and press releases can be found at the Federal Reserve's website at www.federalreserve.gov/FOMC.)

Over the ensuing 11 months, the FOMC would raise rates an additional 5 times, moving the targeted Fed Funds rate all the way up to 6.50 percent in May of 2000. These rate hikes were all justified on the basis of fighting potential inflation, even though real inflation remained low (see Figure #2). A reading of FOMC minutes generated from meetings during this period is revealing. The rate increase in August of 1999 was expected to "markedly diminish the risk of rising inflation going forward." The increase in February 2000 was justified on the basis that "risks are weighted mainly toward conditions that may generate heightened inflation pressures in the foreseeable future," and "as long as inflation and inflation expectations remained damped," there would be "little risk in a gradual approach to policy tightening." Despite evidence that inflation was moderate and the economy was weakening, the FOMC pushed forward with the rate hikes. At the March, 2000 meeting, FOMC members "saw little evidence to date of any acceleration in core inflation, and unit costs for nonfinancial corporations were unchanged in the fourth quarter (of 1999)." Despite this evidence, FOMC members continued to be concerned that the "the direct and indirect effects of higher fuel prices, the rise in other import prices, increasing medical costs, and some deterioration in surveys of inflation expectations could begin to show through to higher underlying inflation," and "at some point foster inflationary imbalances that would undermine the economic expansion." Even in May of 2000 the FOMC approved a 50 basis point increase in the Fed Funds rate to help "forestall a rise in inflationary expectations," although the members clearly saw that inflation was being constrained by increased productivity and the "persistence of strong competition across much of the economy." (See Figure #2 below.)



By the middle of 2000 the damage that the rapid acceleration in interest rates was doing to the U. S. economy was obvious. In May, the average 30-year mortgage rate, responding to the spike in the Fed Funds rate, jumped to 8.71 percent compared with 7.23 percent a year earlier. (See Figure #3 below.) This increase in mortgage rates caused a commensurate decline in housing starts. By the end of 2000, housing starts had dropped sharply, with the December total falling by 11.4 percent over the prior year. Consumer confidence also began to drop sharply, with the index falling from 141.7 in December of 1999 to 128.6 in December of 2000. Unemployment increased markedly, moving from 4.0 percent in December 1999 to 4.9 percent in August of 2001. Real GDP also began to show the effects of the interest rate hikes, declining from 4.5 percent growth in 1999 to 3.7 percent in 2000 to an anemic 0.8 percent in 2001.



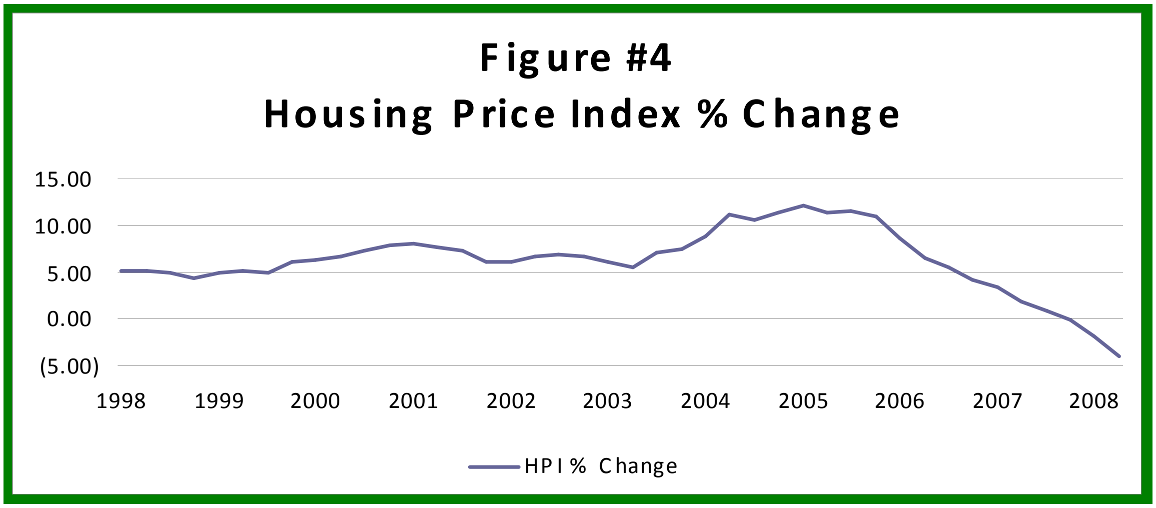
By the end of 2000 the FOMC finally began to recognize the economic damage that had been wreaked by the significant increases in interest rates, but the risk of inflationary expectations still dominated the discussion and the course of action. As the November, 2000 minutes state, "despite clear indications of a more moderate expansion in economic activity, persisting risks of heightened inflation pressures remained a policy concern," and "although overall financial conditions had tightened over the course of recent months and currently appeared to be holding down the growth in spending, this added restraint was likely to be necessary to contain inflation pressures. In these circumstances, all the members saw the maintenance of a steady policy as the best course at this juncture." The December, 2000 minutes clearly show concern over the weakening economy: "the information pointing to further weakness was very recent and to an important extent anecdotal. As a consequence, most of the members were persuaded that a prudent policy course would be to await further confirmation of a weakening expansion before easing." Members of the FOMC who expressed a preference for easing believed that with "unit labor costs and inflation expectations contained, enough evidence of further weakness already existed to warrant an immediate action."

