

Pathway to Change: A Model of the Evolution of the Federal Reserve System

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March 2009

***Abstract:** Serving as the gatekeeper between the political process and the money supply, the Federal Reserve is extremely powerful, but also makes it susceptible to both economic ideologies and the influence of popular government. This paper presents a model for the evolution of the Fed that incorporates both the influence of popular economic theories and the influence of the political process. By exploring three major US economic crises since 1929, this paper argues that a loss of confidence in economic orthodoxy and the support of Congress must be present for long-term change to occur.*

The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed, the world is ruled by little else.

-John M. Keynes, *The General Theory of Employment, Interest, and Money*

Much has been written about how large organizations—states, international agencies—evolve and grow. But how do smaller organizations grow, especially ones with unique sets of constraints that do not allow them to evolve in the same organic way that states can? The modern Federal Reserve is one such organization, and there are no ready-made theories explaining its history since its creation in 1935. Neither private nor public, it is the most important single entity in the American economy and its policies are analyzed minutely. Yet for all the attention, there is an absence of scholarship analyzing what influences the changing structure of the Fed, a structure that determines the policies the Fed can enact and the policies the Fed will want to enact.

Theories of institutional change offer insights into how the Federal Reserve might change in times of crisis. Two well-known schools of thought that are applied to this question are institutional structuralism and economic determinism. Structuralism argues that it is the processes and structure of the Federal Reserve that best predict the actions the Fed will take in crises. Economic determinism argues that the specifics of the crisis shape the policies that make of the Fed. A newer theory that also tackles the question of institutional change from a novel perspective is ideational change. Ideational change theory argues that in times of great chaos when institutions do not know the ramifications of their actions, they will fall back upon general worldviews of how the world works and where their institutions exist in it.

Each of these theories tells a different narrative of not just the end result of the Fed's decision-making process, but also how the Federal Reserve functions as an organization. As a

bureaucracy with a highly unique structure that does not change often, analyzing how individuals act within the constraints that US law has imposed on the Fed can produce insights into more than just the future of US monetary policy. The findings will provide insights into how individuals working within larger systems make decisions.

This paper will test the three theories by analyzing three acute economic crises during the twentieth century: the Great Depression, the Stagflation Crisis of the early 1980s, and the 1997 Asian Financial Crisis. I will show that the Federal Reserve's creation as a reaction to the Great Depression required its first chairman Marriner Eccles and Congress to support that new legislation restructuring the US central banking system. I will then look at the opposite case of the 1997 Asian Financial Crisis, when no new restructuring occurred, either from policies of the Chairman of the Fed or from Congressional legislation. Finally, I will argue that though the rise of Monetarism had the backing of all the primary policy makers from the chairman of the Fed to President Reagan, the deep recession that it created to defeat stagflation made it so unpopular that it could never find lasting institutional support.

The empirical findings of this paper show that ideas have a meaningful impact on the Federal Reserve, but their impact is limited to determining the moments when change is most likely to occur. The institutional structure of the Federal Reserve best predicts the new course the Fed might take in moments when ideas make possible large change.

Three Approaches to Institutional Change

Why do institutions change? How do they change? In the past thirty years, there have been great changes to the theoretical answers provided by institutional scholars to these questions. Stephen Krasner noted in 1984 that in the early eighties a whole new set of theories arose, all challenging the orthodox reading that institutions change slowly, methodically, and at

an even pace (240). These new theories—for the 1980s at least—stressed varying long periods of peace and stasis followed by moments of crisis. Since then, scholarly work has arrived that attempts to provide a narrative for these cycles of crisis and equilibrium. That narrative has focused around three main independent variables: the crisis at hand, the structure of the institution, and the process of ideational competition.

Some political scientists argue that it is the type and magnitude of crisis itself that determines how institutions will evolve. They argue that governments respond to crisis by creating policies that are best suited to end the crisis as quickly as possible (Hill 2003: 168). Governments are always tweaking policies but larger crises require larger tweaks. To prove their point, they focus on how an economic crisis interacts with the political decision-making process and compels the politician to make certain choices. The political process has little if anything to do with the actual response that a government will make. There have been political scientists who have made this argument, but it is essentially an economic argument more concerned with connecting different statistics that measure the health of the economy with different responses. This reading of institutional change is seriously problematic for the political scientist interested in examining the workings of institutions because the entire response is explained exogenously (Hays 2003: 219). A model using economic determinism thus can make very precise predictions about an institution's response to a crisis but can say little about how the institution evolves. This theory also is the simplest to test. If two similar crises produce opposite results, the theory is wrong.

Ideational theory takes the opposite approach to explaining institutional evolution. Instead of hard economic data explaining the response and evolution of an institution, broad ideas are the main independent variable. In a rationalistic framework, ideas are exogenous to

preference-formation as they function in an alternate realm of subjective beliefs, hopes, and expectations.¹ Most of the time, ideational theorists point out, these subjective beliefs are closely aligned with the objective value of a choice. But they are not always the same. Alexander Wendt emphasizes this saying “It is the *perception* of value in an object that constitutes the motive to pursue it” (1999: 123). In situations that are highly unique the difference between perception and intrinsic value diverges because institutions and participants do not have past experiences to orient the value of their choices (Blyth 2006: 495). Thus they must rely upon novel ways of defining value. These new ways of assigning value are what ideational theorists call new ideas.

Models using ideas as their main independent variable offer a compelling account of great changes to institutions, but unfortunately, they are often lacking in the detail that is the strength of an economic determinist model. The most noteworthy writer using ideas as the explanatory variable is Mark Blyth, and his main unit of analysis is the nation. At this macroscopic level, Blyth’s argument is powerful, but it remains to be seen if when looking at institutions smaller than countries and national economies ideas can make sensible predictions; there just might not be enough actors and organizations for ideas to be useful. To argue that ideas are the main explanatory variable, first it must be shown that there is competition between two or more different ideas, and then show that one triumphed.

