WORKING GROUP ON GLOBAL MARKETS
Hoover Institution, Stanford University

THE FINANCIAL CRISIS:
ROOT CAUSES, POLICY EVALUATION, NEXT STEPS

SUMMARY OF DISCUSSION & PRELIMINARY CONCLUSIONS FROM A POLICY WORKSHOP HOSTED BY THE HOOVER INSTITUTION'S WORKING GROUP ON GLOBAL MARKETS – DECEMBER 3, 2008

By John D. Ciorciari

Over the past several months, the financial turmoil that begun in approximately August 2007 has spread more clearly into the real economy, adding to the importance of understanding its origins and evaluating policy options. To address these critical issues, the Hoover Institution's Working Group on Global Markets convened a half-day workshop involving experts in finance, economics, law, and public policy. Participants set out to address the causes of the crisis and the reasons why it worsened over time. They also sought to evaluate the effectiveness of policy responses and interventions to date and to determine how policies can be improved going forward. Finally, they evaluated the interplay between national and international factors, both as possible causes for the crisis and as elements in an appropriate policy response.

INTRODUCTION & BACKGROUND

The workshop began with a pair of presentations addressing the nature of the current crisis and outlining some of the principal challenges facing policymakers and market participants.

A View from the Official Sector

John Lipsky of the IMF began by providing an overview of the macroeconomic outlook. He reviewed the IMF's most recent projections, issued last month as an update to the IMF's October World Economic Outlook (WEO) report. Lipsky explained that the outlook has become considerably less favorable and that the IMF is quite concerned about the latest trends (see Fig. 1).

Fig. 1 – The Most Recent IMF Growth Forecasts
(percent change, year over year)

	2006	2007	2008 projections		2009 projections	
			Oct WEO	*Updated*	*Oct WEO*	*Updated*
World output	5.1	5.0	3.9	3.7	3.0	2.2
Advanced economies	3.0	2.6	1.5	1.4	0.5	-0.3
Emerging and developing economies	7.9	8.0	6.9	6.6	6.1	5.1

Sources: IMF WEO, Oct. 2008 and WEO Update, Nov. 6, 2008

IMF staff now anticipates an overall contraction across advanced economies in 2009, which would be the first such contraction since the end of the Second World War. Lipsky also explained that despite falling oil prices, emerging markets (EMs) are expected to grow less robustly than the October WEO forecasts suggested. Domestic demand in EMs has not compensated as well for weak export demand as originally envisioned, and EM corporate continue to face limits on access to capital despite improvements in local bond markets over the past decade.

Lipsky then proceeded to discuss some of the causes of the crisis. He noted that the development of a truly global economy over the past 15 years has resulted in sharp productivity gains but has also presented new risks associated with large movements of capital across borders. He highlighted global imbalances as one systemic cause of the crisis and argued that despite efforts such as the IMF's Multilateral Consultation on Global Imbalances, key governments failed to pursue policies quickly and aggressively enough to rectify the problem.

Finally, Lipsky outlined keys to the policy response going forward. First, he stressed the need for credible and consistent policies to generate market confidence and to promote a healthy flow of capital across borders. Second, he emphasized the importance of addressing three key "gaps" that have been exposed by the crisis: gaps in information, legal and institutional structures, and markets. Third, he argued that an effective response must be both swift and well coordinated at both national and international levels.

A View from the Private Sector

John Powers of the Stanford Management Company followed, offering an investor perspective on the financial turmoil and its spread into the real economy. To illustrate how the turmoil has affected investors, Powers discussed the financial standing and behavior of university endowment funds during the recent crisis and drew comparisons to the recession in 2001-02. He explained that in 2001-02, endowments suffered significant losses, particularly due to their large exposures to venture capital and private equity. Losses in their public equity holdings were not as severe, leaving endowments comparatively "poorer, but more liquid." By contrast, public equity prices have fallen more sharply since mid-2007, while private equity has been somewhat slower to re-price. A rapid sell-off of public equity means that endowments now have a higher share of private equity, making them relatively "poorer, and less liquid." He also noted that counterparty risk concerns and low transparency had reduced the liquidity of many assets originally believed to be liquid.

Powers explained that the shift toward less liquid portfolios has made it more difficult for endowment managers to provide funds for distressed assets and serve as "capital providers of last resort." He argued that the constraints facing endowments have also affected many other classes of investors. The resulting crunch in available credit, he argued, helps explain why the financial turmoil eventually spread into the real economy, as corporate were unable to raise funds to invest in businesses. Participants examined that hypothesis and considered the extent to which declining capital expenditures accounts for the spread of the crisis into the real economy. Declining real estate prices and weaker consumer spending on durables were cited as other key factors that tipped the economy into recession.