Roping the Dopes (or is it Dupes?)

In January of 2001, the FOMC realized that they had gone too far with the interest rate hikes. In an unprecedented move, over the first eight months of 2001 the Fed lowered the Fed Funds rate seven times, taking it from 6.50 percent down to 3.50 percent by August. The steep, roller coaster dive in interest rates continued after the terrorist attacks of September 11, 2001. Citing concerns that the attacks would severely crimp economic activity, the Fed continued to reduce rates each of the final four months of 2001, down to 1.75 percent in December of 2001. The stimulating effect of eleven rate cuts in 2001 began to show in the economy. For example, housing starts in the fourth quarter of 2002 were up by over 10 percent compared to 2001.

Throughout 2002, the FOMC kept rates relatively stable, as the U. S. economy continued to show renewed strength. In its only action for the year, the Fed Funds rate was lowered to 1.25 percent in November of 2002. With little regard for the potential downward influence on mortgage rates and the related increase in demand for housing, the FOMC remained focused on economic weakness, even though signs clearly pointed to stronger economic performance. Indeed, the FOMC saw little risk in the sharp reduction in the Fed Funds rate. As the minutes from that November, 2002 meeting state, “members commented that the potential costs of a policy easing action that later proved not to have been needed were quite limited in that there was little risk that such a move would foster inflationary pressures under likely economic conditions over the next several quarters. Moreover, the policy easing could readily be unwound without significant effects on financial markets if the reversal appeared to be warranted by growing pressures on resources in a strengthening economy.”

In June of 2003, the Federal Reserve completed the roping part of the rope-a-dope strategy by taking the Fed Funds rate down to an unprecedentedly low of 1.00 percent. In reaction to the Fed’s move, the average 30-year mortgage rate, which had declined steadily over the second half of 2002 and the first half of 2003, dropped to 5.43 percent in June, 2003. (See Figure #3 below.) Similarly, housing starts and new home sales were expanding rapidly in reaction to the incredibly low interest rates. For example, housing starts and new home sales in June of 2003 were up by 8.9 and 27.4 percent, respectively, over the prior year. In true rope-a-dope fashion, the drastic (13 times to be exact) lowering of the Fed Funds rate over the period from January 2001 to June 2003 “suckered” large numbers of buyers and speculators into the housing market. This increased demand caused real estate prices to rise steadily and the “housing bubble,” as it has been called inflated rapidly. (See Figure #4 below.)



A reading of the FOMC minutes from the June, 2003 meeting shows no concern over the rapid acceleration in the housing market. In addition, there was no mention in the minutes of the potential harmful effects that a highly accommodative monetary policy would have on consumer and business behavior and longer term economic performance. At a Fed Funds rate of just 1.00 percent, the FOMC should have at least recognized that it was encouraging rapid and massive borrowing, spending, and capital formation. Instead, the members were focused primarily on the continuing perceived weaknesses in the U. S. economy, especially unemployment which stood at 6.3 percent. As the minutes from that meeting state, “given currently large margins of unemployed labor and other resources, the members agreed that an easing move was desirable to provide additional insurance that a stronger economy would in fact materialize.” Further, “members saw virtually no prospect that the proposed easing, though it would reinforce an already accommodative monetary policy, would incur any significant risk of contributing to rising inflationary pressures, even if the strengthening of the economy proved to be somewhat greater than they had incorporated in their forecasts.”

