

THE BASELINE SCENARIO, October 20, 2008

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The Baseline Scenario is our periodic overview of the current state of the global economy and our policy proposals. It includes three sections:

1. Updates that have caused us to modify the baseline since the last version
2. Analysis of the current situation and how we got here
3. Policy proposals

Please note that we do not currently publish our upside and downside risk scenarios in detail.

UPDATES

This edition of the Baseline Scenario has been extensively updated to reflect recent events, in particular the adoption by the world's leading economic powers of the first two of our proposals in our original Baseline Scenario (<http://baselinescenario.com/baseline-080929/>).

Europe and the US recapitalize

Last week was a momentous week in the financial crisis, with Europe and the US taking their largest steps yet to stem the credit crunch. On Monday (<http://baselinescenario.com/2008/10/13/bank-recapitalization-monday/>), the UK implemented its bank recapitalization plan, and several European countries announced plans for recapitalization and loan guarantees. As we found out that night, Henry Paulson spent the day twisting the arms of nine US bank CEOs, and the next morning (<http://baselinescenario.com/2008/10/14/bank-recapitalization-arrives-in-the-us/>) the US announced that \$250 billion of TARP money was going into recapitalization.

Is the credit crisis easing?

There are real signs that the credit crisis is easing (<http://baselinescenario.com/2008/10/17/credit-crunch-easing/>), at least as far as interbank lending is concerned. LIBOR is coming down, Treasury bill yields are going up, and the market for high-quality commercial paper has started to come back to life. To track this on a daily basis, try Calculated Risk or Planet Money. (However, although banks are finding it slightly easier to raise money, mortgage rates have actually gone up.)

The real economy continues slowing

A barrage of economic indicators shows the economy slipping further into recession, at least in the US (<http://baselinescenario.com/2008/10/18/slouching-toward-recession/>).

Emerging market problems deepen

The other major development of the week has been the increasing problems faced by emerging markets (<http://baselinescenario.com/2008/10/18/emerging-market-developments/>), even potentially China (<http://baselinescenario.com/2008/10/18/recession-in-china/>).

OVERVIEW (largely rewritten this week)

The roots of the crisis

For at least the last year and a half, as banks took successive writedowns related to deteriorating mortgage-backed securities, the conventional wisdom was that we were facing a crisis of bank solvency triggered by falling housing prices and magnified by leverage. However, falling housing prices and high leverage alone would not necessarily have created the situation we are now in.

The problems in the U.S. housing market were not themselves big enough to generate the current financial crisis. America's housing stock, at its peak, was estimated to be worth \$23 trillion. A 25% decline in the value of housing would generate a paper loss of \$5.75 trillion. With an estimated 1-3% of housing wealth gains going into consumption, this could generate a \$60-180 billion reduction in total consumption - a modest amount compared to US GDP of \$15 trillion. We should have seen a serious impact on consumption, but, there was no a priori reason to believe we were embarking on a crisis of the current scale.

Leverage did increase the riskiness of the system, but did not by itself turn a housing downturn into a global financial crisis. There is no basis on which to say banks were too leveraged in one year but were safe the year before; how leveraged a bank can be depends on many factors, most notably the nature and duration of its assets and liabilities. In the economy at large, credit relative to incomes has been growing over the last 50 years, and even assuming that credit was overextended, today's crisis was not a foregone conclusion.

There are two possible paths to resolution for an excess of credit. The first is an orderly reduction in credit through decisions by institutions and individuals to reduce borrowing, cut lending, and raise underlying capital. This can occur without much harm to the economy over many years. The second path is more dangerous. If creditors make abrupt decisions to withdraw funds, borrowers will be forced to scramble to raise funds, leading

to major, abrupt changes in liquidity and asset prices. These credit panics can be self-fulfilling; fears that assets will fall in value can lead directly to falls in their value.

A crisis of confidence

We have seen a similar crisis at least once in recent times: the crisis that hit emerging markets in 1997 and 1998. For countries then, read banks (or markets) today. In both cases, a crisis of confidence among short-term creditors caused them to pull out their money, leaving institutions with illiquid long-term assets in the lurch.