A third approach uses the structure of the institution itself as the main explanatory variable. There are an infinite number of ways to organize people, and structuralists all claim that each one of those combinations matters and produces a unique evolutionary process. This is a broad set of theories, but each emphasizes the different types of relationships that actors in an organization have. Peter Swenson, for example, argues that it is the difference between the antagonistic labor/business relations in the US and the cooperative labor/business relationship in

Sweden that accounts for the great difference between the liberal market economy of the US and the social market economy of Sweden, even though they both had very similar economies at the end of World War II (Swenson 2002: 43). Structuralism's greatest strength is that change is endogenous. The researcher must only look at the Fed and its structure, not nebulous ideas or economic datasets.

All three sets of theories described above use states as the unit of analysis. The Federal Reserve is not a state, and it does not grow and evolve as naturally or organically as the theories above describe states. The Fed has two different mechanisms for making large policy changes: the personnel of the Fed make short term adjustments based on their skills and expertise that got them appointed by Congress. Congress passes legislation that changes the structure of the Fed in the long-term. The majority of the literature concerning the Federal Reserve's structure and evolution concerns the former mechanism. Ehrmann and Fratzscher working with data from 1999 to 2004 find that the Federal Reserve makes most of its decisions through compromise within its main steering committees (Ehrmann and Fratzscher 2007: 536). This finding is contradicted by another study using data from the 1970s that found that certain members of the Fed carry more weight than others (Chappell, McGregor, and Vermilyea 2004: 421). They find that the chairman has sway over at least forty percent of the votes cast (Chappell, 2004: 417). Even if the Chairman's power is diminishing, he still holds great weight in shaping the Fed.

Main Arguments

The first step of the process of Federal Reserve structural evolution is that economic crisis destroys faith in the orthodox economic theories of the moment among academic and policy economists. Without this dissolution of economic orthodoxy, the Federal Reserve is locked into a set mode of evaluating the crisis based on how the Fed is structured. If a crisis

becomes large enough, the Federal Reserve will have to discard its prior thinking if it is to have a hand in helping end the crisis.

Once the Fed has lost the ability to rely on orthodox economic thinking, leadership becomes critical.² As Chappell, et al have shown, historically, the chairman has been able to unilaterally set the agenda of the Fed because his vote carries so much weight. With this implicit institutional power, the personal history of the chairman becomes important for ascertaining how he will decide. His background, academic history, and relationships will determine the evolution of the Federal Reserve in the short-term because the structure of the Federal Reserve has given him so much room for discretion.

If an economic idea is going to have a lasting impact on the Fed, the federal laws that govern the structure of the Fed must change. The choices that the chairman makes in the second step of this process come under close political scrutiny by Congress. This oversight creates a third barrier to long-term Federal Reserve structural change. Whereas the chairman has free reign to translate his past experiences into policy, Congress is accountable to many different constituencies. Again, the process of decision-making of the Fed is a key factor because it requires implicit Congressional approval.

In this study, I have chosen three cases. Each case has a variable degree of loss of confidence in orthodox economic ideas and a different amount of change in the Fed so that I can elucidate the relationship between loss of confidence and the resulting structural changes (see Figure 1). The Great Depression sits at one corner of my variable space: economic orthodoxy was discarded and long-term change occurred. At the opposite corner sits the 1997 Asian Financial Crisis. The Stagflation crisis of 1979 is located between these two extremes: full-employment Keynesian theory was rejected, but the Fed only saw short-term change. In order to

explain the difference between the Great Depression's long-term structural change and the Stagflation Crisis's short-term policy change, I will use the institutional variable.

I define long-term change as whether or not Congress passes legislation changing how the Federal Reserve operates, whether that legislation be restructuring, restrictions or empowerment. My definition for widespread loss of confidence in economic orthodoxy is if there are many influential economists or politicians arguing that the Fed is going about their job in the wrong way and that certain parts of the Federal Reserve believe them. The Fed has had only one organization since 1935, but its structure gives rise too much discretion on the part of its chairman as Chappel et al point out, and this discretion is what I call the institutional variable.

Great Depression

Michael Bleaney starts his study of the rise and fall of Keynesianism saying, "In one sense the Keynesian revolution was purely the product of one person's mind. Others made a significant contribution, but if the mind of John Maynard Keynes had worked differently"... (Bleaney 1985: 1). But Bleaney goes on to note that without the Great Depression and the crisis of economic theory it created, Keynesianism would not have had the chance to spread in popularity. Bleaney hints at the contradiction the beginning of this case study will tackle: who created Keynesianism, John M. Keynes or the Great Depression? I will show that once there was a loss of confidence in the economic thinking of the 1920s, it was the Depression itself that dictated the main policy tenets of Keynesianism to the Federal Reserve's first chairman, Marriner Eccles. He took that knowledge and, using the latitude the new structure of the Federal Reserve gave him as chairman, applied it to the beginning of the Federal Reserve. It was the passing of the Banking Act of 1935 by Congress that institutionalized the policies championed by Eccles setting them in institutional stone that has been largely unchanged.

The decade of 1920-1929, flanked by catastrophes at each end, was a period of exceptional growth for the United States. This great prosperity was tied to an economy and money supply that was not controlled by the Fed.³ With so much gold and money coming into the United States, private banks no longer had to rely upon local branches of the Federal Reserve to supply them with credit (Rooker 1997: 64).

Even before the Crash, there were contradictions in the actions of the Fed that exposed different influences within the Board of Directors. The Fed and its member banks could not decide whether maintaining international exchange rates or containing inflation was more important (Rooker 1997: 68). This inability to set priorities had real policy consequences. Maintaining the Gold Standard and exchange rates called for low interest rates that would encourage outflows of gold to Europe, while low interest rates encouraged cheap money, speculation, and inflation in the US. This contradictory reasoning would continue after the Crash of 1929. The confusion outside the Fed due to the Crash exacerbated and made more glaring the confusions within the Fed (Chandler 1971: 129).

The St. Louis branch of the Federal Reserve highlights these fundamental contradictions as the Fed groped for a new strategy to deal with the new post-Crash economy. The Governor of the St. Louis branch argued that injecting money into the economy through open-market operations was useless, saying “I cannot see how the situation can be benefited by putting fifty millions of dollars, or, in fact, any other amount, into the general market.” The Deputy Governor of the St. Louis Fed, speaking for the local branch said, open market operations would have no economic effect but might “psychologically” provide “some benefit” (both quotations in, Chandler 1971: 142). This difference in St. Louis’s thinking mirrored the entire system with some branches arguing vehemently for interventionist policies and others arguing against such

policies.