As would be expected, the historically low interest rates led to a rapid economic expansion over the rest of 2003 and into 2004. For the second half of 2003 and the first half of 2004, real GDP grew at annualized rates of 2.8 and 3.5 percent, respectively. Unemployment also began to drop quickly, going from 6.3 percent in mid 2003 to 4.8 percent by the end of 2004. And the housing market continued to strengthen. For example, in May of 2004 housing starts and new home sales increased by 13.7 and 13.9 percent, respectively, over the prior year. In addition, the housing price index (HPI), which measures the movement of single-family house prices, also accelerated rapidly. As Schnabl and Hoffmann (2008) note, the ample liquidity supply spawned by an accommodative monetary policy in large industrialized countries contributes to overinvestment cycles, both in economically developed countries and in new and emerging markets around the globe.

Against this backdrop of rapid economic growth, rising consumer confidence and spending, and the "inflation" of the housing bubble, it would be expected that the Fed would quickly reverse course and immediately pursue a more restrictive monetary policy. However, in a move that in retrospect seems foolhardy, the FOMC left the Fed Funds rate unchanged from July of 2003 through May of 2004. A reading of the monthly FOMC minutes during this period shows that Fed policymakers recognized the economic risks of an overly accommodative monetary policy, but they were most concerned about the unemployment rate and overall slack in the economy. FOMC members recognized that the "household sector was continuing to supply major impetus to the expansion" and household spending was "benefiting from stimulative fiscal and monetary policies, the wealth effects of rising real estate and equity prices, and increased consumer confidence about the economic outlook." However, "unused labor and other resources remained substantial, that inflation was at a very low level, and that inflation was not expected to change appreciably in either direction over the year ahead." But the members also "acknowledged that there were risks in maintaining what might eventually prove to be an overly accommodative policy stance, but for now they judged that it was desirable to take risks on the side of assuring the rapid elimination of economic slack." In May of 2004, the FOMC recognized the expansion in the housing market, noting that housing activity remained "strong across the nation and was still climbing in some regions, with reports of growing backlogs in deliveries and substantial price increases in some markets."

Overwhelming and Vanquishing (Delivering the Knockout Punch)

By the summer of 2004, the FOMC came to a full realization of the havoc they had unleashed on the economy. It was now time to fully implement the "vanquishing" part of the rope-a-dope strategy. With the housing bubble fully inflated, the world financial system awash in liquidity, and inflation contained, the Fed pulled the rug out from under the economy. Over a 24 month period from June of 2004 to June of 2006, the Fed would raise the Fed Funds rate a whopping 17 times, taking it from 1.00 to 5.25 percent. In a prediction of what was to come, the June, 2004 FOMC minutes state that a further rise in mortgage interest rates and other longer-term market rates would "represent a potential source of restraint on future household spending."

Homebuyers, builders, lenders, and investors were now caught in the trap. As was shown in Figure #3, mortgage rates, which were moving in lock-step fashion with Fed Funds rate, hit a peak in June of 2006 with the average 30 year fixed rate mortgage climbing to 6.83 percent. At the same time, new housing starts, new home sales, and existing home sales were declining sharply. For example, housing starts in June 2006 were down by nearly 12 percent over the prior year, and in December, they were down by over 17 percent. The bursting of the housing bubble was now in full force, and consumer confidence began to drop steadily. Homebuyers, especially those with adjustable rate mortgages, were getting caught in a double whammy. As was shown in Figure #4, sharply dropping demand was causing a decline in housing prices, and the increase in interest rates was leading to higher mortgage payments. The combined effect of these two factors created a downward spiral in which declines in home values led to reduced consumer confidence and spending.

Given these circumstances it would have been logical for the Fed to decisively cut rates in an attempt to stem further deterioration in the housing market specifically, and in the economy in general. Unbelievably, the FOMC waited 15 months (until September of 2007) to take action on reducing the Fed Funds rate. However, by this point the housing market had already collapsed, and the economy was on the verge of a full-blown recession. The statistics show the full measure of the disaster. Housing starts and new home sales in the fourth quarter of 2006 dropped by 24 and 32 percent, respectively, compared to the prior year. And existing home sales for 2006 dropped by 8.5 percent over the prior year, followed by a decline of 12.8 percent in 2007.

