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The US Financial and Economic Crisis: Where Does It Stand and Where Do We Go From Here?

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Introduction[1]

The U.S. appears to be reaching a turning point for both the real economy and for the financial crisis which triggered this severe recession. This is good news indeed coming after many months of vile news, but we must keep firmly in mind the extreme difficulty of predicting the economy and the financial markets during this crisis. Consensus forecasts have been wrong repeatedly; unexpected, even unprecedented, events have followed close on the heels of one another. Cautious optimism should be the order of the day. We fear that the recent reactions of the financial markets and of some analysts carry too much of the optimism without recognizing enough of the uncertainty.

Public policy must remain focused on the very real possibility that the apparent easing in the economy's decline may be followed by little or no growth for several quarters and there could possibly be another negative turn. One of the risks is that the US is very connected to the rest of the world, most of which is in severe recession. The global economy could be a significant drag on US growth. If in fact the economy remains stuck in first gear for far too long, this will exacerbate the problems with unemployment and mortgage foreclosures. In the face of this risk, economic and financial policy over the next few months should emphasize, first, the execution of existing initiatives, many of which remain in early stages, and, second, contingency plans in case things go badly. We support the efforts by the Administration and Congress to evaluate the causes of the crisis and propose potential regulatory changes. But it is vital to keep the main focus of policymakers on dealing with the current crisis and make sure this really has been resolved before enacting major reforms designed for the future.

This recession has caused a lot of job losses and more are to come. Past experience tells us that many of the jobs lost in a recession do not ever return. Growth comes from the expansion of the healthy parts of the economy and from new investments and new firms. Creating the new jobs to restore full employment will require the active participation of a

[1] The authors would like to thank Charles Schultze, Ezra Greenberg, Sven Smit and other colleagues at Brookings and the McKinsey Global Institute for helpful comments. Matthew Johnson provided excellent research assistance.

healthy financial sector, which makes it critical to ensure the banks truly do complete their recovery.

This paper will review where we stand with the economy and the financial crisis, the likeliest path forward, and the risks to that relatively optimistic view. The purpose of this paper is not to make specific predictions about the economy. We do not know and we do not think anyone knows as yet how this recession will play out. The predictions of most professional forecasters are that the US economy will end its decline before the end of this year and grow at least modestly in 2010. But there is still a lot of uncertainty about when the recession will end, when growth will recover or whether the financial sector is firmly on the road to recovery.

Those famous "green shoots"

There has been considerable good news of late, in the sense that things are getting less bad. Forward looking indicators, such as stock market prices and consumer confidence measures, have moved up sharply from previous very low levels. These movements have been echoed by the bank stress tests, which forecast the ability of the large banks to survive through 2010 with an adequate cushion of capital. However, very few of the measures of the real economy or the financial markets have moved into truly positive territory. They would be better summarized as showing that the disasters are abating.

It is worth dwelling on the magnitude of the turn so far. The stock market has now staged a substantial rally and at the end of May it was nearly 40 percent higher than at its trough in March. The share prices of many financial companies have doubled or more—J.P. Morgan Chase, for example, rose from a low of less than $16 earlier this year to over $36 at the end of May. The rise in share prices has made it feasible for banks to raise capital in the private market and actually pay back some of the TARP funds they had taken. The Treasury's stress tests have been completed and most of the banks were pronounced sound and able to withstand even a worsening of the economy from here.

Consumer confidence, as measured by the Conference Board, hit an all time low of 25 in February of this year, but by May it had risen to 55. The index moved over 140 in mid 2000, so the recent rise does not show consumers are exactly buoyant. Still, a level of 55 is a whole lot better than the low of 25 and suggests consumers may be more willing to spend. House prices are still falling, but home sales are starting to rise and construction of new homes has dropped so low that the market should see the inventory of unsold homes begin to decline.

At the same time, there are plenty of signs that the economy still has serious problems. The unemployment rate rose by half a percentage point to 9.4 percent in May, while the decline in payroll employment since the start of the recession in December 2007 hit the 6 million mark. The drop in payroll employment has been particularly sharp recently, falling by 4.2 million in just the last 7 months, an average of 600 thousand a month. The data report for May did contain a hopeful sign because the employment decline for the month was 345 thousand, well below the recent average, and when combined with the revised figure for April, it is clear that the *pace of job loss is becoming substantially less severe*. Partially offsetting that "good" news in the latest report was the fact that the average work week fell to the lowest level on record. One useful measure of the state of the private sector labor market is given by the index of aggregate hours—the total demand for labor from the private sector—a number that has been reported since 1964. Until the current recession, the largest decline in that index over a 12 month period was 4.4 percent in March of 1975 compared to March of 1974. In May of this year, the index had fallen 7.2 percent from its level of 12 months earlier. *Private sector labor demand appears to have fallen faster and further in this recession than in any postwar recession by quite a bit*.[2] And it kept falling in May, as employers cut hours even though they did not cut employment as much.

GDP fell at an annual rate of 6.3 percent in the fourth quarter of 2008 and 5.7 percent in the first quarter of this year. The main economic forecasters see a slower pace of decline

[2] Since the data start only in 1964, this may be an overstatement. There is a chance that the demobilization of soldiers after World War II caused a more severe, if short run, disruption of the labor market. None of the recessions in the 1950s were especially severe, however.

in the second quarter, for example: Morgan Stanley -2.5 percent, Global Insight -2.5 percent, Oxford Economics -3.8 percent and Macroeconomic Advisers -1.1 percent. So the forecasters are seeing an expected slowing in the pace of economic decline that parallels the easing in the job market. What is missing so far is hard evidence that the economy will be able to generate growth in the second half of this year and sustained or strong growth in 2010. Keep in mind that GDP growth will have to reach or exceed 3 percent a year before unemployment actually starts to decline, and that may take a while to happen.