Whichever point is correct, the effect of not having a cohesive vision of what the Fed should do cost the entire system the confidence of many. Walter Lippman, the influential columnist and founder of *The New Republic* magazine wrote in 1932, “In so far as it is possible by monetary policy to deal with the situation, the only agency in which American people can afford to put their trust is the Federal Reserve System.” Two weeks later, he wrote that he had lost that trust (Shull 2005: 101).

By 1932, the orthodox economic theories had been dismissed by the Federal Reserve branches. If the economic determinist model had been correct, all the actors inside or outside the Fed viewing this crisis would have come to the same conclusion about what economic policies to advocate. They were not in agreement. If the structuralist argument had been correct, then the Federal Reserve branches would have been in agreement. The example of the St. Louis branch shows that even within branch banks, actors located at the same point in the Fed could not decide what was needed. This chaos is best explained through the loss of confidence in the orthodox economic model of the 1920s.

It is at this point in 1933 that the process of Federal Reserve evolution moves from being explained by ideas to being explained by institutions. In the next section of this case study, I will show that Marriner S. Eccles’ personal vision of the causes of the Great Depression translated directly into the demand-priming monetary policies of the Fed in the late 1930s.

There are few backgrounds and circumstances that are less likely to have produced the first Chairman of the Board Governors. Marriner Eccles had a Utah upbringing far from the East Coast political and financial establishment. His father, David Eccles, built a moderately large conglomerate of banking and natural resource extraction using his and his families hard work,

never going into debt (Weldin 2000: 39). He indoctrinated in his son the same self-reliance, a belief in the thinking of Adam Smith, and a faith in the power of markets that led him to such exemplary success in business.

Raised in this environment, it is not surprising that Eccles was a strong supporter of the status quo of the 1920s boom. In a speech he gave in 1925, Eccles first pointed out that the first 25 years of the twentieth century had seen greater increases in material wealth than all other centuries before it, and he then argued that financial institutions of the day were more than equipped to “keep pace” with the new levels of prosperity and growth (Egbert 1967: 8). In another public speech he gave in 1928, his views were identical.

The Crash of 1929 did not shake Eccles’ faith in the redemptive power of depressions as extreme examples of the market correcting itself. It was only after multiple years of experiencing continued depression without the self-correction and increased efficiency that conservative economist espoused as being benefits of downturns in the economy that Eccles began to question the orthodox interpretation that depressions were while unfortunate, ultimately efficiency enhancing events (Egbert 1967: 10).

By 1932, Marriner Eccles was becoming widely known not only as an influential banker, but also as a progressive banker, and his new views came from his on-the-ground experience of the Great Depression. Working as the president of a chain of banks Eccles personally used his personal skills to fend off runs on his bank (Egbert 1967: 13). Egbert titles this section of his biography of Eccles “The Awakening,” and dealing with the interconnectedness of banks in the West made the need for a central organizer and insurer of banks obvious to Eccles. His new views on banking greatly mirrored those of Keynes in attending to priming the economic pump and guaranteeing the money supply. Eccles reflected in an interview with Fortune magazine in

April 1937, “The most efficient machine-tool manufacturer in the world could, for example, do nothing if he had no orders on which to work,” showing that he had long moved past the simple concept that hard work and thrift could revive the economy. He also made the key Keynesian differentiation between the microeconomy and the macroeconomy and realized that there were different definitions of prudence for each.

Nevertheless, Eccles disavowed any theoretical or pedagogical relationship with Keynes. In his memoirs, Eccles devotes a single paragraph to Keynes, and then only to emphasize the distance between the two:

I doubt whether any of the men in my room had ever heard of John Maynard Keynes, the English economist who has frequently been referred to as the economic philosopher of the New Deal. At least none of them cited his writing to support his own case, and the concepts I formulated, which have been called ‘Keynesian,’ were not abstracted from his books, which I have never read. My conceptions were based on naked-eye observation and experience in the intermountain region. Moreover, I have never read Keynes’ writings except in small extracts to this day. (Eccles 1951: 131)

Even later in his life, Eccles maintained that there was no relationship between his ideas and Keynes, and he emphasized how his ideas came about from the experiences of running banks in the West (Egbert 1967: 36). When his main economic assistant summarized Keynes’s ideas to him, he accepted them as “Nothing New!” (Israelsen 1985: 361).

Once Eccles became the Chairman of the Fed, he directly translated his theories of demand stimulus to extant Fed policy by sharply loosening monetary policy and setting a goal of using the supply of money to stimulate full employment. He used his power to open the money supply by dropping interest rates. Before 1935, the interest rate was 4%. In 1930, it was even higher at 6%. Eccles dropped the rate below 2% upon becoming chairman, and kept it there until the late forties. Eccles’ rationale for this drop was to stimulate credit, spending, and employment. These were the antidotes to depression that Eccles had concluded were needed in the early 1930s before he became chairman.

The Banking Act of 1935 took Eccles' ideas of how a central bank should work and turned them into a permanent organization. The Act clarified distribution of power in the Federal Reserve, strongly centralizing power in the new Board of Governors. As I have noted before, it was the factionalization and decentralization of the Federal Reserve System composed of strong branches that caused much of the chaos of the post-Crash period. With the passage of the act, those voices powers were consolidated into Chappel et al's all-powerful chairman.

As in most American political debates the main discussion in Congress was an argument over centralization. The two sides argued over how much power the Federal Reserve should have to act unilaterally. There were factions who wanted Congress to have a greater control over the Federal Reserve. These congressmen were worried that the Federal Reserve would be "built by the bankers themselves for the purpose of controlling money" for their own benefit (Klatil 1994: 153). With greater oversight, the Fed would be more accommodating the needs of the people represented by Congress. Some congressmen went further, opposing the bill entirely. FDR and Eccles strongly lobbied for the bill. Eccles was the keynote witness who appeared both in front of Senate and House committees advocating on its behalf. Roosevelt wrote a letter to leaders in the House and Senate highlighting what he felt were the key parts of the bill that could not be compromised (Egbert 1967: 87).