In June, 2007, even though the FOMC recognized the beginning of the meltdown in the housing market and the potential for widespread mortgage loan defaults, it still chose to keep the Fed Funds rate unchanged. As the FOMC minutes state, meeting participants “generally agreed that the housing sector was likely to remain a drag on growth for some time yet and represented the most significant downside risk to the economic outlook.” In addition, “over recent months, permits for new construction continued to decline;” “inventories of new homes for sale remained quite elevated;” and “housing activity was seen as likely to continue to contract for several more quarters.” Meeting participants also noted that “the recent increase in interest rates for prime mortgages could further dampen the demand for housing,” and “rising mortgage delinquency rates and related difficulties in the subprime mortgage market…could crimp the availability of mortgage credit and the demand for housing.” Ip’s (2007) article in the “Wall Street Journal” in August shows how out of touch the Federal Reserve officials (including Chairman Ben Bernanke) were with respect to the building economic problems, as their public statements continued to show that they were most concerned with the risks associated with higher inflation.

Trying to Do Too Much, Too Late

By the time the FOMC finally did act in September of 2007, the economic crisis was raging. In a belated response, over the next seven months the FOMC cut the Fed Funds rate six times, bringing it down to 2.00 percent in April of 2008. Even with this aggressive easing of interest rates, the damage had been done. The crisis in the housing and lending markets quickly spread to other sectors. Most notably, the mass defaults on mortgages severely devalued the securities and debt obligations that were backed by these loans. This devaluation then caused mass reductions in the asset bases of the investment banks, commercial banks, and insurance companies that were holding these instruments.

By the second half of 2008 the Fed was looking for ways to avert a worldwide economic Armageddon. The Fed was a major player in the government bailout of the financial services industry by propping up failing institutions by providing liquidity through various lending programs. As outlined in the FOMC minutes from September 2008, these steps included an expansion of collateral eligible for the Primary Dealer Credit Facility and the Term Securities Lending Facility (TSLF); increases in the size and frequency of TSLF auctions; and a temporary relaxation of the limitations on broker-dealers' access to funding from affiliated depository institutions. The Federal Reserve also agreed to pay interest on required and excess reserve balances beginning in October, 2008.

At its October, 2008 meeting, in recognition of further economic and financial turmoil, the Federal Reserve also approved a number of new facilities to deal with stresses in short-term funding markets. As stated in the 2008 FOMC minutes, it approved such facilities as the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF), which extends nonrecourse loans at the primary credit rate to U. S. depository institutions and bank holding companies to finance the purchase of high-quality asset-backed commercial paper (ABCP) from money market mutual funds; the creation of the Commercial Paper Funding Facility (CPFF), which provides a liquidity backstop to U. S. issuers of highly rated commercial paper through a special-purpose vehicle that purchases three-month unsecured commercial paper and ABCP directly from eligible issuers; and the establishment of the Money Market Investor Funding Facility (MMIFF), under which the Federal Reserve Bank of New York provides funding to a series of special-purpose vehicles to facilitate an industry-supported initiative to finance the purchase of certain highly rated certificates of deposit, bank notes, and commercial paper from U.S. money market mutual funds. All three of these facilities had the intended purpose to “improve the liquidity in short-term debt markets and ease the strains in credit markets more broadly.”

In addition to these extraordinary actions, in December, 2008, the FOMC took the Fed Funds rate to a target range of 0.00 to 0.25 percent, effectively allowing free liquidity within the financial system. In addition, in January, 2009 the Federal Reserve implemented a program to purchase mortgage-backed securities using private investment managers as its agents in implementing the program. In its final statement of 2008, the FOMC announced that its focus and policy going forward would be “to support the functioning of financial markets and stimulate the economy through open market operations and other measures that sustain the size of the Federal Reserve's balance sheet at a high level.”

Retrospective and Conclusions

Section 2a of the amended version of the Federal Reserve Act concerns monetary policy objectives. It states that the "Board of Governors of the Federal Reserve System and the Federal Open Market Committee shall maintain long run growth of the monetary and credit aggregates commensurate with the economy's long run potential to increase production, so as to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates." A review of the FOMC's performance over the nine year period from 1999 through 2008 shows how the Federal Reserve fell woefully short of that goal. As this paper has shown, the Fed's mismanagement of monetary policy began in mid 1999 when it chose to raise interest rates even though the underlying rationale for the increase, inflation, was non-existent. As the Fed drove interest rates higher over the next twelve months, they continued to cite inflationary expectations as the justification. Yet by fighting the illusion of inflation the Fed effectively pushed the economy into a recession. It appears that the FOMC failed to take into account the fact that the application of new technology, substantial increases in productivity, and heightened global competition were combining to put downward pressure on prices even in the midst of a robust economic expansion.