KEY ELEMENTS OF THE CRISIS RESPONSE

The second segment of the workshop featured brief presentations on some critical areas of the policy response to the crisis.

Reforming the Market for Credit Default Swaps

Darrell Duffie of the Stanford Graduate School of Business began by discussing credit default swap (CDS) markets, which have been the focus of considerable attention during the crisis. He noted that some basic aspects of CDS markets are poorly understood. First, CDS are not complex instruments; they are simply a means of purchasing insurance. Second, the size of CDS markets is often exaggerated. Duffie presented data showing that most large CDS dealers intermediate between buyers and sellers and have nearly offsetting positions. Many large dealers have net positions equal to roughly 10% of their gross outstanding notional positions (see Fig.2).

Fig. 2
Gross Notional CDS Positions after Netting

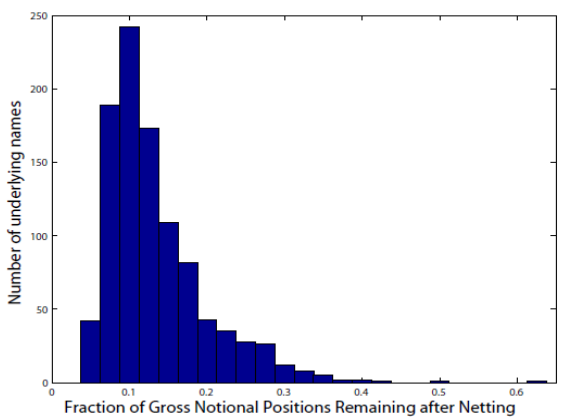
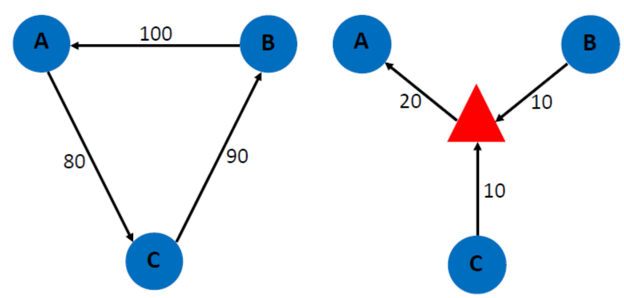


Fig. 3
Benefits of a Central CDS Clearing Counterparty



From Darrell Duffie, Dec. 2008

Duffie then turned to policy issues. He argued that establishing a well-capitalized central "clearing counterparty" for credit derivatives is overdue. By effectively netting dealers' positions, a clearing mechanism would help eliminate large, unnecessary exposures among dealers in the event of default (see Fig. 3). He also contended that similar clearing mechanisms should be established for other over-the-counter derivatives, such as interest rate swaps.

Duffie noted that improved transparency is needed to help CDS markets operate more efficiently, particularly so regulators have better information on large exposures among key market players and potential conflicts of interest. However, he cautioned that disclosure requirements should be tailored to provide appropriate incentives to market participants. He also argued that while some simple products should be listed on exchanges to provide buyers with better price information, requiring that all CDS products be traded on exchanges could have undesired effects.

Expanding the Role of the Federal Reserve

A second critical issue in dealing with the financial crisis has been to provide liquidity to credit markets. Over the past 15 months, the Fed has vastly expanded its range of activities in an effort to do so, raising the aggregate size of its balance sheet from roughly $900 billion to $2.1 trillion. John

Williams of the Federal Reserve Bank of San Francisco provided an update on the Fed's new facilities. He explained that the Fed's facilities have been clustered into four basic categories. First, the Fed has introduced facilities aimed at providing liquidity in short-term lending markets:

- The *Term Auction Facility* (TAF) is an auction-based lending facility established in December 2007 aimed at improving conditions in the term interbank lending market. It is similar to discount window lending, but the rate on TAF loans is set in an auction.
- The *Primary Dealer Credit Facility* (PDCF) opens the discount window to primary dealers, providing overnight loans in exchange for approved collateral.
- The *Term Securities Lending Facility* (TSLF) enables primary dealers to borrow Treasury securities for one-month terms in exchange for other approved collateral.
- The Fed has also introduced *currency swaps* with central banks in Europe, Asia, and South America.