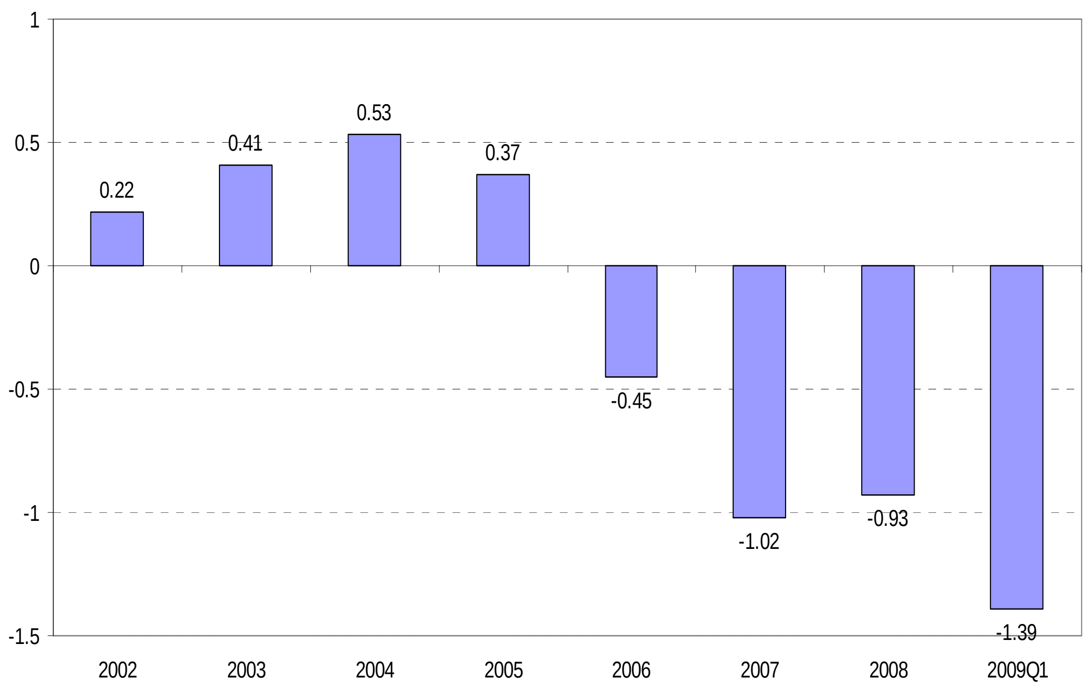
The Links Between the Financial Sector and the Rest of the Economy

For some time the US has seemed trapped in a downward spiral, a deadly dance between the financial sector and the main street economy. Massive underlying weaknesses in the financial sector set the stage for trouble in the housing sector that set off financial market declines which spread to the real economy. Declines in the real economy exacerbated the problems of financial institutions, which then created a credit crunch hurting the real economy, and so it went on.

Wall Street companies seemed able to print money for several years, reporting huge profits year after year, but this was too good to be true. The economic problems were first evident in the financial sector as investors began to doubt the true value of structured securities such as CDOs and CDSs that were built off real estate collateral. Many of these financial assets are traded and once their prices started to fall, this meant investment funds had to mark them to market and some were pushed into bankruptcy as early as the spring of 2007. August of 2007 was when a liquidity crisis hit, as financial institutions that had been relying on very short term borrowing were no longer able to roll over their liabilities at reasonable costs. Northern Rock in the UK and Bear Stearns in the US went under as a result. Banks started to doubt each other's stability and LIBOR, the main index of the rates charged by banks for lending to each other, soared. Central banks, including the Federal Reserve had been very active in responding to the crisis, but they and the Treasury decided "enough was enough" and they let Lehman go into what turned out to be a disorderly bankruptcy. The financial sector went into a full-scale crisis.

The real economy has danced to a similar and strongly related tune. A very high rate of home building in the early years of this century contributed directly and indirectly to growth. First, residential investment made a large direct positive contribution to GDP growth (see Figure below). Second, home purchases are usually accompanied by purchases of furniture, appliances, carpets and other household goods, adding to consumer demand. Third, the rapid rise in home prices fueled the rise in household wealth a portion of which was then spent on new cars, boats and vacations.

Figure 1: Contribution of Residential Fixed Investment to Real GDP Growth Turned from Strongly Positive to Large and Negative (in percentage points)



Source: BEA

The signs that housing as a booster of growth was starting to falter actually started quite early, had we been able to read the tea leaves better.[3] As early as 2005, home prices stopped rising and residential construction was slowing through the year. In 2006 home

[3] Some observers did notice the problem. For example, Paul Krugman pointed out that US economic growth was dangerously dependent on an unsustainable housing boom in his New York Times column while the boom was still in full swing.

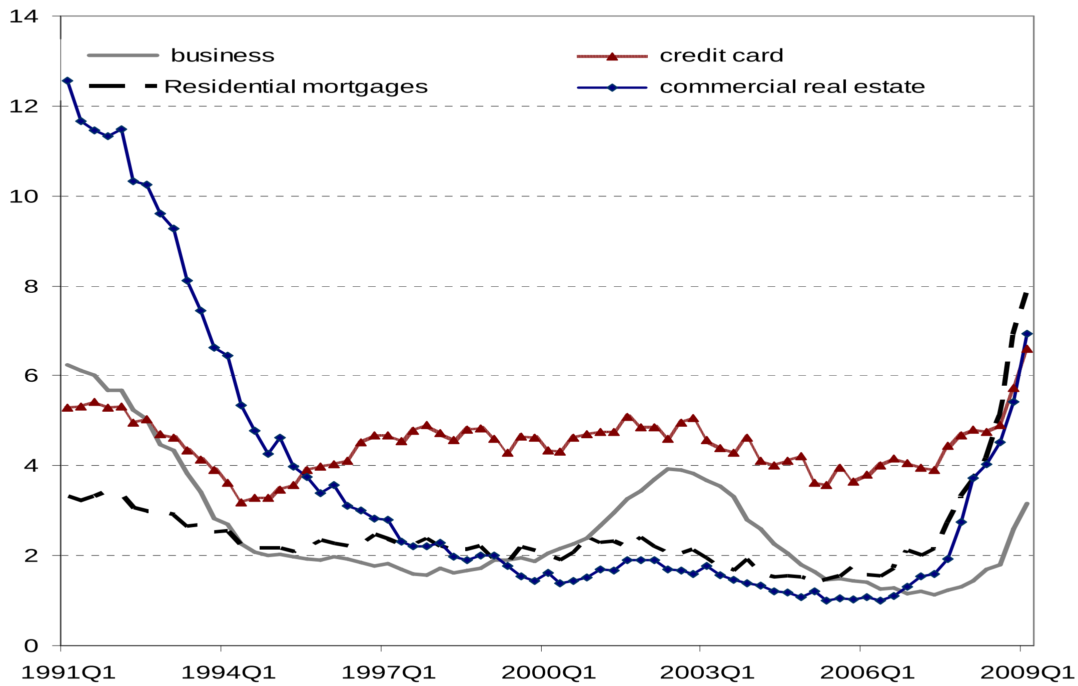
construction declined over 7 percent, followed by 18 percent in 2007, 21 percent in 2008 and there was a decline of over 38 percent in the first quarter of 2009 at an annual rate. Households lost $13 trillion of wealth from the peak through the end of 2008, coming mostly from equities and home prices (another $1.33 trillion loss in the first quarter of 2009 has just been reported). (Much of this wealth was illusory, in that it was based on unrealistically high asset values, but it felt like real wealth and could be converted into hard cash by those smart enough or lucky enough to liquidate at the right time.) Losing that kind of money can put a damper on even the usually optimistic American consumer. Jobs and total GDP held up a surprisingly long time, given what was happening in the housing and financial markets, but by mid 2008 the roof fell in, with rapidly declining GDP and payroll job losses of 600 thousand a month, as we noted in the introduction.