Once these initial mistakes were made over 1999 and 2000, the Fed then made a series of blunders that compounded the original problem. These blunders included driving down the Fed Funds rate to an overly accommodative 1.00 percent in reaction to the recession and the effects of the 9/11 terrorist attacks, waiting too long to reverse this overly accommodative monetary policy, thus causing the housing bubble; reversing course again by sharply raising rates and causing a mass decline in the housing market; waiting too long to reduce rates as the economy was collapsing in 2007 (Ip & Perry, 2008); and then failing to more quickly respond to the financial meltdown as it was unfolding in 2008.

It is difficult to speculate as to why the Federal Reserve committed this series of gaffes. The obvious short answer is that its unyielding attention to inflation, or rather, inflationary expectations, blinded it from considering other emerging economic factors such as the potential to create asset bubbles (Hunter, Kaufman, & Pomerleano, 2003). The analysis by Goodfriend (2007) and others (Cecchetti, 1998; Ireland, 2007) on the development of a worldwide consensus on the conduct of monetary policy provides a glimpse into the overarching attention paid to inflation. In his analysis, Goodfriend concludes that the need to combat or control inflation not only is the predominant focus of the Federal Reserve but of other central banks as well. This "consensus model" of monetary policy has four main practical features: giving priority to price stability, targeting core rather than overall inflation, establishing credibility in achieving low inflation, and having a preemptive interest rate policy based on clear objectives (Goodfriend, 2007). Unfortunately, as Goodfriend points out, a controversial aspect of the consensus model concerns the potential for extreme price fluctuations in the credit, equity, foreign exchange, and other asset markets and whether monetary policy can deal with them effectively. Even a casual reading of the FOMC minutes shows an almost slavish devotion to this consensus model in the conduct of monetary policy.

Beyond the economic theory rationale for the Fed's mistakes, it also appears, at least from a reading of the FOMC minutes, that groupthink might have been occurring. Groupthink is a well-recognized form of faulty decision making that can arise under certain conditions. As defined by Janis and Mann (1977), groupthink is a mode of decision making within a cohesive group where the push to make a unanimous decision supersedes the group's ability or willingness to consider other rational alternatives. Groupthink can arise based on a number of reasons, most notably: the illusion of unanimity where there is a false perception that all members are in full agreement with the decision; the illusion of invulnerability where the group feels a collective sense of infallibility and optimism; collective rationalization where members explain away information or warnings that are contrary to the decision; and self-censorship where members withhold their opinions and beliefs. In addition, groupthink tends to happen more often when there is the presence of a strong, directive group leader.

A careful reading of the FOMC minutes implies that groupthink was occurring during the period from 1999 to 2008. Indeed, the vast majority of the monthly votes on monetary policy direction were unanimous, with virtually no dissent or contrary position. When there was a contrary view, it was usually based on the magnitude of the rate change being recommended, not the direction. As a quasi-governmental entity that is free from political pressure, the Fed is insulated from strict governmental oversight. The deliberations of the FOMC take place in secrecy and decisions on monetary policy reflect the conventional economic wisdom of the Governors, the internal Federal Reserve Board staff, the twelve Reserve Bank Presidents, and the economic research directors of each Reserve Bank. The only tangible external influence on the FOMC is through the Boards of Directors of each Federal Reserve District, who have indirect input into the conduct of monetary policy by advocating the direction on the discount rate, and various advisory councils. Other than this input, however, the FOMC operates in a vacuum which provides fertile ground for groupthink to exist. In addition, the individuals involved with the FOMC are typically Ph.D.-holding economists with academic backgrounds. This uniformity in background and training, and the attendant lack of real business experience, can also produce insular thinking that can breed group think.

Finally, another factor that might have influenced the FOMC's decision making and the development of groupthink was the lack of turnover of Reserve Bank Presidents during the late 1990s and the early 2000s. With the exception of the Federal Reserve Bank of Philadelphia, every other Reserve Bank President was in place during the period from 1998 through to 2003, with the average tenure for their time as a Reserve Bank President being roughly 14 years. (See Table #1 below.) This stability in tenure of the Reserve Bank Presidents likely led to a high degree of cohesiveness, uniformity in thinking, and the development of premature consensus in the direction of monetary policy. In addition, the long tenure of the Chairman of the Board of Governors, Alan Greenspan, who was known as a directive leader who preferred consensus over dissent (Woodward, 2000), added to the prospects that groupthink could occur.