But even with this lobbying, the main opposition senator, Carter Glass, said after the bill had been signed, "We did not leave enough of the Eccles bill with which to light a cigarette," and Eccles spent the rest of his public life attempting to amend the bill to give the Fed the power that he thought it deserved and needed (Weldin 2000: 68). Eccles' vision for the Federal Reserve's long term role was not perfectly translated into law. Men like Carter Glass had a large say in the structure of the Fed, a say that would not exist if it were not for the unique structure of the

Federal Reserve.

Even when the changes are considered, Eccles and Roosevelt achieved a spectacular reorganization of the Federal Reserve turning it into a centralized decision-making body that could implement the discretionary policies that both felt were needed to end the Depression. But the process to the Banking Act was a long one. Had there not been an initial crisis, influential men like Marriner Eccles would not have abandoned their previous *laissez faire* economic belief that less government was better for the economy. But for Eccles' personal experiences and the power to employ his ideas, the Federal Reserve would have been much a more conservative and decentralized organization. Had Congress not have had the right to meddle in the business of central banking, the Federal Reserve would have been a much more centralized organization. In short, once the orthodoxy fell apart in 1933, the Federal Reserve's structure—as it still is today—had two main creators: Marriner Eccles and Congress.

The Asian Contagion

During 1997-1998, a global financial crisis ignited in East Asia and spread west to Russia and South America. In the United States, large stock market drops in 1997 due to the initial crisis in Thailand, South Korea, and Japan were followed ten months later by larger declines when Russia defaulted on its foreign debt. But while the effects of these shocks made big waves on US stock indices, Fed Chairman Alan Greenspan never made any change to the policies or direction of the Federal Reserve. Policy elites like Greenspan and Treasury Secretary Robert Rubin and their subordinates had an interpretation for the problem that addressed the crisis accurately without burdening greatly the United States political process.

Unlike two of his predecessors, Eccles and Paul Volcker, Alan Greenspan (chairman from 1987-2006) had already been serving as Chairman for ten years when the crisis hit in 1997.

Greenspan had overseen nine years of sustainable growth, but by the end of 1996, a novel problem was beginning to dawn for the Fed chairman: the great efficiency gains that new technologies were giving the economy were now leading to the problem of investors undervaluing risk and overvaluing the companies and stocks they owned. “Irrational Exuberance” in Greenspan’s words was a creeping challenge (Greenspan 1996). Using his power in the Federal Open Market Committee, Greenspan attempted to reign in this exuberance with higher and higher interest rates and using his public appearances to warn against the excitement. Heading into 1997, Greenspan already had a clear ideology about the reasons for the great growth of the US economy and what the greatest threat to its continued stability was.

Like any situation faced by central bankers, Greenspan did not have perfect information or know exactly what the situation called for in the summer of 1997 when it became clear that Thailand’s central bank had gone broke and was destabilizing South Korea’s economy. Greenspan had many questions about how the United States should react to the worsening Asian situation (Woodward 2000: 189). What unintended effects would a bailout of Thailand and South Korea have on the rest of Asia? What level of interconnectedness did Korea, the rest of East Asia, and the US have? The situation faced in Asia was novel in several ways. The central bank of South Korea, the world’s eleventh largest economy, was on the verge of defaulting on a large amount of its debt held by foreigners, especially the US and Japan. But the most novel part of the situation was the interconnectedness of the crisis. “[F]rom weakness in Thailand, like dominoes, markets collapsed in Thailand, Indonesia, Malaysia, Korea, and Russia” (Hetzel 2008: 215).

While Greenspan did not have answers to the particular consequences that the United State’s actions would have upon the rest of the world, he had a deeper interpretation that its cause was uneven technological growth. As he wrote in his memoirs, “the imbalances caused by

the technology revolution and rapidly globalizing markets were straining the world's financial systems" (Greenspan 2007: 192). Bob Woodward elaborates on Greenspan's thinking:

Greenspan understood that new technology, which had created the global economy in which capital flowed quite freely, had a punishing downside. The shock of a financial disturbance in one large country could be transmitted swiftly and decisively around the world. ... [W]hile the probability of a disaster might be small, the outcome could not be left merely to chance, Greenspan believed. (Woodward 2000: 190)

What was causing the crisis according to Greenspan was a kind of international exuberance of investors and central banks brazenly moving money into and out of national economies and currencies. The rapid pace at which these transactions took place would have been impossible ten years ago, when Greenspan was just starting his tenure as Chairman (Hetzel 2008: 214), but after dealing with the booming economy in the United States after the 1991 recession, Greenspan recognized what was unfolding in Asia.

Greenspan's interpretation of the crisis did not require the Federal Reserve to use its power. Treasury Secretary Robert Rubin organized US banks and other countries to participate in a moratorium halting the calling in of loans made to South Korea. In December of 1997, the IMF approved a 57 billion dollar loan for Korea. But for the Federal Reserve, 1997 was a quiet regulatory year. As Figure 2 shows, the effective federal funds rate, the rate that the Federal Reserve loans to banks, held steady from 1996 to the very end of 1998 never dipping below 5% and never exceeding 6%.

It was only at the end of 1998, when unlike in the case of Korea, the US failed to divert Russia from defaulting on its debt that Alan Greenspan began to alter his thinking and the Federal Reserve began to use its power to alter the interest rate. In Greenspan's words, "the Russian crisis had prompted a major rethinking at the Fed" (Greenspan 2007: 192). Instead of narrowly focusing on the financial situation in the United States, Greenspan was beginning to realize that the technological revolution was reaching a point when the Federal Open Market

Committee would have to include the world economy in its deliberations of how to tweak the US money supply. Greenspan may call the Fed's expanded considerations when setting monetary policy "major rethinking," but the new method clearly arose from ideas already in place in Greenspan's thinking. The fundamental process of setting monetary policy was not changed, Greenspan just had a reminder that he could not ignore what lay beyond US borders.