"Innovative" products from the financial sector and the high levels of consumer spending and borrowing reinforced each other in the boom, but once the downturn started the movie ran in reverse and the two sectors began pulling each other down. Probably at this point the real economy is leading the dance, as jobs are lost and companies scale back or close down. This is affecting the financial sector because a new wave of recession-induced asset losses are now coming down the pike. Condos built in Miami and tract houses in California were among the first wave of foreclosures but the boom also triggered many new shopping centers and office buildings that are looking pretty empty—"see-through buildings". Commercial loans and mortgages did not get into trouble as quickly as home mortgages, but many are imperiled now. As the figure below shows, commercial real estate loans had very high rates of delinquency in the early 90s, and it is possible they may reach those same rates in this recession. Experts in the commercial real estate market that we consulted suggested that default rates could well be much higher than the rates assumed in the Treasury bank stress tests.[4] Linked to the housing boom, families ran up their credit card debts, counting on the rising values of their homes to let them roll these debts into a new mortgage. That stopped working and the rates of credit card and consumer loan defaults are now rising also. The spread of

[4] Among others, we spoke to Chris Mayer of Columbia who studies the real estate market. We are solely responsible for the statement, however.

defaults and foreclosures beyond the initial mortgage backed assets is making it harder for the financial sector to recover.

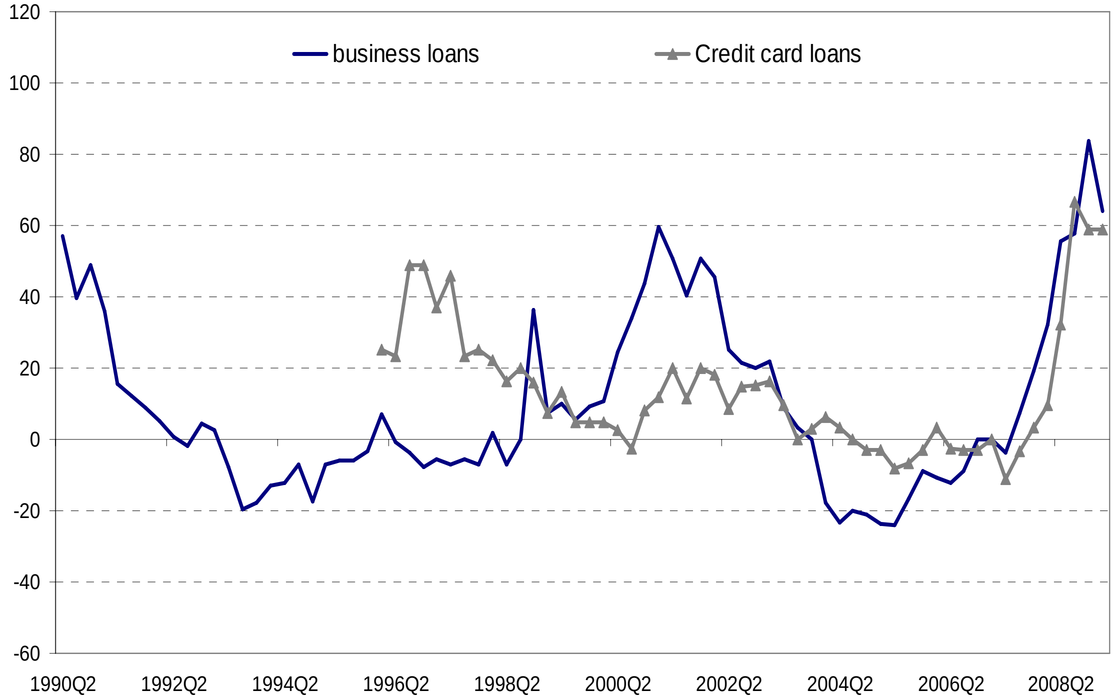
Figure 2: Delinquency Rates of Loans by Commercial Banks, by Type of Loan (percentage points)



Source: Federal Reserve. Delinquent loans include all those that are more than 30 days overdue.

And the problems in the financial sector are also deepening the recession, although it is hard to say exactly how much. We know that the rate of consumer and business borrowing is way down in part because the demand for loans is down. But some businesses and households still want to borrow or need to borrow. Households face unexpected medical bills, college tuition payments and cars that are wearing out or breaking down. Many families have been told that their lines of credit have been cut back or eliminated and they cannot make the purchases they need to make or pay for the spending they had already committed to. The figure below illustrates the dramatic tightening of bank lending standards. On the business side, for a while even large companies with investment-grade credit ratings had trouble borrowing to meet payroll and working capital needs, but fortunately their situation has eased. Still, today many smaller or riskier companies are credit constrained or are forced to borrow at spreads that are very high compared to Treasury interest rates. The spreads between AAA and BAA corporate bonds have come down since 2008, but remain at their highest levels since 1982. Conserving cash is still the number one goal for many businesses, both because borrowing has become more difficult and because CEO's have sworn to never be as dependent on lenders as they were in the years preceding the crisis. This is not an environment that is conducive to expansion or hiring.