A second type of new Fed facilities has been geared toward improving the functioning of markets for money market mutual funds and commercial paper. For example, the Fed established a new *Commercial Paper Funding Facility* (CPFF) under which a special-purpose vehicle will buy high-quality commercial paper directly from issuers. A third form of Fed intervention has been to provide credit in cases of financial institutions in difficulty, as in the case of AIG.

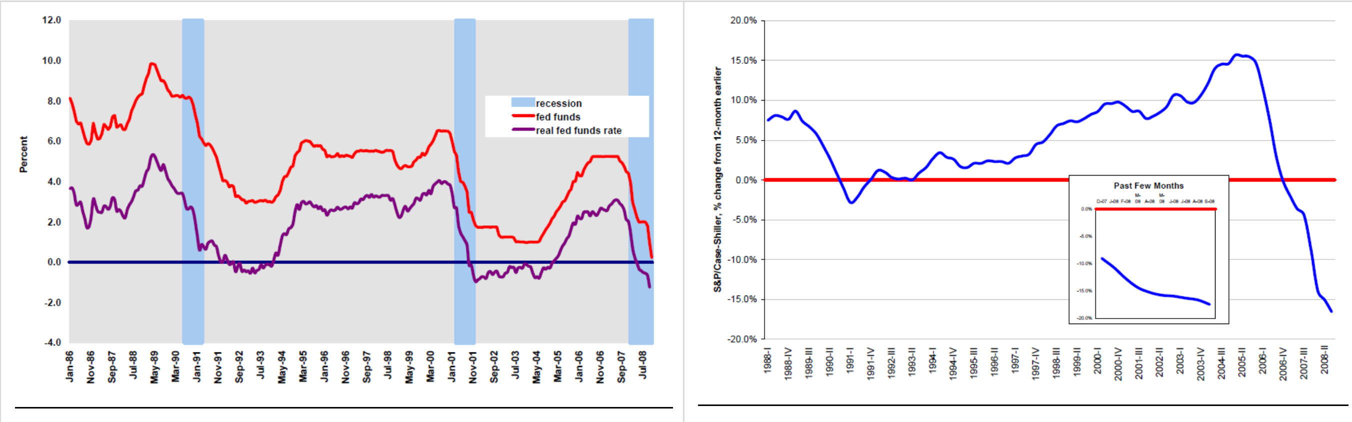
Finally, the Fed has embarked on new efforts to restore credit availability to households and small businesses. The Fed recently established the *Term Asset-Backed Securities Loan Facility* (TALF), which is designed to encourage new issuance of asset-backed securities. The Fed also announced that it will begin purchasing mortgage-backed securities and debt from government-sponsored enterprises, including Fannie and Freddie.

In discussion, George Shultz emphasized the importance of limiting the Fed's overall exposure to guard against a loss of taxpayer money. Williams also discussed the Fed's efforts to avoid exposing itself to undue risk. Participants then touched upon the importance of disclosure of the Fed's holdings. Finally, John Taylor argued that further research is needed to determine whether the Fed's new facilities are necessary to repair credit markets.

Implementing the TARP and Other Rescue Efforts

The Fed's new facilities have only been part of the overall U.S. government response to the crisis. Michael Boskin of the Hoover Institution and Stanford University followed Williams by examining the TARP and other relief efforts taken to date. He began by reviewing some recent macroeconomic data and arguing that the current recession is certainly the worst since the early 1980s. He touched briefly on some of the causes of the crisis, including low interest rates during a period of strong growth in 2003-05 (see Fig. 4), excessive promotion of home ownership, and eventually a sharp housing correction (see Fig. 5) and rush by financial firms to de-leverage.

Fig. 4 Monthly Interest Rates for Federal Funds, 1986-2008	Fig. 5 Percent Change in Home Price Index, 1988-2008



From Michael Boskin, Dec. 2008

Boskin then turned to an analysis of the TARP and other aspects of rescue efforts to date. He argued that the perceived inconsistency of U.S. government responses to troubled firms, such as Bear Stearns and Lehman Brothers, may have contributed to liquidity and solvency problems in the banking sector. He also contended that the treatment of shareholders in firms bailed out by the government likely discouraged much-needed private capital from flowing into other firms. Boskin asserted that using the TARP to purchase distressed assets was sensible, but only after banks were provided with capital infusions, which has now begun to occur.