The 1997 Asian Financial Crisis and the 1998 Russian default produced real changes in how the Federal Reserve operates, the most noteworthy change being Alan Greenspan's expanded consideration of the world economy when setting the interest rate. But while these were real and measurable changes, they arose from Greenspan's continuing education as the world's most important central banker, and were not subsequently mandated by Congress. While he had noticed irrational exuberance in the domestic economy since the mid 1990s, it took until the 1998 for him to realize that he had to consider irrational exuberance in the international economy. Greenspan's underlying theory about how the Fed should operate did not change.

This case strongly supports that without a loss of confidence in the economic orthodoxy, the Fed will not change, and undermines the economic determinist model. Had the Fed reacted immediately to the economic crisis, economic determinism might have made sense. Instead, the Federal Reserve allowed Robert Rubin at Treasury to take the lead in confronting the crisis and did nothing immediately. What little change did occur to the Federal Reserve's policies can best be explained by Alan Greenspan's new personal thinking on the causes of the world crisis. He put that new knowledge to use expanding what indicators geographically the Fed considers when setting the interest rate, and he was able to do that because of the wide latitude he had as chairman.

The Stagflation Crisis

While the United States has never seen a depression as long and deep as the Great Depression, the Stagflation crisis of the early 1980s was much greater than the Asian Financial Crisis. As I will show, much like the Great Depression, the crisis of stagflation and its origin as a supply-side shock was a novel challenge that the orthodox Keynesian theory that had dominated until the 1960s could not address. In the Great Depression, Marriner Eccles took his experiences of banking runs in Utah and used the institutional power of the chairman to open the money supply. Paul Volcker, the chairman of the Fed from 1979 to 1987, also used his experiences to fashion a new policy for the Federal Reserve. But his experiences were not from practical banking, they were from the world of academia, and the policies he chose were based on monetarism. But the high interest rate (over 20%) that monetarism prescribed to cure inflation was as severe as the symptoms caused by the stagflation itself. Congress, accountable to the people experiencing the depression without the economic knowledge Paul Volcker had, never would endorse bills to restructure the Fed in such a way that would make permanent the policies that had led to such a severe depression.

The early 1970s saw the same confusion at the Fed over what the purpose of monetary policy was that existed before and immediately after the Great Depression began. Guttman notes that “We can observe precisely such a combination of paralysis, [and] disintegration” in the 1970s similar to the Great Depression (Guttman 1994: 137). Using the tools that it won from the Banking Act of 1935, the Federal Reserve spent the 1950s and 1960s engaged in tweaking money-market conditions. When the public demanded more money, the Fed used policy to let out enough to satisfy demand. Illustrated in Figure 3’s graph of the change in the Consumer Price Index, the result of this policy was a prioritization of the short term stability of interest and employment over long term stability of inflation (Guttman 1994: 151). The Fed spent the 1950s

and 1960s maintaining exceptional growth without inflation. But with this micromanagement, inflationary pressure was building.

In 1972, yearly inflation was a moderate 3.2%. In 1974, it increased to 11%. Richard Nixon's price-fixing scheme of 1971, the "New Economic Policy," was the first major rebut to the Federal Reserve's management of the money supply. By mandating the price level of wages and commodities, Nixon attempted to apply the same discretionary logic for prices and thus monetary policy that the Federal Reserve had used directing the interest rate. Besides being short sighted, Nixon's usurpation of the Federal Reserve's role as monetary supervisors showed how little the president and the Congress trusted the Federal Reserve.

Instead of asserting its rightful, non-political place, as the keeper of the currency, the Federal Reserve Board in 1971 supported Nixon's anti-market reforms. While the priorities of the Federal Reserve had been growth and inflation control for the fifties and sixties, the new priority for the Fed was to "foster financial conditions (1) consistent with the aims of the new governmental program, (2) including sustainable real economic growth" (Federal Reserve Board 1971: 994). The Federal Reserve had actually deprioritized sustainable real economic growth below the needs of the president! The Federal Reserve surrendered its power to use its own skills to decide what was best for the economy. Like in 1932, the Federal Reserve Board had surrendered the public trust and neutrality required to manage the money supply. While in the 1930s the Federal Reserve surrendered its trust due to infighting and in the 1970s it surrendered it to political expediency, the effect of losing the authority to manage the economy was the same.

Nixon hadn't made a bad choice by not trusting the Fed. Seven years later, businessman G. William Miller, the chairman of the Fed for a total of seventeen months before Volcker, chose to enact a policy of easy money and low interest rates in 1979, directly leading to the oil shock,

which was the immediate cause of the jump in inflation (Rostokowski 2003: 6).

By 1971, the orthodox policies of maintaining full employment and low interest that had supported the postwar boom were being overshadowed by creeping inflation. The exogenous oil shocks in 1974 and again in 1979 would unleash two decades of repressed inflation on an unsuspecting nation. Like the period between the 1929 Crash and the appointment of Eccles in 1935, the period of 1971-1979 was a period of aimlessness for the Fed. As we can see Nixon attempted to step into the role vacated by the Fed, and Miller attempted to wrest it back, but with a policy that caused problems without solving anything.

Unlike the period before the Crash of 1929, there was an influential dissenting voice before the Stagflation Crisis. With Anna Schwartz, Milton Friedman published his masterworks *A Monetary History of the United States, 1867-1960* and *The Great Contraction, 1929-1933* that both attempted to re-establish the importance of the money supply as something that could not just be tinkered with to achieve certain desired goals. In the keynote address of the 1967 meeting of the American Economic Association, Friedman listed what money could and could not do. Although money can't peg interest rates or peg employment levels permanently like the Federal Reserve had attempted to do during the 1950s and 1960s, "Money can and does have important effects on these real magnitudes" (Friedman 1968: 11). Ending his speech, Friedman argued that the best course for the Federal Reserve to take would be to set a target for size of the money supply and slowly increase it each year. This non-discretionary policy would give the money supply the neutrality that, according to Friedman would keep it from being destructive.