Figure 3: Bank Lending Standards Have Tightened Dramatically. *Net percentage of U.S. Commercial Banks Tightening Lending Standards Compared with Previous Period*



Source: Federal Reserve Senior Loan Officer Opinion Survey

One of the important lessons learned by economists about business cycles in recent years is that a surprisingly large fraction of job losses are permanent, in the following sense. A plant or company that lays off workers in a recession will very often not rehire the same number of workers when the recovery comes. In addition, many of the jobs lost in a business cycle downturn come from plant closures and these are almost always permanent.[5] The American auto industry today gives a compelling example of this.

[5] See for example Steven J. Davis, John C. Haltiwanger and Scott Schuh, *Job Creation and Destruction*, paperback edition 1998.

Plants are being closed permanently and staffing levels are being reduced. Employment in this industry may grow again in the future, but almost certainly it will not go back to its old levels and future growth is unlikely to come from reopening the plants now being closed.

These findings are significant as we look towards economic recovery because they show that *restoring full employment in the US will require creating a lot of new jobs, not primarily getting back the old jobs*. This shows, in turn, the importance of a healthy financial sector to the task of restoring economic growth. The recovery of employment and GDP will come from sectors and companies that expand production and employment. These companies will need to borrow for investment, often for risky projects, and to finance working capital. The US economy experienced very slow job creation for many months after the 1990-91 recession, and in the recovery since the 2001 recession the level of total hours worked (the index of aggregate hours mentioned earlier) barely rose at all. We cannot count on the kind of employment recovery that was typical in US recessions in the earlier postwar business cycles.

Studies at the IMF and by Reinhart and Rogoff support this view as they find evidence from past financial crises indicating that the negative impact these have on economic growth can last for a very long time.[6] In other words, if the financial sector remains broken after a crisis, then the recovery of employment and GDP is very slow. We suspect that their conclusions, which look at other countries in rather different situations, may be a bit too pessimistic when applied to the current US economy, but their broad point is well-taken. Past history shows that when a severe crisis damages the financial sector the impact can be prolonged. Thus it is vital that the US financial sector start functioning well again in order to move us out of this recession.

[6] See Reinhart, Carmen M. and Kenneth S. Rogoff. 2009. The Aftermath of Financial Crises. Presented at American Economic Association meeting; January 3, and Claessens, Stijn, M. Ayhan Kose and Marco E Terrones, 2008, "What Happens During Recessions, Crunches and Busts?" IMF Working Paper No: 08/274.

Policymakers at the Fed and Treasury certainly know the importance of the financial sector and its health and it was a key reason for the bank stress tests that have now been completed. What did those tests show?

Did the stress test results sound the "all clear" for banking?

The financial markets have treated the results of the regulatory "stress tests" on the largest 19 banks in the U.S. as signaling the end of the banking crisis. The prices of bank stocks have soared, the overall stock market has climbed significantly, and the credit markets have continued to ease towards more normal pricing.

Is the market right? Did we hear the "all clear"? Unfortunately, it is premature to conclude that the bottom has been reached. We may discover later that the spring of 2009 was indeed the worst point, but there is a wide range of uncertainty that will not be dispelled for some months, at a minimum.

The results of the stress tests were clearly good news, even if not definitive. The Federal Reserve and the other regulators performed a detailed test of each of the 19 major banks and concluded that only $75 billion more of capital was needed in aggregate. This may sound like a lot, but it represents less than 1% of their $10 trillion of assets. If that is correct, it is good news. Two further points make it even better news. The bulk of the capital requirement was not even net new capital; almost all of it could be handled by converting one form of capital (preferred stock) into another, stronger form (common stock.) In addition, these capital levels are supposed to be enough to handle an economic scenario even tougher than most economists expect to occur, which is why it was labeled a "stress test."

However, the test results should be viewed as informed guesses more than solid point estimates. The test results gave a number for each bank that was the amount of capital it needed in order to avoid falling into trouble—that is finding itself with too little capital. However there is in fact a wide band of uncertainty around that estimate of the needed capital. A large portion of the credit losses are still to come, particularly in some major categories such as commercial real estate, commercial and industrial loans, and credit cards. Many classes of loans have a substantial lag between when the economy bottoms out and the point at which most of the losses have occurred. In addition, we are in an economic environment with many unprecedented features, so any estimate of the total losses through the end of 2010 is necessarily uncertain. The "white paper" explaining the methodology used by the regulators for the stress tests is replete with different ways of saying that numerical estimates were compiled and then regulatory judgment was applied to choose the final figures. This is not a criticism. There is no objective way to make these forecasts; we are left with subjective judgment built on top of factual analysis as our only choice. We just need to remain aware of the severe limits on human ability to predict the future.

One way of evaluating the stress test results is to compare them with estimates from other good analyses. Encouragingly, the stress test assumptions are at least modestly more conservative than the base case forecasts from the International Monetary Fund (IMF) and from Goldman Sachs. Analysts at these two organizations have arrived at roughly similar conclusions, which are built on underlying assumptions consistent with consensus forecasts for the overall economy. If we view the consensus as roughly 50% likely to be right, neither too optimistic nor too pessimistic, the stress test assumptions on the economy and on the consequent net losses in the banking industry are probably 60-70% likely to be right or too conservative.

The biggest reason to be cautious is that we are in an economic cycle that has been extremely difficult to predict. As a result, there are respected analysts, such as Nouriel Roubini of NYU's Stern School, who are much more pessimistic. He foresees the economy shrinking by a point or a point and a half of GDP more than the consensus, which helps to drive his estimates for losses retained by the banks to a level $700 billion higher than the IMF forecasts.