In addition, Boskin offered thoughts on U.S. rescue efforts under the new Obama administration. He anticipated a large stimulus package, perhaps exceeding $500 billion and including a sizable auto industry bailout. He also anticipated strong Congressional pressure to use the TARP to aid homeowners but argued that it will be difficult to provide effective and targeted relief to the roughly 3 million mortgagees (out of a total of 55 million) now deemed to be in dire straits. Boskin recommended several concrete policy steps to be taken. He advocated making tax cuts permanent to stimulate the economy. He also recommended limiting infrastructure spending to projects that are both ready for implementation and proven by rigorous social cost-benefit analysis to be of net national, not just local, benefit. Further, he advocated phasing in new programs that will be economically costly, targeting lower mortgage rates, and seeking ways to efficiently acquire and resell toxic assets. Finally, Boskin emphasized that a key challenge will be to establish a clear and credible exit strategy from the exception government rescue plans now in place.

Strengthening the International Financial System

Andrew Crockett of J.P. Morgan International gave the final presentation, addressing the important issue of how to reform the institutions of international finance to manage the crisis and improve the resilience of global markets going forward. He begun by describing some of the key elements of the existing order, including the G7 and two bodies created in response to the Asian Financial Crisis: the G20 and the Financial Stability Forum (FSF). The G20 was established as a way to better reflect large emerging market economies that were not G7 members and had limited roles on the IMF's 24-member Executive Board. The FSF was a different type of forum created to bring regulators, central bankers, and finance ministry officials together to address issues of concern to the global financial system.

Numerous analysts have suggested that the current financial crisis requires updating the system of international financial governance, much as the G20 and FSF had helped to do in the late 1990s. Crockett considered the options for strengthening the international financial system, taking the recent recommendations by G20 leaders as his point of departure. Among other things, the communiqué arising from the first-ever G20 leaders' meeting in Washington urged an expansion of G7 membership. Crockett advised caution with respect to broadening existing institutions. He noted that while expanding membership is often popular and comparatively easy, preserving intimacy and openness of dialogue can be difficult.

Crockett argued that reforms to the international financial governance system should focus on improving the ability of the IMF, FSF, and other relevant entities to perform three core functions: strengthening systemic stability; monitoring vulnerabilities and providing early warnings; and coordinating crisis response. First, with respect to systemic stability, Crockett contended that regulations traditionally have focused on the management of firm-level risks and failed to address systemic-level risks. For example, regulations aimed at firm-level stability have sometimes had unwanted pro-cyclical effects, contributing to excessive leverage and other systemic problems. Crockett advocated shifting from a focus on "micro-prudential" to "macro-prudential" oversight.

Second, Crockett argued that international financial institutions like the IMF and FSF need to improve their capacity to monitor vulnerabilities and provide effective early warnings. He argued that identifying vulnerabilities is typically easier than getting governments to deal with them decisively. He also noted that when international bodies identify vulnerabilities and wish to comment publicly on the matter, they often face stiff resistance from affected member countries. Finally, Crockett asserted that national governments and international institutions need to improve their coordination in responding to crises. As one example of the perils of poor coordination, he cited recent Irish guarantees to bank deposits, which precipitated a sudden and damaging outflow of funds from the United Kingdom. He argued that the FSF is well-positioned to discuss crisis responses given its composition but stressed that real-time discussion is essential due to the speed of events in global financial markets.

Reducing Procyclical Regulations

In discussion, participants addressed the need to reduce the procyclical effects of bank capital requirements and certain other regulations. Boskin argued that the procyclicality of Basel II would be hard to "short-circuit," partly due to the difficulty of training examiners to analyze banks' complex balance sheets. Crockett asserted that the present crisis usefully draws attention to the importance of procyclicality. He stressed that banks need to be given incentives to build protection during upswings and recommended using indicators on systemic trends as part of the calculus for capital requirements. Ken Scott emphasized the political difficulty of imposing tough bank capital requirements and argued that reforms should aim to identify automatic mechanisms. As one example, he suggested that regulators could require capital requirements to adjust automatically in line with GDP growth.

Participants also discussed mark-to-market accounting. Both Boskin and Crockett argued that while mark-to-market accounting has had a procyclical impact, no clearly superior alternative exists, and changing the rules amid the current turmoil would entail significant risk. Scott added that reducing the procyclical effects of mark-to-market accounting would likely create other significant problems in the market, obscuring the decline in the value of assets of firms' balance sheets.

OPEN DISCUSSION

Following the presentations, participants engaged in an open discussion on the financial crisis and possible policy responses. Among other things, they identified the need for a clear, well-tailored financial rescue plan; an effective stimulus package; and appropriately designed relief to real estate markets.