The crisis started in June 1997 in Thailand, where a speculative attack on the currency caused a devaluation, creating fears that large foreign currency debt in the private sector would lead to bankruptcies and recession. Investors almost instantly withdrew funds and cut off credit to Malaysia, Indonesia and the Philippines under the assumption that they were guilty by proximity. All these countries lost access to foreign credit and saw runs on their reserves. Their currencies fell sharply and their creditors suffered major losses.

From there, the contagion spread for no apparent reason to South Korea - which had little exposure to Southeast Asian currencies - and then to Russia. Russia also had little exposure to Asia. However, Russia was funding deficits through short-term ruble bonds, many of which were held by foreign investors. When short-term creditors panicked, the government and the IMF could not prevent a devaluation (and a default on those ruble bonds). GDP fell 10% the following year. After Russia, the story repeated itself in Brazil. In December 1998 Brazil let the currency float, leading to a sharp depreciation within one month.

In each case, creditors lost confidence that they could get their principal back and rushed to get out at the same time. In such an environment, any institution that borrows short and lends long is vulnerable to such an attack. The victims had one common trait: if credit were cut off they would be unable to find funding. The decision of credit markets became self-fulfilling, and policy makers around the world seemed incapable of stopping these waves.

The current crisis

The evolution of the current financial crisis seems remarkably similar to the emerging markets crisis of a decade ago.

America's crisis started with creditors fleeing from sub-prime debt in summer 2007. As default rates rose, investment-grade debt - often collateralized debt obligations (CDOs) built out of sub-prime debt - faced large losses. The exodus of creditors caused mortgage finance and home building to collapse.

The second stage began with the Bear Stearns crisis in March 2008 and extended through the bailout of Fannie Mae and Freddie Mac. As investment banks evolved into proprietary trading houses with large blocks of illiquid securities on their books, they

became dependent on the ability to roll over their short-term loans, regardless of the quality of their assets. Given sufficient panic, it can become impossible to roll over those loans. And in a matter of days, despite no major news, Bear Stearns was dead. However, while the Federal Reserve and Treasury made sure that Bear Stearns equity holders were penalized, they also made sure that creditors were made whole - a pattern they would follow with Fannie and Freddie. As a result, creditors learned that they could safely continue lending large financial institutions.

This changed on September 15 and 16 with the failure of Lehman and the "rescue" of AIG, which saw a dramatic and damaging reversal of policy. Once Bear Stearns had fallen, investors focused on Lehman; again, as confidence faded away, Lehman's ability to borrow money evaporated. This time, however, the Fed let Lehman go bankrupt, largely wiping out creditors. AIG was a less obvious candidate target. Despite large exposure to mortgage-backed securities through credit default swaps, no analysts seemed to think its solvency was truly in question. Overnight, however, without any fundamental changes, the markets decided that AIG might be at risk, and the fear became self-fulfilling. As with Lehman, the Fed chose not to protect creditors; because the \$85 billion loan was senior to existing creditors, senior debt was left trading at a 40% loss.

This decisive change in policy reflected a growing political movement in Washington to protect taxpayer funds after the Fannie Mae and Freddie Mac actions. In any case, though, the implications for creditors and bond investors were clear: RUN from all entities that might fail, even if they appear solvent. As in the emerging markets crisis of a decade ago, anyone who needed access to the credit markets to survive might lose access at any time.

As a result, creditors and uninsured depositors at all risky institutions pulled their funds - shifting deposits to Treasuries, moving prime brokerage accounts to the safest institutions (read JPMorgan), and cashing out of securities arranged with any risky institutions. The previously invincible Morgan Stanley and Goldman Sachs saw large jumps in their credit default swap rates. Washington Mutual and Wachovia vanished. LIBOR shot up and short-term US Treasury yields fell as banks stopped lending to each other and lent to the US government instead. The collapse of one money market fund (largely because of exposure to Lehman debt), and the pending collapse of more, sent the US Treasury into crisis mode.