Viewed another way, if the estimates of capital requirements based on the stress tests were off by just 3% of the value of these banks' assets, it would be roughly a $300 billion miss. It's nice to hear that the necessary capital is only $75 billion, but it will be a lot less comforting if the real number turns out to be $375 billion. If Roubini is right, that figure would be far higher still.

It is also important to keep in mind that the stress tests and the projections of the IMF, Goldman, and Roubini all forecast substantial additional loan losses. The stress tests assumed $535 billion of credit losses for the stress test banks alone in 2009 and 2010, which implies about $800 billion for the banking system as a whole. This figure would have been regarded as very bad in any other credit cycle, even disregarding the huge losses already absorbed. Some of the $800 billion represents delayed recognition of losses that are already known, but the bulk, as noted earlier, will come from newly minted losses in areas such as commercial real estate.

The good news from the stress tests is that banks can absorb these loan losses through their substantial underlying profitability (when loan losses are excluded), plus a cushion of existing excess capital, augmented by the modest additional capital actions. Of course, this does mean that the level of core profitability is important. Fortunately, past recessions and the early experience from this one show that bank profits, exclusive of credit losses, are resilient. Part of this is because a credit crunch is an ideal time to be deploying capital – risk-takers, such as banks, are being paid well now to provide loans or investments that are also being underwritten much more cautiously than during the boom. By the end of the credit bubble, banks were being paid badly to take lousy risk. Now they are being paid handsomely to take good risks. This is bad for the economy, but good for the banks. The net effect is that the level of bank profitability matters, but its resilience means that the real variable driving bank solvency will be the credit losses on old loans and investments.

In sum, the banking industry appears to be on much more solid ground than back in the fall of 2008, but this is more a measure of the trouble we were in than a ringing endorsement of our current state.

Can the Banks Provide the Expansion of Credit Needed for Recovery?

Even if we did hear the "all clear" back in May, this is a far cry from saying that we have a banking system ready to step forward and supply all the credit needed to assure solid growth. There are two key issues. The most important is that while bank lending has remained relatively stable, other credit providers have cut back sharply, particularly those who took on credit exposure through the purchase of securitizations. In addition, demand for credit grows over time. Having only enough capital at the end of 2010 to handle today's lending volume would not leave room for growth.

Prior to the financial crisis, roughly 40% of lending was ultimately supplied by buyers of securitized packages of loans. These end-investors were mutual funds, pension funds, and other investors who had traditionally not been major loan providers, instead providing credit principally through the purchase of corporate bonds. Securitization has collapsed to a fraction of its previous volume and these sources of credit capacity have largely withdrawn, leaving a gaping hole.[7] Nor, for the most part, did investors simply transfer their credit provision back to the corporate bond market. The issuance of corporate bonds in the last part of 2008 fell off dramatically; not even covering the redemption of old bonds. Issuance by higher quality borrowers has picked back up this year, but the issuance net of redemptions does not come close to covering the drop in securitization volume.

Ideally, the banking system would step forward to close the gap, but it has nowhere near the capital to do this. It would take a number of years of strong profits to generate sufficient capital to support that additional lending volume. Realistically, that bank capital would have to come from outside investors, which means reaching a point where confidence in the banks has been restored and investors are willing to buy bank shares at a price that existing shareholders find reasonable. That point is likely another year or two away. Recent capital-raising by banks has been encouraging for its mere existence, not

[7] For example, SIFMA reports that $769 million in CDOs were issued globally in 2009Q1, having fallen from a peak in 2007Q2 of $178,620 million – or a drop of 99.5 percent! (CDOs were a large source of credit to businesses, as these instruments packaged corporate loans and bonds alongside mortgages, auto loans and other types of loans).

for its aggregate size. Even when the capital becomes available, banks will probably not wish to close the entire gap, because they can employ their capital elsewhere on more attractive risk and return terms. Some of this lending could be supplied by new securitizations, but some of it is likely to vanish forever, having been an artifact of excessively loose credit conditions.

A faster, more effective way to fill the gap would be for the efforts of the Fed and the Administration to succeed in helping to revive the securitization market for new issuances. In particular, the Term-Asset Backed Securities Lending Facility (TALF) represents a promising approach to boosting the market. In the TALF, the Fed offers to provide very substantial funding for investors who wish to buy certain types of securitizations of recent loans that achieve a Triple-A rating from the major rating agencies. In addition to providing funding at a reasonably cheap rate, the Fed and Treasury also agree to absorb any losses greater than approximately 10% on the securities being purchased. The combination of cheap liquidity and an effective floor on the investors' possible losses allows investors to charge significantly lower rates on the securitizations while still achieving an attractive risk/reward profile. The Fed is prepared to support as much as $1 trillion of purchases over time.

The TALF program has started relatively slowly, but has been gaining momentum. It appears that technical issues, principally about who bears various legal risks, were the biggest obstacle. As these are being worked out, and as the first few issuances were seen to go smoothly, activity is picking up. There has also been a concern among some potential investors that the executive compensation restrictions could be applied to them as "TARP recipients," given the Treasury role in sharing the risks with the Fed. This has doubtless kept some investors away, but is not likely to significantly limit the market, since the majority of investors appear willing to take the political risk.

A return of market confidence will be as important as the federal efforts. In fact, those efforts are intended to encourage the return of normal market conditions and will be phased out as market participants return in volume. Most of the securitization market appears to have been based on sound structural principles, even if the spreads being charged were too low to cover the risk. That is, the basic mechanisms were sound in most cases and would not need to be changed, even if pricing and credit standards are adjusted to reflect hard-won knowledge about the credit risks. On the other hand, there are clearly parts of the securitization market, such as "CDO squareds" which were based on unsound principles and will never return.

In summary then, our judgment is that the financial sector looks to be on track for recovery but that significant risks remain. What about the risks in the real sector of the economy?

Can the US Economy Grow if the Rest of the World is Not Growing?

The economic and financial crisis that originated here has spread around the world through two main mechanisms. First, foreign financial institutions bought a lot of the mortgage-backed securities issued in the US and have experienced losses just like the Wall Street firms. In many cases, accounting rules in Europe have allowed the banks to delay marking the assets to market, masking the depths of the problems they face[8]. The mortgage problems in the US also caused a reassessment of the riskiness of the real estate booms that several nations in Europe had experienced in their own countries—sometimes even stronger booms than the one in the US. These countries had not allowed the steep decline in lending standards that occurred in the US, but once home prices started to fall, they too faced mortgage defaults.

