



Economic Update

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Our most likely case has been that the “credit crunch inflection point” would occur before midyear 2008. However, the more aggressive Fed and government response to the Bear Stearns crisis raises the odds that this schedule might be accelerated. At the Fed and throughout the government, the policy to deal with the financial crisis has shifted from “we better be cautious” to “whatever it takes.” It is probable but not certain that the “credit crunch inflection point” has just occurred, well prior to (1) the eventual improvement in credit availability for new borrowers, (2) the eventual bottom to the recession, and (3) the low in house prices, which we expect in 2009. If so, the financial sector should transition from disorderly deleveraging to a choppy but somewhat more orderly deleveraging. The prospect of such a transition from disorderly deleveraging to more orderly deleveraging underpins our forecast for a short official recession followed by a choppy subpar recovery. We believe that a stretched out process of continued deleveraging will restrain the pace of economic growth even after the actual decline in the economy is over. We expect that the period of actual decline in the economy will be at the shorter end of the range of Postwar recessions, but that it should be followed by a choppy subpar recovery in the economy due to (1) the hangover from house price deflation, (2) a prolonged financial deleveraging, and (3) the one-time temporary nature of this year’s tax cuts.

In this financial crisis, there has been a contraction in the balance sheets of some vulnerable financial intermediaries while others have slowed their rate of growth or shifted away from newly issued loans which support economic expansion in order to absorb old loans onto their balance sheet or to limit their leverage in the context of major write-offs. The rational reluctance of financial intermediaries to take on additional risk during a period of financial stress is delaying the pass-through of a lower Federal funds rate to lower private sector interest rates. We expect these to fall, but only gradually. The crowding out of new loans to finance new economic activity as risk budgets are absorbed by old loans and write-offs cannot be reversed in an instant, given the high proportion of the core financial institutions that lost a significant portion of their net

worth. However, we believe that the Fed’s aggressive efforts to provide adequate liquidity in the financial system are a first step to mitigate these trends.

What does all of this mean to the markets? No one has a shorter-term time perspective than a hyperleveraged investor with one hour to meet a margin call, which has created opportunities for those with a longer-term perspective. Risk assets may remain depressed below fair value for a time as the deleveraging continues. Because the urgency to transact quickly is greater among the hyperleveraged investors than among unleveraged long-term investors, depressed prices are required to motivate unleveraged investors to buy.

The Treasury bond bull market has already occurred. We believe that the potential for further major declines in Treasury bond yields is limited, despite the prospect of continued economic weakness and further Fed easing. Our expectation of a secular neutral long-term trend in the bond market is strengthened by our expectation that this cycle’s low in Treasury bond yields will be in the same general area as last cycle’s low in Treasury bond yields. The cyclical low yield on ten-year Treasury bonds in 2008 is likely to be only slightly higher than the cyclical low yield of 3.07% intraday and 3.11% on a closing basis in June 2003, which we believe completed a 22-year decline in bond yields. Ten-year Treasury bond yields have already declined about 200 basis points from the double peak around 5.3% in both June 2006 and June 2007 to below 3.3% in March 2008. We believe that there are minimal prospects of significant further declines in this cycle. We expect annual budget deficits in the U.S. to approach if not reach one-half trillion dollars, which should definitively end the recent scarcity of Treasury securities.

What about the broader credit markets? The wide spreads of the yields on various bonds above Treasury yields reflects (1) “safety first” demand for Treasury securities, (2) forced and unforced liquidation of a variety of fixed income investments by hyperleveraged investors, and (3) a very disparate set of trends in the underlying credits in the context of a recession and credit crunch. The unwinding of hyperleveraged portfolios has led to the forced liquidation of both good

credits and dreadful credits. The result, we believe, has been to create favorable opportunities to accumulate high quality bonds as forced liquidation has made many of them relatively cheap at a time when two-year Treasury yields are near 1.6% and five-year Treasury yields are near 2.4%. However, the severe losses likely on weak credits issued at the peak of the credit cycle are fully deserved. Credit discipline collapsed at the crest of the credit cycle and severe losses on the worst credits are to be expected. Given our recession forecast, our initial preference is for high quality bonds, which are currently available at historically wide spreads to Treasury yields. We believe that diversified portfolios of high quality tax-exempt bonds offer favorable value relative to taxable bonds for long-term investors subject to high marginal tax rates, given the risks of a rise in maximum marginal tax rates after the election. This might be accompanied by higher tax rates on dividends and capital gains.

The stock market is a leading indicator and not a coincident indicator of economic activity. It usually declines late in an expansion and early in a recession as profit weakness is first anticipated and then announced. There is nearly always some theory why it is different this time and the Fed is “pushing on a string.” There are often several rounds of capitulation selling of both high risk and high quality assets. The market usually completes its decline late in a recession and starts to rise as conviction spreads that monetary policy is powerful and the markets start to discount future economic recovery.

A peculiarity of the stock market in this cycle has been that the high quality multinational mega cap stocks are favorably valued. Given the continuing credit crunch, the profit outlook for financial stocks remains uncertain and these stocks could remain volatile. Other than the financials, high quality mega cap stocks have shown only limited profit weakness so far in a context of continuing global expansion. This is due in part to favorable growth in foreign-source profits. Many high quality multinational non-financial stocks are now offering higher yields than Treasury bills and other money market investments and that should foster accumulation over the coming months by investors with a longer-term time perspective. We believe that demographic trends should eventually raise the scarcity value of those high quality equities that offer the prospect of rising dividends over the next decade or two. These same demographic trends that should raise the demand for relatively dependable and rising yields should do little

for speculative stocks, especially those vulnerable to continuing financial stress. We do expect a succession of negative economic news announcements for the next three to five months, but the stock market is a leading economic indicator that tends to anticipate economic fundamentals some months in advance.