Table #1
Listing of Reserve Bank Presidents in 1999

District	President	Tenure
1 - Boston	Cathy E. Minehan	1994-2007
2 - New York	William J. McDonough	1993-2003
3 – Philadelphia	Edward G. Boehne	1981-2000
4 - Cleveland	Jerry L. Jordan	1992-2003
5 - Richmond	J. Alfred Broaddus Jr.	1993-2004
6 - Atlanta	Jack Guynn	1996-2006
7 - Chicago	Michael H. Moskow	1994-2007
8 – St. Louis	William Poole	1998-2008
9 - Minneapolis	Gary H. Stern	1985-Present
10 – Kansas City	Thomas M. Hoenig	1991-Present
11 - Dallas	Robert D. McTeer Jr.	1991-2004
12 – San Francisco	Robert T. Parry	1986-2004

Source: Federal Reserve Bank Presidents 1914 – Present, Federal Reserve Bank of St. Louis, http://stlouisfed.org/about/fed_presidents

Recommendations for the Future

As an independent governmental agency, the Federal Reserve is free from direct, ongoing congressional oversight or political pressure. When the Federal Reserve performs well in the management of monetary policy, it fulfills its stated objectives of promoting effectively the goals of maximum employment, stable prices, and moderate long-term interest rates. However, when Federal Reserve policies go off course, as in the present case, the potential harm to the nation's and the world's economies can be catastrophic. While some, such as Congressman Ron Paul of Texas, have called for the complete elimination of the Federal Reserve and the repeal of the Federal Reserve Act (Kirchoff, 2007), and others have called for the Fed to be restrained (O'Driscoll, 2008), it is more prudent to perform a thorough re-assessment of the Fed's analytical procedures and its decision making processes.

First, the FOMC should re-assess its singular attention to inflation and inflationary expectations as the primary factors in guiding monetary policy. As this paper has shown, attention to inflation dominated the focus and the discussion at the FOMC meetings, even in those cases where other economic factors should have been the critical areas of attention. In many cases, concerns over inflation influenced the monetary policy decision in one direction, when other economic factors would have dictated a decision in the opposite direction. In addition, concerns over inflation led to rapid and wide swings in interest rates which created a boom-bust-boom-bust scenario over a single decade. Clearly, creating these types of swings in interest rates and economic performance go against the primary objectives of the Federal Reserve.

Second, the FOMC should examine its decision making processes to determine whether an underlying push to conformity has led to faulty decision making outcomes such as groupthink. With the antecedent factors identified previously, it is possible that groupthink could occur, especially with the high degree of similarity in training and background not only of the FOMC members, but the Board of Governors and Reserve Bank economic research staffs as well. Going forward, the FOMC should assess the viability of various techniques to combat groupthink. These approaches could include the pre-appointment of a "devil's advocate," the use of blind votes on monetary policy decisions, and the provision of training to group members to understand, detect, and combat groupthink.

In summary, it is unfortunate that the mistakes made by the Federal Reserve over the first decade of the 21st century have led to an economic crisis. Without question, the Federal Reserve remains a necessary institution to safeguard the nation's and the world's economies. One need only consider the calming actions of the Federal Reserve after the 9/11 terrorist attacks to recognize its value and necessity. Nonetheless, one can also only wonder how the economy of the United States (and the world) would have been different if the

FOMC had heeded the advice of Robert McTeer in June of 1999 and left the Federal Funds rate alone, and then kept interest rates relatively stable over the ensuing nine years. Chances are there would be no deflated housing bubble, no stock market crash, no financial meltdown, and no government bailouts.

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Appendix

Listing of Sources for U. S. Economic Data

Statistic	**Source**	**Website**
Real Gross Domestic Product	U. S. Department of Commerce: Bureau of Economic Analysis	www.bea.gov
Unemployment Rate	U. S. Department of Labor: Bureau of Labor Statistics	www.bls.gov
Core Consumer Price Index	Federal Reserve Bank of Cleveland	www.clevelandfed.com/inflation
Consumer Price Index	U. S. Department of Labor: Bureau of Labor Statistics	www.bls.gov
Housing Starts	U. S. Census Bureau	www.census.gov
Average 30-Year Mortgage Rate	HSH Financial Publishers	www.hsh.com
Consumer Confidence	Advertising Age	www.adage.com

New Home Sales	U. S. Census Bureau	www.census.gov
Existing Home Sales	National Association of Realtors	www.realtor.org
Housing Price Index (HPI)	U. S. Office of Federal Housing Enterprise Oversight (OFHEO)	www.ofheo.gov/hpi

Note: The title graphic was designed by Carole E. Scott

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