Second, the US economic crisis has triggered a huge drop in world trade. US imports started falling in the fourth quarter of 2007 and fell at an astounding annual rate of over 34 percent in the first quarter of 2009. Quantitatively, US imports have been an important component of world demand during the period of strong world growth. But the

[8] In its April 2009 edition of its *Global Financial Stability Report* the IMF not only estimates that European banks will have to write down more losses than their U.S.-based counterparts, but it shows that they have recognized significantly less of those losses to date. In current-day jargon, the "recognition gap" is much higher among European banks than U.S. banks. The report estimates that European banks will have to write down a total of $750 billion in losses through 2010 (versus $550 billion for U.S. banks), but that they have only written down $154 billion as of April 2009 (while U.S. banks have written down $510 billion already).

fall in trade has not just been because of the collapse of US consumer spending. Once the downturn started, the overinvestment in Eastern Europe, the Mid East and parts of Asia was curtailed, bringing on a very sharp drop in capital goods purchases worldwide. The large capital goods producing countries such as Germany, Japan and the United States have all been affected.

The rest of the world likes to blame the US for the current global economic problems and this has some justification because many of the excesses and bad practices started here. But this argument only holds up to a point. Europe, Japan and other parts of the world now have problems that are of their own making, even if they have been exposed by the US-initiated slowdown. Declines in GDP at annual rates for the first quarter of 2009 were 14.4 percent for Germany, 15.2 percent for Japan, 7.4 percent for the UK, 9.8 percent for the Euro area and 21.5 for Mexico. All of these numbers are worse than the US decline. Many countries had created their own unsustainable booms fueled by high levels of borrowing. On the financial side, the IMF has estimated that losses among European financial institutions may even be larger than those among American banks. There was risky lending made to Eastern Europe that is now defaulting and putting Austrian and German banks at risk.

There are two ways in which a weak global economy can make it harder for the US to grow and the first is the real economy effect. Telling this part of the story is a bit complicated. The US is a major exporter and importer of goods and services so that net exports (exports minus imports) can provide either a substantial negative drag on aggregate demand and growth in the US or a substantial positive boost to demand. During the early years of this century, net exports were negative and that resulted in a reduction in US aggregate demand. As we know, the US trade deficit expanded very rapidly. Once the economy recovered from the 2001 recession the drag on US aggregate demand coming from trade was not in itself a huge problem. The economy was able to get to full employment anyway.[9]

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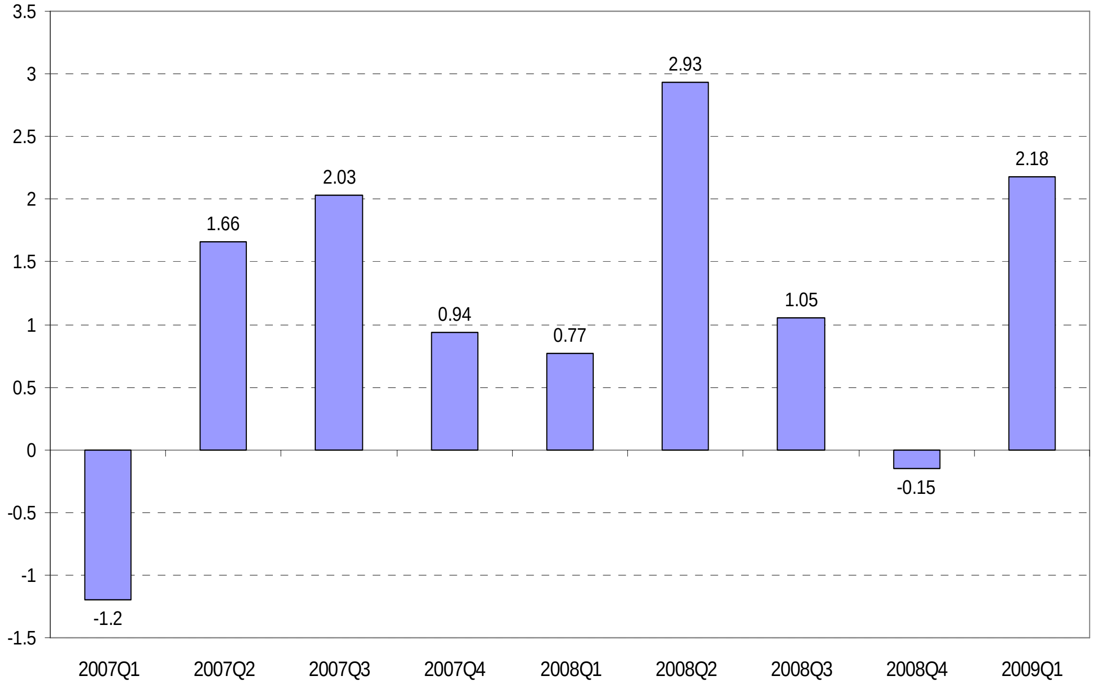
[9] There were economic effects, of course. US manufacturing employment was hurt by the deficit and US inflation was helped by the flow of cheap imports.

Once the US economy started to slow, the effect of trade actually turned around. The US economy went into recession sooner than other countries and US imports declined strongly while exports held up for a while, with the result that the change in net exports became a positive factor, adding to US aggregate demand.[10] This was not a surprise in that any introductory economics class teaches that foreign trade can have this effect, but the magnitude of the impact was surprisingly large. The figure below shows that net exports made a major contribution to US economic growth in most quarters from the second quarter of 2007 through the first quarter of 2009. In the second quarter of 2008, the positive contribution of net exports added nearly 3 percentage points to growth as US imports fell more than US exports. In that same quarter the overall growth of GDP was only 2.8 percent, so the foreign trade effect accounted for all of the growth, actually more than 100 percent of it. That was only one quarter and the positive impact fell in the third quarter and was a small negative in the fourth. It is noteworthy, though, that in the first quarter of 2009, the positive impact of trade was again very strong. Arithmetically, the change in GDP in that quarter would have been -7.9 percent instead of the reported -5.7 percent, had it not been for the impact of net exports.