The man who would implement Friedman's policy with his appointment to Chairman in 1979 was Paul Volcker, and he was the model of an elite-educated, central banker, cast from a very different mold than Marriner Eccles. Volcker graduated Princeton, got his masters degree in

public administration from Harvard, and studied at the London School of Economics. Before his appointment as Chairman of the Federal Reserve, Volcker worked in the Federal Reserve Bank of New York, Chase Manhattan Bank, and the Treasury Department (Rostokowski 2003: 3). Paul Volcker fits the bill of an aloof central banker, a man who is “a breed apart from the rest of humanity,” able to direct the economy without regard to individual interests (Neikirk 1987: 8). His elite education and independent personality created a man who would not become a partisan for any economic ideology.

A little over two months after Volcker was appointed chairman, he called a press conference after a secret meeting of the Federal Open Market Committee and announced that the United States would not increase the money supply until prices stabilized (Rostokowski 2003: 22). The plan was impressively simple, incredibly effective, and destructive. Throughout 1980, the prime interest rate increased and reached a high of over 20% at the end of 1980. By 1982, the Federal Reserve declared victory over inflation, a victory Krugman calls “the great triumph of U.S. economic policy in the decade” (Krugman 1999: 55). Friedman’s rigid and demanding economics had found a good practitioner in Paul Volcker. The rest of the world suffered, but Volcker had the institutional power to see his inflation-killing mission through to the end.

After Volcker’s victory bringing inflation back to reasonable levels, the Federal Reserve quickly abandoned its monetarist policies using new Congressional regulations as an excuse for abandoning monetarist rigor. In its 5 October 1982 meeting, the Federal Open Market Committee said “it would not set a specific objective for its [the money supply’s] growth” because “no basis existed for predicting its magnitude” with the new Monetary Control Act of 1980 (Timberlake 1993: 360).⁴ Due to the unpredictable nature of the money supply caused by the new regulation, a discretionary monetary policy was essential until enough information was

gathered to predict the money supply again. Thus, the experiment with Monetarism in the Federal Reserve lasted almost three years exactly.⁵

During the three years that Volcker and the Federal Reserve implemented their tough love solution to inflation, the economy shrank more greatly than any time since the Great Depression. Construction and building virtually ground to a halt, and many farmers had their land auctioned when they could not get affordable loans. Those hurt vocally complained to Congress to force The Fed to loosen the money supply before inflation was broken (Shull 2005: 142). Having experienced interest rates shoot so high and quickly forgetting the pain of inflation, the country was against any policies, either from the Fed or from Congress, that would make money so expensive.

Public views this strong could not be ignored by Congress. With such discontent, any actions taken by Congress to institutionalize monetarist policies by placing limits on the discretionary controls the Federal Reserve used to manage the supply of money would have amounted to political suicide. Comments in Congressional Committees right after Volcker enacted his money tightening policy were all in the vein of William Proxmire's statement, "I support the actions taken by the Board. High interest rates are painful; nobody really likes them" (as quoted in Shull 2005: 143). These statements of support were quickly replaced by vocal condemnation. This unease, extended to the Reagan Administration, culminated in an attempt to pass a bill sponsored by thirty Democratic Senators ordering the Federal Reserve to bring the interest rate down to four percent. With such a hostile climate both in Congress and in the public at large, any attempt at institutionalization was impossible.

Thus ended the movement for a radical restructuring of the Federal Reserve on a level to the 1935 Banking Act. Like during the Great Depression, the orthodoxy was discarded and The

Fed chairman took his experiences and used his institutional power to chart a new course of action that would reorient The Fed to face the new challenge of the moment. But unlike during the Great Depression, this reorientation halted economic growth, and because of that it could not find the support in Congress that would lead to long term change.

Conclusion

I have presented in this paper three crises that each ended at different stages of my three-step model. The 1997 Asian Financial Crisis never had any change of ideology within the Federal Reserve because Alan Greenspan's forward thinking about how digital technology was changing the world of international finance was able to interpret the crisis as an event that had to be withstood and not as a fundamental threat to the economy. Paul Volcker's austere leadership of the Federal Reserve radically changed the focus of The Fed from maintaining full employment to maintaining low inflation. And in the granddaddy of all recessions, Marriner Eccles with political capital from FDR created the modern Federal Reserve precisely because there was not prior institution that could control monetary policy the way he believed the US economy needed to be controlled.

As this paper has the power of the chairman is so much larger than changing the price of money. As the first responders to any economic crisis, their actions often become the status quo, and if their thinking is amenable to Congress, their actions create legislation. This is entirely because of their great institutional power atop the Federal Reserve. Unlike a congressmen or a president, they do not have a constituency besides the economy itself, and their term as chairman can often stretch more than a decade. This paper's epigraph quotes Keynes who says that while most people do not take note of them, the thoughts of economists and political philosophers rule the world. We can now add to that list of influential thinkers, Federal Reserve chairmen. When

they are noticed, their words are analyzed to see how they will change the interest rate.

These findings lend strong support to those who argue that it is the structure of institutions that determines how they evolve and grow, but it is a strong rebuke to those economic determinists that argue that the an institution merely reacts to a crisis. The findings do not directly rebuke the ideational theorists. Instead this paper has shown where ideas are not useful. Institutions like the Federal Reserve, which has few decision-makers, and a rigid, unchanging structure, do not provide the ambiguity and complexity of a large institution that can be greatly influenced by ideas. There are no one-size-fits-all theories for institutional growth, each institution's unique character and structure must be considered.

In writing a paper about economic crises, I would be remiss if I did not conclude attempting to apply the lessons from these three past crises to the current recession that began in December 2007, was noticed in the middle of 2008, and has only worsened since then. Figure 4 compares the current recession in the context of three other recessions. The figure clearly shows that the first twelve months of this recession looked similar to other historic recessions, but at month twelve stocks dropped with a precipitousness reminiscent of the 1929 Crash. As this paper has shown, the Crash itself did not produce any immediate changes to the Federal Reserve, but it was the mishandling and continual depression that causes men like Marriner Eccles to conclude that the Federal Reserve in its pre-1935 form was not up to the challenge of managing money. Unlike the Great Depression era Fed, Chairman Ben Bernanke has not had any conflicting arguments in favor of keeping interest rates high. There is no worry about gold reserves and international exchange rates. The effective Federal Funds rate for February 2009 hovers around .2% and the target rate is 0% where a year ago it was around 3%. Bernanke has moved the rate so low that he and The Fed cannot move it lower. The Federal Reserve is at this point powerless

in their traditional role.

