## Responses to additional questions from the Financial Crisis Inquiry Commission

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I have endeavored to keep these answers reasonably short and focused. The answers are backed up by empirical research which is summarized at greater length in my book Getting Off Track, which in turn refers to a number of technical empirical studies.

1. Describe the main causes of the financial crisis. If there are multiple causes, try to quantify the relative importance of each cause. Specifically: a. What was the "spark" that set off the fire? Or, what was the precipitating factor?

Like most financial crises, this one was originally due to monetary excesses which led to a huge boom—especially in housing—followed by a bust with defaults, toxic assets and failed financial institutions. In the case of this crisis the empirical evidence shows clearly that the most important precipitating factor was monetary policy. Interest rates were held too low for too long, remaining at one percent for several years into the expansion that began in 2001, and then rising very gradually. Rates stayed very low as housing price inflation went from single to double digits. This policy increased the demand for housing, increased housing price inflation, and encouraged a search for yields and excessive risk taking. Exacerbating the risk taking was a perception that, in the event of a crisis, the creditors of many large financial institutions would be rescued by the government, along with a lack of effective regulation of the already highly regulated banks. Evidence shows that monetary policy deviated significantly from good policy followed in the 1980s and 1990s—a period of stability called the Great Moderation. Essentially there was a Great Deviation of government policy which ended the Great Moderation of the 1980s and 1990s and led to the Great Recession of 2007- 2009.

b. What was the propagation mechanism? Or, why did the crisis spread throughout the entire world economy?

The crisis first flared up in the summer of 2007 when interest rate spreads in the interbank lending markets rose dramatically. The crisis was prolonged, or propagated well beyond this time, because of a misdiagnosis by policy makers who then took actions which were either ineffective or made things worse. As evidenced by the initial response and public commentary, the problem was diagnosed as a general lack of liquidity rather than credit risk on the banks' balance sheets. Rather than address the problems in the banking system caused by the defaults and the increased uncertainty about creditworthiness of the toxic assets, government officials took other actions—including the creation of new borrowing facilities for financial institutions, an extra sharp cut in interest rates (which depreciated the dollar and increased oil prices) and a plan to send checks to people to jump start consumption and the economy. But these actions did not have a noticeable impact. Credit spreads in the interbank market remained high. Following the rescue of the creditors of Bear Stearns in 2008, no plan was laid out for how the government would deal with the credit problems of other financial institutions. Hence the crisis continued and eventually turned into the Panic in September and October of 2008.

Regarding the impact on the world economy, there are three main factors. First, there were monetary policy excesses in some other countries, perhaps related to the monetary policy decisions in the United States. This led to housing booms and busts in a number of other countries. Second, the credit problems due to the toxic assets emanating from the housing bust in the United States were on banks' balance sheets in Europe as well as the United States. Third, during the Panic in September and October 2008 fears of another great depression set off by the policy statements in the Unites States in late September affected investment, exports, and imports around the world. The sudden shift in expectations could be seen in nearly all markets simultaneously.

c. Which regulatory "backstops" failed to prevent the spread of the crisis? How and why did they fail?

The most important actions would have been to prevent the bubble in the housing market through appropriate monetary policy. Why were these actions not taken? I believe policy makers decided to take the risk of deviating from what worked well in the 1980s and 1990s in order to avoid the risk of a deflation as had occurred in Japan in the 1990s. Another possible reason is that policy makers saw certain ambiguities in the usual indicators of inflation or capacity utilization.

d. Please address specifically the role that the following may have played, if any, in causing and/or exacerbating the financial crisis:

## i. OTC derivatives

I do not think these were a major factor in causing the crisis. They may have led to government interventions, or the expectations of government interventions, to rescue creditors and counterparties, which as mentioned above was part of the cause of the crisis. They also created severe problems in certain institutions such as AIG Financial Products.

ii. Government policies to promote home ownership, including Fannie and Freddie

By expanding their activities into more risky parts of housing finance, Fannie and Freddie certainly encouraged risk taking. Had they been better regulated or had they not been encouraged to take on such risks, they might not have done so.

## iii. Credit rating agencies

The rating agencies gave inappropriately high ratings, not taking account of the complexities of many collateralized mortgage obligations or the impact of high housing price inflation on mortgage delinquencies or foreclosures. Part of the problem was due to their mistaken forecasts of a continuing housing boom or at least no housing bust.