[10] The level of the trade deficit remained large, but it was getting smaller instead of bigger (the large movements in oil prices complicate this story, but the key point is that real aggregate demand was boosted by trade).

Figure 4: For the Past Two Years, Net Exports have Contributed Positively to U.S. Demand and Growth (*Contribution of Net Exports to Real GDP; percentage points)*



Source: BEA

What does this tell us about the ability of the US economy to recover in the middle of a global recession? First it provides a warning that it is dangerous to over-interpret the figures for US GDP growth in any one quarter. Swings in exports and imports can be large enough to move the quarter to quarter GDP data in ways that can be misleading—up or down—about the longer term US outlook. Second and more importantly, it points to an additional risk to the prospects for US growth. The US economy went into recession sooner than the rest of the world and most forecasters expect that the US will be the one that leads the global economy out of recession. If that is the case, then US imports are likely to start picking up while exports are still falling or remain depressed. On the way down into the US recession, foreign trade provided a buffer that mitigated the decline in GDP (as the figure above showed). On the way up, foreign trade is likely to be a drag on US growth. A global economy in recession will make it harder for the US to sustain a strong recovery. Germany and Japan may present particular problems in this regard. These are the second and fourth largest economies in the world and, in the past, their economies have shown difficulty generating domestic demand growth.

The second mechanism linking the US recovery to the rest of the world is through the financial sector. The US remains very dependent on capital flows from the rest of the world to finance its investment and to fill the gap caused by its low rate of saving, even if that rate has increased recently. The huge flows of global trade and the workings of multinational companies depend upon confidence that participants can buy the securities and derivatives they need to handle the risks of changing currencies and interest rates. Global financial markets are working better now and starting to recover. But it appears there are large losses remaining in European banks that have not yet been recognized or dealt with. In its April 2009 edition of its *Global Financial Stability Report* the IMF not only estimates that European banks will have to write down more losses than their U.S.-based counterparts, but it shows that they have recognized significantly less of those losses to date. If additional financial institutions overseas were to go under, or markets were again to become highly volatile, this would slow the recovery of the global economy, including the US economy.

Because of its size and the fact that imports and exports remain only modest fractions of our GDP, the US economy is better positioned to recover alone than almost any other economy. But we are still very connected to the global economy through trade and finance. Unless the other advanced economies are able to restore some modest growth and financial stability, the global economy will remain a significant problem for US recovery.

Where will US Demand Growth Come From? Consumers? Government?

Between 2000 and 2007, US households consumed at a prodigious rate, pushing the ratio of consumption to GDP up to 77 percent and accounting for a third of the growth in consumption globally.[11] Household incomes were not growing very fast but wealth was, and families responded by spending beyond their means. The ratio of household debt to disposable income rose from 103 percent in 2000 to 139 percent in 2007.

[11] This discussion draws on Martin N. Baily, Susan Lund and Charles Atkins, *Will US consumer debt reduction cripple the recovery?* McKinsey Global Institute, 2009.

Correspondingly, the personal savings rate has fallen—as recently at 1981, the rate was 12.2 percent, but it fell to 2.3 percent by 2000 and to -0.7 percent in 2005.

This process is now working in reverse. Household net worth relative to income has fallen by 23 percent since the peak and is back to the level of the mid 1990s. The fear of job loss or income decline is reinforcing the impact of the loss of wealth. Recently, household net new borrowing actually turned negative for the first time in the postwar period and the personal saving rate was 4.4 percent in the first quarter of this year. Personal consumption did rise modestly in the first quarter, but this was following sharp declines in the second half of 2008. US households are going through a deleveraging process where they bring their debt more in line with its traditional relation to income and as they adjust to the loss of household wealth.[12] The US consumer has always been resilient and keeps spending even under adverse circumstances. But the body blows to income and wealth in this downturn suggest that the growth in consumption in the remainder of 2009 is likely to be slow, and that may continue into 2010.

There is a paradox here. The US economy has been spending too much and borrowing too much for years and the rest of the world depended on the US consumer as a source of global demand. Eventually, it is essential that US growth be based on more exports and fewer imports and a slower rate of growth of consumption -- a more balanced growth path. But we cannot get there in the next few quarters because the global economy just is not strong enough. Navigating our way out of this recession and into a more balanced growth path in the long run is a big challenge.

The Administration made a stimulus package the centerpiece of its economic recovery package, letting government spending substitute for weakness in consumption and investment. That policy approach made sense and was widely supported in the economics profession as well as by policymakers. If it works, the fiscal stimulus together

[12] Robert Hall of Stanford pointed out to us that in a life-cycle model of consumer behavior a decline in the stock market caused by a rise in the discount rate would lower wealth but should not in itself lower consumption (because the flow of income available to consumers has not changed). We acknowledge the point, but believe that the empirical evidence supports the view that wealth does affect consumption. The assumptions required for the Hall result may not hold in practice.

with low interest rates from the Fed will get economic growth going again and consumers will be able to restore a more normal ratio of debt to income by having income grow faster than debt.

Is the stimulus package working? It is early days yet to know the answer. In the first quarter of 2009, federal spending actually showed a decline from the prior quarter and the same is true for states and localities that are facing large budget deficits. The stimulus package included some modest tax cuts that boosted disposable income already, but basically the spending part of the package will not go into effect until the second half of this year and into 2010. The fiscal stimulus is a policy response whose impact is largely still to come.

What Should Policymakers Do Now?

Bernanke was right. There are green shoots that tell us at the least that the US economy is ending its free fall and is likely to flatten out by mid year or in the second half of 2009. And the financial markets are right to be more optimistic. The situation of the financial sector was probably never quite as bad as the pessimists suggested and, in any case, is looking better now than it did a short time ago. But as we have stressed in this paper, there remains a lot of uncertainty and policymakers should not rest on their laurels or turn to other policies, even if they look more exciting. It is vital to follow through on the current financial rescue plans and to have well-conceived contingency plans in case there is another dip down.