At the same time, the credit market shock waves spread quickly throughout the world. In Europe, interbank loan rates and EURIBOR rates shot up, and banks from Bradford & Bingley to Fortis were nationalized. Further afield, Russia and Brazil each saw major disruptions in their interbank markets and Hong Kong experienced a (small) bank run. From late September, credit markets around the world were paralyzed by the fear that any leveraged financial institution might fail due to a lack of short-term credit. Self-fulfilling collapses can dominate credit markets during these periods of extreme lack of confidence.

The response

There are two ways to end a crisis in confidence in credit markets. The first is to let events unfold until so much deleveraging and so many defaults have occurred that entities no longer rely on external finance. The economy then effectively operates in a “financially autonomous” manner in which non-financial firms do not need credit. This is the path most emerging markets took in 1997-1998. Shunned by the world investment community, it took many years for credit markets to regenerate confidence in their worthiness as counterparties.

The second is to put a large balance sheet behind each entity that appears to be at risk, making it clear to creditors that they can once again safely lend to those counterparties without risk. This should restore confidence and soften the coming economic recession.

Governmental responses to the crisis were fitful, poorly planned, and abysmally presented to the public. The US government, to its credit, was the first to act, while European countries boasted they would be little affected. Still, though, Paulson and Bernanke had made the mistake of insisting right through the Lehman bankruptcy that the system was fundamentally sound. As a result, their rapid reversal and insistence that they needed \$700 billion for Paulson to spend however he wished was greeted coldly on Capitol Hill and in the media.

The initial Paulson Plan was designed to increase confidence in financial institutions by transferring their problematic mortgage-backed securities to the federal government's balance sheet. The plan had many problems, ranging from uncertainty over what price the government would pay for the assets to questions about whether it would be sufficient to stop the crisis of confidence. Our initial Baseline Scenario (<http://baselinescenario.com/baseline-080929/>), on September 29, recommended passing the plan and supplementing it with four additional measures: the first two were unlimited deposit insurance and an equity injection program for financial institutions.

After the Paulson Plan was passed on October 3, it was quickly overtaken by events. First the UK announced a bank recapitalization program; then, on October 13, it was joined by every major European country, most of which also announced loan guarantees for their banks. On October 14, the US followed suit with a bank recapitalization program, unlimited deposit insurance (for non-interest-bearing accounts), and guarantees of new senior debt. Only then was enough financial force applied for the crisis in the credit markets to begin to ease, with LIBOR finally falling and Treasury yields rising, although they are still a long way from historical levels.

Dangers for emerging markets

Although the US and Europe have grabbed most of the headlines, the most vulnerable countries in the current crisis are in emerging markets. Just like highly leveraged banks, highly leveraged countries - such as Iceland - are vulnerable to the flight of capital. Countries that got rich during the commodities boom are also highly vulnerable to a global recession.

The flight to safety is already destabilizing banks around the world. For companies that can get credit, the cost has skyrocketed. These financial sector tremors are sending shockwaves through emerging market economies. While wealthy nations can use their balance sheets to shore up banks, many other countries will find this impossible. Like Latin America in the 1980s, or emerging markets after 1997-98, the withdrawal of credit after a boom can lead to steep recessions and major internal disruptions.

Four sets of countries stand to lose.

1. The over-leveraged. With bank assets more than ten times its GDP, Iceland cannot protect its banks from a run. Other countries that borrowed heavily during the boom face a similar situation.
2. The commodity-dependent. Oil has already fallen below \$80 per barrel, and demand continues to fall. All other major commodities will fall for the same reasons. Commodity exporters facing sharply reduced revenues will need to cut spending and let their currencies depreciate.
3. The extremely poor. Sub-Saharan Africa, which was a beneficiary of the commodity boom, will be hit hard by the fall in commodity prices. At the same time, wealthy nations are likely to slash their foreign aid budgets. The net effect will be prolonged isolation from the global economy and increased inequality.
4. China. The global slowdown has already had a major impact on several sectors of China's manufacturing economy. The collapse in the Baltic Dry Index shows that demand for commodities and manufactured goods is plummeting. While China's economic influence will only grow in the long term, a global recession could cause a severe crimp in its growth.

The world's attention is currently focused on the G7. But crises in the rest of the world will inflict damage on G7 economies, increase global inequality, and create geo-political instability.