## iv. Inadequate capital standards

Higher capital ratios would have helped in some cases, but the riskiness of the toxic assets and the lack of diversification on the balance sheets of many financial institutions were the main credit problem.

2. There are some who argue that financial crises share common characteristics. What stands out as the unique features of this crisis both in our nation's history and around the world?

I see many common characteristics including the financial excesses emphasized in the answer to the first question. The unique aspect of this crisis was the sharp shift in the role of government from the predictable, relatively systematic, non-interventionist policies during the quarter century starting in the late 1970s and early 1980s to a much more discretionary and interventionist approach. Evidence for this includes the deviation in monetary policy and the proclivity to use bailouts, which I mentioned above in answer to the first question, as well as the use of enormous fiscal and monetary responses.

3. What were the significant underlying changes in regulatory and economic policy that laid the groundwork for the crisis? When discussing regulatory changes, try to be as specific as you can.

The most significant change in economic policy that laid the groundwork of this crisis was the deviation from monetary policy of the 1980s and 1990s to one where interest rates were held too low for too long. This was coupled with an ineffective implementation of regulatory policy which did not address the risks at large banks and some other financial institutions. More specifics are given in my answers to question 1.

4. Do you believe that executive compensation incentive structures contributed to the crisis by rewarding risk-taking on the part of executives that imperiled the health of the institutions by which they were employed? Could the crisis have been averted or ameliorated if there were a routine procedure in place to claw back from executives' incentive payments that were based on metrics that, in light of longer term analysis, were never achieved? Put differently, could the crisis have been avoided or ameliorated by compensation practices that rewarded executives by metrics correlated with the health of the institution or returns to investors in the enterprise?

The crisis would not have been avoided or averted with different compensation policies, but it may have ameliorated. Compensation policies tied to incentives to increase returns and value for shareholders should be the aim of any good corporate governance structure. Clearly governance structures and compensation policies which place too few incentives on monitoring risk are flawed.

5. The interdependencies of the global economy were made clear during the 2008 collapse of the financial markets. However, several countries, like Canada and Australia, seem to either avoid the depth of the decline experienced in the US or recovered much faster. What attributes about the financial markets in those countries would you consider appropriate considerations for US legislators or regulators at this time?

It is difficult to make cross country comparisons like this because there are so many institutional and policy differences in different countries. However, in general I believe that economic policy in Canada and Australia did not deviate from the sound principles in the way I described for U.S. policy. Similarly, the existing regulations for banks were implemented more effectively. I believe these are the two big lessons, but more research is needed to establish this.

6. Corporate risk management standards are necessary to ensure confidence in the business processes of our financial institutions. Yet, scale, complexity and limited knowledge about the products or services being governed can create "blind spots" in the governance process. What considerations should the large, global financial institutions make as they rethink their approach to corporate governance?

It is important to note that the "blind spot" seems more serious in financial institutions than in nonfinancial institutions. Complexity and limited information about products and services are at least as great a problem in high tech firms producing manufactured products or services. What is the reason for this? I would suggest that it is the government's involvement or implicit or even explicit support in the case of financial institutions. If financial institutions and their creditors know there is a possibility that they will not be rescued, then they will take the necessary steps to change their corporate governance structure.

7. Your research stresses the role of monetary policy in the financial crisis. Do you believe that had the Fed followed your preferred approach there would have been no crisis? If so, why? If not, what other factors are the most important?

In my view, if the Fed had followed, during the 2003-2005 period, the type of monetary policy that it had followed in much of the 1980s and 1990s we would have been able to avoid this crisis and recession. In my view much of the housing boom and bust and their ramifications would have been prevented. But the reasons are deeper and more general. Policies such as those that were followed in the 1980s and 1990s have been shown to be effective in numerous studies. Deviating from such policies causes instability, including more frequent and serious recessions. We have seen this in evidence across different countries and in the United States. For example, we had a great deal of instability in the United States during the late 1960s and 1970s when such policies were not followed. The recent crisis only adds to that evidence. I am not saying that we could completely avoid recessions or booms or bubbles with such a policy, but rather that they would be relatively mild as during the Great Moderation when we had long expansions and short mild recessions.

In addition, I think that the crisis was much more severe because of the policy actions and interventions taken since it flared up in August 2007. Some of these actions were related to monetary policy, but they go well beyond the traditional monetary policy actions referred to in the question and they include decisions made in other parts of government. They include the lack of clarity regarding government bailout policy and the misdiagnosis of the problem as pure liquidity rather than solvency in the financial system.