Tailoring the Financial Rescue Plan

A number of participants commented upon the need for a clearer, more consistent, and more focused financial rescue plan. Shultz critiqued the ad hoc nature of the U.S. government's policy responses to date and questioned the need for such expansive intervention by the Fed and other government actors. Other participants cited the lack of clear criteria for government intervention as contributors to market uncertainty. A consistent theme was the need to move beyond immediate responses and establish a more coherent set of principles to guide reforms going forward. As one example, Robert Leeson recommended taking a more fundamental look at the role of the banking system in the economy to ensure that current interventions promote sound medium-term policy goals.

Providing Effective Stimulus

Participants generally agreed on the likelihood of a large stimulus package in the months ahead. Robert Hall outlined a few different ways that the government could provide stimulus. It could send checks directly to consumers (as it did in May-June 2008), increase infrastructure spending, or announce that the Bush Administration's tax cuts will become permanent (as John Taylor has advocated). Hall introduced an alternative possibility, recommending that the Obama Administration eliminate payroll taxes for a specified period to stimulate employment.

Reviving Real Estate Markets

A number of participants also identified a revival of housing markets as a key to any effective stimulus package. Williams expressed concern that the Case-Schiller Index portends another bad year in real estate for 2009 and that mortgage delinquency rates have been high even for mortgages established in 2007-08, after the bubble had begun to burst. Hall advocated issuing formal government guarantees of Fannie and Freddie, arguing that an implicit guarantee already exists but that formalizing the government's backing would help to drive down mortgage prices. Scott proposed a scheme whereby mortgage owners would provide troubled housing occupants with deeds in lieu of foreclosure. Occupants would be able to continue living in their homes as renters for a specific period with an option to purchase at the end of the lease term. Scott argued that mortgage owners would take write-downs but avoid foreclosure and eviction costs. Occupants would be able to continue living in their homes.

Lipsky noted that the housing problem is by no means confined to the United States. In key European markets—such as Spain and the United Kingdom—real estate prices were even more inflated before the crisis began to unfold. Moreover, real estate is a larger share of household balance sheets in many European countries than in America. He explained that the IMF has advocated significant fiscal stimulus packages in Europe as the fall in housing prices pinches household consumption.

Other Issues

Participants also raised a number of other policy issues. These included the role for trade-surplus countries to enact stimulus plans that would spur recovery and narrow trade imbalances; the possibility of reforming export credit agencies to provide much-needed corporate finance; and the importance of improving the incentive structure for investors. Taken together, these and other recommendations underscored the notion that an effective resolution of financial turmoil and the recession will require coordinated application of a range of fiscal, monetary, and regulatory tools by both national and international actors.

PRELIMINARY CONCLUSIONS

While participants expressed a range of views on the causes of the crisis and the ways to address it, the discussion yielded several preliminary conclusions. First, the current recession appears to be deeper and more severe than some early forecasts suggested. The scale of the crisis requires a major, well coordinated policy response involving both national and international actors. Second, illiquidity in the financial markets remains a serious problem, largely due to concerns about counterparty risk and poor mechanisms for pricing many types of assets. The plumbing of financial markets—such as CDS markets—needs to be refurbished, and transparency needs to be improved. Third, real estate markets continue to suffer in many large economies, necessitating measures to resuscitate mortgage markets and deal with distressed lenders and homeowners. Further, challenges at the international level—including imbalances and insufficient mechanisms for monitoring and managing systemic risk—remain urgent concerns.

The workshop discussion suggested the need for rigorous research to answer a number of key policy-relevant questions, such as the following:

- What were the most important factors contributing to the spillover of financial turmoil into the real economy?
- What types of fiscal or monetary policy stimuli are apt to be most effective in reviving consumer spending and real estate markets?
- To what extent have the Fed's new facilities been effective in relieving the credit crunch? To what degree have those facilities been necessary?
- How can the U.S. government establish a credible and effective exit strategy after engaging in unprecedented intervention in financial markets?
- How can banks' capital requirements be calculated in a manner to better ensure financial system stability?
- How can international bodies overcome the political obstacles to effectively monitoring vulnerabilities and providing early warnings?
- What types of issues are best addressed at the international level, and which are more appropriately addressed by domestic authorities?

These and other questions arising from the workshop will help define the 2009 research agenda of the Hoover Institution's Global Markets Working Group.