The current situation

Today, although it is by no means assured, it seems relatively likely that the financial panic will gradually ease and the successive collapse of many large banks in the US and Europe will not occur. However, the resumption of interbank lending alone will not be enough to reverse the downward trajectory of the real economy. Banks still need to deleverage in a major way and there are doubts about how much lending to the real economy will pick up. For example, mortgage rates in the US actually increased since the recapitalization plan was announced. In a worst case scenario, even some wealthy countries may not be able to absorb the losses sustained by their banks. The US will have to worry not just about its banks, but also about some insurance companies and quasi-financial companies such as GMAC, Ford, and GE.

Before the severe phase of the crisis began on September 15, the world was already facing an economic slowdown. The credit crisis of the past month and the lingering uncertainty seem certain to produce a global recession. In the face of uncertainty and higher credit costs, many spending and investment decisions will be put on hold. US and European consumption decline along with housing prices. With interest rates rising around the world, companies will pay down debt and reduce spending and investment plans. State and municipal governments will see lower tax revenues and cut spending. No country can rely on exports to provide much cushion, as growth and spending around the world have been affected by the flight from credit.

Recent economic indicators in the US show significant deterioration in the real economy. Because these indicators are from the entire month of September, they probably understate the effect of the acute credit crunch of the second half of the month, which we will not fully appreciate October data appear in the middle of November.

The damage will be particularly acute in emerging market economies. As the wealthiest nations protect their banking sectors, investors and lenders will be less likely to put their money in countries perceived as risky. Iceland is already facing default, either by its banking sector or by its government. After Iceland, the psychology of fear is likely to take over as creditors try to guess which country will be next, just as in 1997-98. Unless a country has a sufficient balance sheet and a very large amount of reserves, there will be selective defaults and large devaluations. It is hard to see how the IMF or anyone else can provide resources on a sufficient scale to make a difference. Some countries in Eastern Europe and Latin America are clearly showing signs of risk.

Falling commodity prices due to the coming recession will also hurt many exporting countries. Even Russia, with its large foreign currency reserves (and vast oil and gas reserves) may have a significant mismatch problem between short term liabilities and longer term assets. This is complicated further by large private sector debt in foreign currency. The government may be moving toward deciding which companies they will save. Hopefully, for the companies they do not support, it will be possible to have an orderly workout.

POLICY PROPOSALS

The G7

So far, the US response has included major increases in liquidity, the \$700 billion TARP program, the dedication of \$250 billion of that money to bank recapitalization, unlimited deposit insurance, guarantees of new senior bank debt, a program for the Fed to buy commercial paper directly, an interest rate cut, and the usage of Fannie and Freddie to buy \$40 billion per month of mortgage-related securities. Put together, this seems to have stopped the panic from worsening, although it certainly has not yet dissipated.

The US and other leading economic powers will have to continue to fight on several fronts for months if not years to come. We recommend the following program of steps:

1. Ensure sufficient capital. While the credit markets have reacted with cautious optimism to the initiatives announced last week, they must still be implemented successfully to have their desired impact. In the US, we recommend dedicating all \$700 billion of the TARP money for bank recapitalization, because \$250 billion may not be enough as a percentage of the assets involved. Purchasing mortgage-backed securities, if necessary, can be done by Fannie and Freddie. Treasury and the Fed will also need to find a meaningful way to encourage recipients of government capital to use the money to increase lending to the real economy while maintaining healthy capital levels.

2. Lower interest rates. The monetary authorities of these countries need to lower interest rates dramatically. Europe, Canada and the United States recently announced a coordinated 0.5 percent reduction in rates. This is a good start, but only a start. More will be needed, especially in Europe, where a historical focus on inflation fighting risks having the wrong effect. We are on course for a global recession, in which commodity prices will continue to fall and demand will remain weak. Inflation will be low and deflation is a risk.

3. Maintain liquidity. Monetary authorities need to remain committed to pumping liquidity into the financial system as long as credit markets and interbank lending remain weak. This should be promised for at least one year.