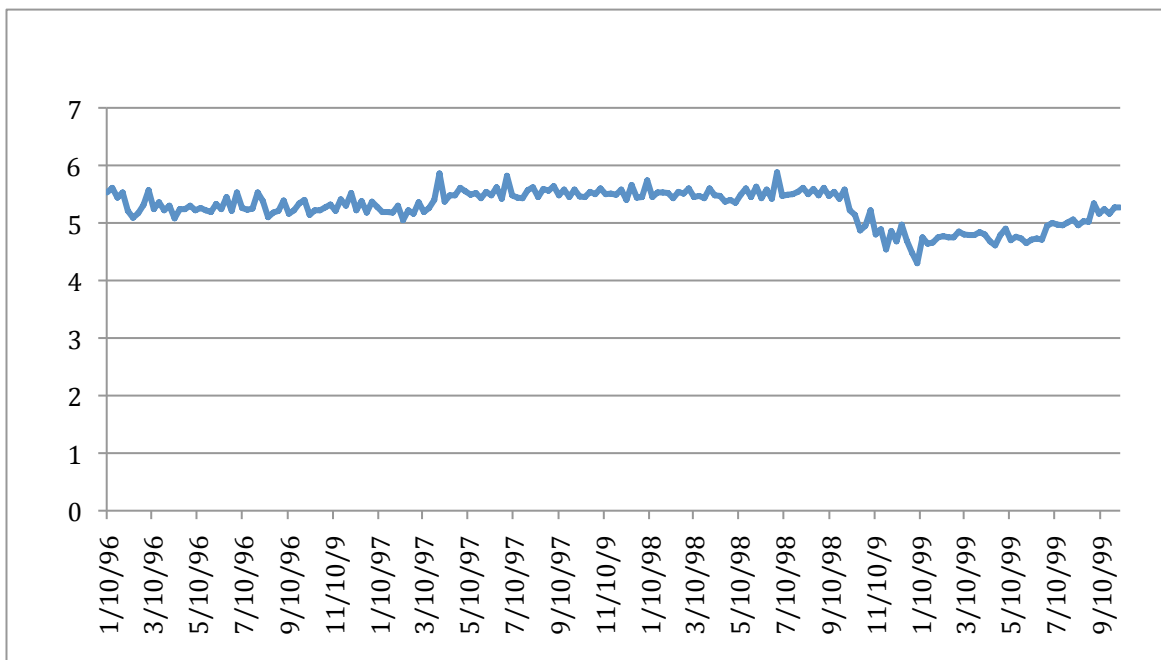
Will there be a new Banking Act, one that will expand the power of The Fed to meet this challenge like the Banking Act of 1935 empowered the Federal Reserve to meet the Great Depression? The Emergency Economic Stabilization Act of 2008 gave The Fed the option of offering a high interest rate to any banks wishing to deposit money in the reserve. But the actions of the Federal Reserve have been much more active than protecting banks' money. They have been organizing buyouts of major banks like Bear Sterns and offered emergency loans to other banks like American Insurance Group. This activity, while not at all illegal, is not part of the Fed's mandate from Congress. If the current crisis continues and worsens, these *ad hoc* measures will have to be replaced by a new bill outlining where The Fed should operate. We are at the moment when the Federal Reserve leadership has started operating differently, but whether Congress recoils from making drastic changes or aggressively endorses the Federal Reserve's new direction remains to be seen. It seems that the future heralds a more active Federal Reserve, one that not just regulates and guarantees the financial system, but coordinates and manages the banking system.

If such a change like this occurs, it will be the first major restructuring of The Fed since 1935, and it will provide greater evidence that structural change originates first from within the Fed, either from a powerful chairman like in the past, or perhaps from a numerous committee of employees working closely with other bureaucracies. But the end result will be the same: Change, first practiced by the Fed, then compromised and approved by Congress.

Figure 1. Where the Cases Lie: The Variable Space

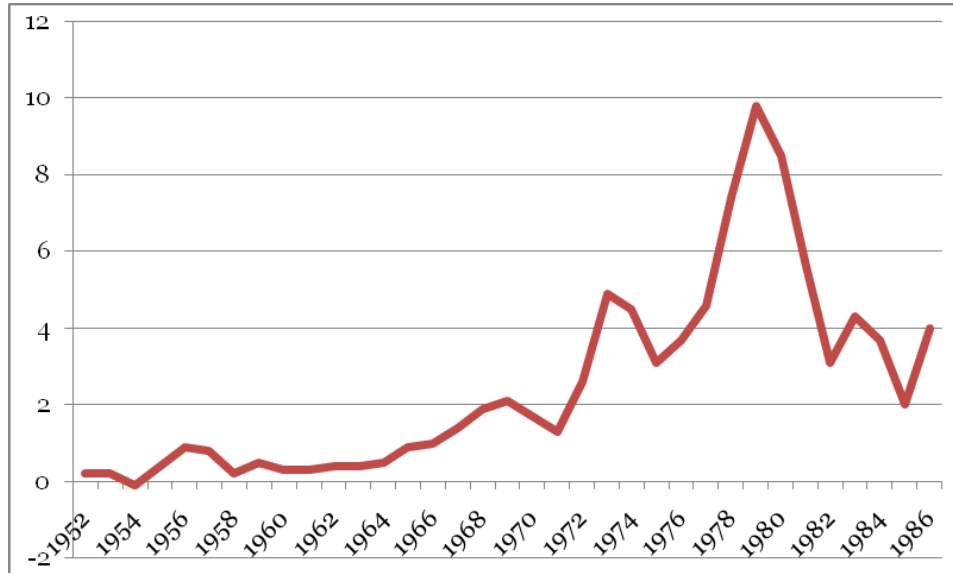
	No Loss of Confidence in Economic Orthodoxy	Loss of Confidence in Economic Orthodoxy
Long-term Change		The Great Depression
Short-term Change		The Stagflation Crisis
No Change	1997 Asian Financial Crisis	