Specifically, we have three fundamental recommendations for the financial rescue plans. First, focus on execution of the existing programs. The Administration has created programs to deal with each of the key elements necessary to solve the financial crisis. All of them have significant steps remaining and some of them have not even started yet, such as the programs to deal with toxic assets. As has been demonstrated multiple times now since October 2008, these are complex programs that require a great deal of attention. It is time to execute rather than to create still more efforts.

Second, resist the temptations and pressures to allocate money from the Troubled Asset Relief Program (TARP) to other uses, such as guaranteeing municipal bond offerings. These other uses may be worthy, but it is essential to maintain a reserve of Congressionally authorized funds in case we still need them for the banks. It would be difficult to overemphasize the remaining uncertainties about bank solvency as they navigate what will remain a rough year or more. The banks could easily need another $300 billion of equity capital and might need still more. These amounts would not be available from the markets, particularly as the need would imply significantly worse banking results than markets are expecting. It is essential that the Administration have the ammunition readily available if it proves necessary. Uncertainty about Congressional authorization of additional funds could create panic in the markets and exacerbate a future stage of the crisis. The good news is that we might easily find in a few months that the uncertainties are resolving themselves positively and that the funds can be freed up to assist with the recovery in other ways.

Third, make sure there is a contingency plan to deal with a major setback for the banking system. The plan needs broad support within the Administration and among regulators and, ideally, from key Congressional leaders. We probably won’t need it, but there is too high a chance that we will require it for us to remain without one. The country cannot afford even the appearance of the ad hoc and changing nature of the responses that were evident last fall.

We also have a few thoughts on the specific programs. The bank recapitalization efforts, such as those associated with the recent stress tests, have been well-conceived and have been helpful. They need to be extended to the next tier of banks, as is occurring now. There also needs to be a resolution of the desire of some of the stronger banks to buy back the TARP shares and warrants. The Administration appears to have the right balance here – strong banks should be allowed to repay, but it should not be made too easy and the warrants should not be sold back too cheaply. Public policy considerations suggest having the banks keep the government capital to encourage lending and reduce still further any fears about banking solvency. However, it is unfair to force strong banks to hold excess capital beyond a reasonable cushion reflecting the risks of this financial crisis, so repayment should be allowed.

The TALF program is well-designed and we applaud the efforts of the Fed to accelerate its takeoff. There are encouraging signs that usage is expanding significantly, but anything further that can be done without taking on too much risk would be helpful.

We are much more skeptical of the approaches to toxic assets. As noted from their inception, our preference would have been to provide guarantees directly to the banks, such as is being done in the U.K. and was done with Citigroup and Bank of America on more limited bases. One advantage of that approach would be avoiding the need to find a price on which potential buyers and sellers could agree. It is too late in the game to switch now, but the proposed Legacy Loan and Public-Private Investment Partnership programs have indeed run into this problem in great measure. The banks are feeling good enough about their holdings of toxic assets that they are extremely reluctant to sell at anything like the price at which opportunistic private buyers would like to purchase them. The substantial economic incentives that the government is offering to persuade buyers to up their bid for these assets will help, but seems unlikely to fully bridge the gap. The most likely result is that the programs fizzle, never really generating much volume.

We could be wrong about this complex topic, so perhaps it is worth the effort to continue trying to build the PPIP. (The Legacy Loan program appears more troubled, for various technical reasons about which we have written elsewhere.) The good news is that if the stress tests are right, it is not critical that we deal directly with the toxic assets. The ground has shifted since last fall, when it appeared that toxic assets constituted the bulk of the problem. The severe recession has changed the balance, so that conventional loan categories are likely to produce two-thirds of the losses and an even higher percentage of the losses that have not yet been recognized. Fortunately, the stress tests indicate that the banks could hold onto their toxic assets and troubled loans and still have the capital to function effectively, albeit not lending as aggressively as we would like to see.

Turning to the real sector of the economy we are cautious about what more should be done. When he was Treasury Secretary in 1999-2000, Lawrence Summers commented on the advantages that had been created by a budget surplus. One of the most important, he said, is that we have "reloaded the fiscal cannon." In other words, if a severe recession were to come along, the federal government could enact a major tax cut or spending program to stimulate the economy without inducing a huge budget deficit. As part of the Obama Administration he strongly supported firing a big blast from the fiscal cannon, even though it was no longer loaded because this Administration had inherited budget deficits not surpluses. His original analogy was not a perfect one. The government can in fact provide fiscal stimulus even if it starts with a budget deficit. It was necessary to enact a stimulus package even though that meant expanding the inherited large budget deficits. The need for the stimulus was great enough to overcome the budget concerns. But the combination of bank rescue plus fiscal stimulus has now resulted in truly mind-blowing budget deficits this year and next and projections for continued deficits beyond that. Treasury securities so far have remained attractive, and interest rates are low by historical standards. But there is a danger that markets will not be able to absorb the amount of government borrowing needed without triggering a rise in US interest rates and perhaps an unstable decline in the value of the dollar.[13]

With a sound strategy in place to restore the financial sector and with an economy that is already slowing its rate of decline, we believe there should not be a further fiscal stimulus. After all, most of the Obama stimulus package is still in the pipeline so, in a sense, we still have a fiscal stimulus to come. If it should turn out that the economy remains in free fall, with sharply declining GDP in the third and fourth quarters of 2009, then this recommendation would have to be reconsidered. At that point, there would be a case for quick, targeted tax rebates to help stem the fall. The fiscal cannon would have to be fired again, even if it were hard to find the gunpowder to do it.

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[13] Keynesian economists point out that in a deep recession the problem is excess saving and there should be no danger of a "crowding out" effect from fiscal expansion. However, if global markets perceive a danger of default on US Treasury borrowing or a risk of future inflation then there would be a rise in long rates even in a recessionary economy.

Conclusion

It is possible or even likely that the worst is over in financial markets and the economy will slowly start to mend. However, there are enough risks to this forecast that policymakers and markets cannot relax. Public policy should execute on the many existing initiatives and keep its focus on the financial and economic crisis, even if it turns out that recovery is now on the way. That is a better outcome than confronting another leg down in the crisis without a solid base of programs to mitigate the problems.