4. Fiscal stimulus. A major fiscal stimulus package is needed to help restore confidence back to the economy, and to encourage businesses not to postpone investment plans. All industrialized countries and most leading emerging markets should commit to a sizable fiscal expansion (at least 1 percent of GDP), structured so as to work within the local political environment, to offset the coming large decline in global demand. We would recommend cash payments and rebates to households and short term investment tax credits to businesses. This is a major way to help both homeowners and renters.

5. Contain the damage in housing. In a credit cycle-driven recession, housing prices can fall below their fundamental value just as they rose above it during the boom. Direct measures need to be taken to break the cycle of foreclosures and fire sales that is driving down prices and causing collateral damage to communities. The goal should not be to prop up housing prices at artificially high levels, but to find outcomes that are better for both homeowners and lenders than foreclosures, large write-offs, and blighted neighborhoods that harm all homeowners.

In addition, these nations also need to determine how their financial sectors should be regulated in the future. Most economists and policy makers agree that the crisis was aggravated by some failure of the regulatory system. While there are disagreements over what that failure was, it is certain that a new regulatory system will be built.

The international arena

The risk for the global financial system is the prospect of financial war. With his appeals for assistance turned down by European countries, Iceland's prime minister, Geir Haarde, said it is now "every country for itself." This smacks of the financial autarchy that characterized defaulters in the 1998 financial crisis in Asia, when countries changed the rule of law to benefit domestic constituents over foreigners.

Most of the time, financial war of this kind is painful and costly. It will lead to decades of lower international capital flows and could have other far-reaching effects on politics and even global peace. Unless the leading industrial countries take concerted action, there's a very real danger that we will all suffer more.

Highly leveraged countries are at risk of substantial private or public defaults. They need to assess their ability to cover their debts and decide which entities to protect and which to let fail. If necessary, they should commit to early Paris Club and London Club negotiations to restructure external national debts, and encourage private sector entities to begin negotiations with creditors.

Commodity exporters should let their currencies depreciate instead of spending reserves to slow down the adjustment process. Devaluation will be necessary to bring imports and exports back into balance.

The IMF can work with countries needing fiscal and balance of payments support. It is already signaling that it will reduce the detailed conditions for which it is so well known, and increase its flexibility. The G7 should support this, and make additional resources available. One widely expressed view is that currently the IMF could save only 2-1/2 Iceland's.

Finally, despite their domestic challenges, wealthy nations also need to do their part. We are going to recapitalize our banks and exercise greater control over them. We need to make sure they continue to deal with emerging market banks. We should also avoid cutting our aid to the world's extremely poor.

Conclusion: The need for coordination

We believe the US economy, along with many other parts of the world, is entering a recession precipitated by housing markets but primarily caused by an extreme loss of confidence in global credit markets. The withdrawal of credit undermines previously solvent institutions, causes unnecessary economic damage and constricts consumption and investment plans. Once confidence is gone, it is extremely difficult to restore. This is not a case of efficient markets, but a self-fulfilling series of credit panics causing significant economic damage.

The outlook for the global economy continues to worsen. While the US and several European countries are likely to go into recession, we are also likely to see substantially more defaults and credit panics in smaller countries and emerging markets. These

developments point out the urgent need for international coordination to limit the depth of the recession and avoid international financial warfare.

The last month has shown that partial and piecemeal actions will no longer work. Small steps announced frequently, especially by a single country acting alone, are neither credible nor powerful enough to make much of a difference. It's worth bringing a sufficient mass of economic power to bear, in a comprehensive program, to make an impact on the markets.

There is also a need to let prices move to a level supported by the market, which unfortunately means that wealth is likely to decline further. As we saw after the Asian crises, this can mean that stocks, bonds and other assets become very cheap, and it may take a long time for values to recover. Fiscal expansion and help to homeowners will reduce the pain from these losses, but it's important to be clear that the success of the program should not be measured by rising asset prices.

Finally, we are well past the days where even dramatic steps could have prevented a major recession. Under any scenario, we will see many personal, corporate and perhaps even national bankruptcies. Once the genie of panic and uncertainty is unleashed, it takes years to put it back in the bottle. What we need to do is prevent a chaotic collapse arising from incomplete policies, lack of credibility and international financial warfare.