Figure 2. Federal Funds Effective Rate 1996-1999 (%)



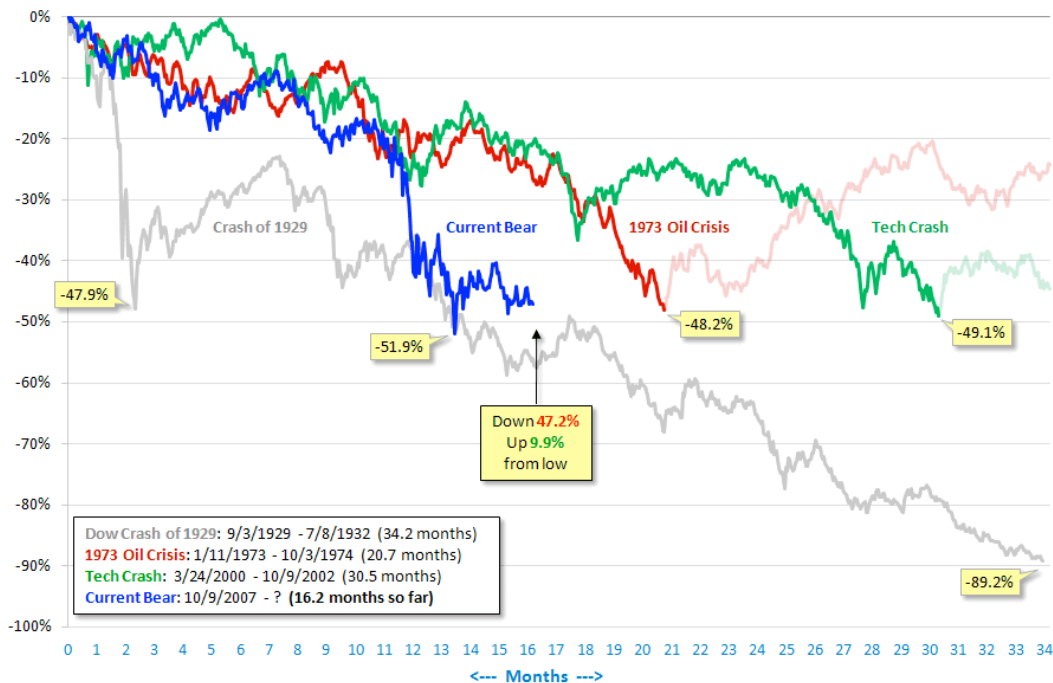
Source: St. Louis Federal Reserve Bank. 2009. Effective Federal Funds Rate <http://research.stlouisfed.org/fred2/data/DFF.txt>. Last accessed February 2009.

Figure 3. Change from year to year in the yearly Consumer Price Index average



Source: Bureau of Labor Statistics. 2008. Table Containing History of CPI-U U.S. All Items Indexes and Annual Percent Changes From 1913 to Present. <http://www.bls.gov/CPI/>. Last accessed November 2008.

Figure 4. Four Bear Markets' Dow Jones Losses as a Percent of Peak Worth



Source: <http://dshort.com/> Last accessed February 2009.

Endnotes:

1. Ideational Theory has its origins in the failures of economic determinism and its subsequent theories. Mark Blyth, one of the leading ideational theorists, notes that ideas have historically been used as “‘fillers’ or auxiliary hypotheses to solve preexisting problems” (Blyth 2002: 17). Douglas C. North, for example, uses ideas to explain how collective action can occur within rational choice theory: “Both research in experimental economics and a number of studies by psychologist point out that issues of free-riding, fairness, and justice enter the utility function and do not necessarily fit neatly with the maximizing postulates in the narrow sense” of profit maximization. “Altruism can be part of the model” (North 1990: 27). Ideational theory attempts to make ideas not just part of the model, but an integral part.
2. The Chairman controls the main monetary policies of The Fed through chairmanship of the two committees that are responsible for all the Fed’s policies. The Chairman heads the Board of Governors itself which sets the minimum reserve of liquidity that banks must maintain and other general regulations to guarantee the US bank system runs efficiently and safely. The Chairman is also the defacto chair of the Federal Open Market Committee. The Federal Open Market Committee, composed of 12 members, seven of which are the members of the Board of Governors and one of which is the President of the New York Fed, sets the goals for open market operations carried out by the New York Fed. See The Federal Reserve Board 2003 if interested in greater detail about the structure of the Federal Reserve Board.
3. Before 1936, it is practically an anachronism to talk about The Fed as a single body. Real power rested with the local branches, especially New York City’s. The Federal Reserve Board in Washington served as a weak coordinator of its many stronger constituents. Milada notes, “The Board’s function was technical and service oriented; it was not designed to control the supply of money” (Milada 1994: 108). Even if The Fed had the desire to actively regulate the money supply, it could not have done so according to economic principles because not only was the Board weak, but it was also a political body. The Secretary of the Treasury and the Comptroller of the Currency both were *ex officio* members of the Board. With such political influence, The Fed could not have the independence required to manage the supply of money according to economic principles instead of political expediency.
4. The Monetary Control Act of 1980 was a bill that simplified and deregulated the banking industry. Paul Volcker strongly supported its passage. A sprawling bill that affected all parts of the industry, most interestingly, it allowed the Federal Reserve to purchase foreign debt as part of the Federal Reserve financial portfolio. While much of the foreign investment went to strong currencies like German marks, Swiss francs, and Japanese yen, the Federal Reserve did invest in riskier countries in order to strengthen their currencies. Making such investments does not make large economic sense for the Fed, and Timberlake notes this speculating that it was Volcker’s intimate background with Chase Manhattan Bank that might have caused a conflict of interests. See Timberlake 1993: 362 for an entire chapter devoted to the history and intricacies of the Act.
5. With such a well-defined set of policy prescriptions that monetarists had, many questioned whether the policies the Federal Reserve implemented were ever monetarist (Shull 2005: 144 and Timberlake 1993: 360). Whether or not this was the case, it is clear that the majority of economists and the public identified the Fed’s actions as at least very similar to monetarist prescriptions and for this paper, this self-identification is enough.

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