The tone of Federal Reserve policy has changed. Until recently it was hesitant, gradual and process-oriented. More recently, it has become proactive in response to the severity of the credit crunch and emerging evidence of economic weakness. The Fed has recently shown creativity in developing new approaches to break the liquidity logjam. The Fed has sequentially loosened the conditions under which it will provide liquidity to the core financial institutions in the U.S. It has created new liquidity programs. It has increased the dollar size of existing programs. It has broadened the list of collateral eligible for its lending. In one program, it decided to give favorable lending terms not just on the best investment grade bonds, but also on securities that are just barely investment grade. It has made financing available to non-bank primary dealers at the discount rate. It has lengthened the period of discount window borrowing from 30 to 90 days. It has lowered the Federal funds rate 300 basis points from the peak, including a “baby steps” pattern of 25 and 25 basis points in the last two months of 2007 and then a “giant steps” pattern of 75, 50 and 75 basis points in the first quarter of 2008. It agreed to lend \$29 billion for ten years at the discount rate to fund illiquid securities of a troubled brokerage firm that it had never regulated. It has lent large sums in a variety of programs against the collateral of mortgage-related bonds and other bonds that the private sector had found difficult to finance.

During this credit crunch, there has been limited use of traditional discount window borrowing by banks due to the stigma associated with it. So on December 12, 2007 the Federal Reserve announced the Term Auction Facility (TAF) program. This new program provides banks with financing for a fixed term. Its maximum size was increased in stages to \$100 billion. The Fed also announced another \$100 billion available as repo financing.

On March 11, 2008 the Fed announced the Term Securities Lending Facility (TSLF) of a maximum of \$200 billion available for all 20 primary dealers in Treasury securities (including brokers, not just banks). The Fed broadened the list of securities eligible for this

program to include top-rated non-agency private label mortgage securities. Then it broadened the list again to include agency collateralized-mortgage obligations (CMOs) and AAA/aaa rated commercial mortgage backed securities (CMBS). This TSLF temporarily swaps Treasury securities—which are liquid and highly desired by clients of the primary dealers—in exchange for other securities that have become somewhat more difficult to finance during the credit crunch. It is a program well designed to improve liquidity within the core of the financial system.

The first TSLF auction was scheduled for March 27, 2008, but before it had taken place, Bear Stearns experienced intensified financial stress. The Fed responded in three ways to this phase of the crisis. First, it offered to lend \$30 billion (later cut to \$29 billion) on Bear Stearns' securities through a commercial bank, with the Fed rather than the commercial bank taking the potential risk of loss on these securities. That deal was substantially revised with the commercial bank exposed to the first \$1 billion of loss while the Fed is entitled to future gains, if any. Second, the Fed created a new Primary Dealer Credit Facility (PDCF), which facilitated the direct provision of Federal Reserve lending to major brokerage firms who were primary dealers. Third, the Fed narrowed the spread between the Federal funds rate and the discount rate from 50 basis points to 25 basis points, which increases the profitability to banks and brokers of borrowings at the discount rate at the discount window or via the new Primary Dealer Credit Facility.

The Fed's new \$200 billion Primary Dealer Credit Facility essentially extends the economics of discount window borrowing on a daily basis to all primary dealers including those that are not commercial banks (this includes several major brokerage firms). For the new program, the definition of eligible collateral against which the Fed will loan has been broadened to include "investment grade corporate securities, municipal securities, mortgage-backed securities, and asset-backed securities" except those that are not able to be priced by the clearing banks. Thus all 20 primary dealers can now easily obtain financing from the Fed for many investment grade bonds, not just the highest quality investment grade bonds. This should also help ease liquidity stresses. Although it will take some time for the credit crunch to ease, we are optimistic that the recent aggressive Fed actions will gradually ease the terms and availability of credit to the private sector over

the course of next year. If not, further actions by the Fed, the regulatory authorities and the Congress are likely.

We believe that the most likely outlook for the U.S. economy is for a shorter-than-normal recession followed by a subpar recovery. We expect a short period of actual economic decline this year within a more prolonged period of economic weakness. Much of the cyclical weakness from the inventory correction and decline in residential construction preceded the economic peak. In addition, the negative effects of house price deflation should act as a dragging anchor on consumption growth and economic growth for a long period of time even after an economic trough. The U.S. economy is probably facing an extended period of subpar growth. Financial deleveraging and house price deflation should remain an important economic drag well after the economic trough.

The credit crunch has now persisted for about eight months, with growing indications that it may have already reached its climactic stage of accelerated deleveraging. We date the onset of the credit crunch to the BNP Paribas announcement on August 9, 2007 (rather than to the earlier hedge fund stresses). The credit crunch in the U.S., Canada, U.K. and Europe has occurred in the context of a global liquidity glut. As a result, financial firms were able to quickly obtain new equity to replace a portion of what they had lost earlier in the crunch, prior to the emergence of new losses. Earlier in the credit crunch, sovereign wealth funds provided new equity capital quickly to core financial institutions. The very serious credit crunch of 2007 and 2008 would have been much worse if it had not been for the global liquidity glut of investable funds, which fostered an influx of new equity capital as the credit crunch intensified. It might have been much more difficult to avoid a self-feeding financial contagion during the Bear Stearns crisis if this new equity had not already been raised by core financial institutions.

The terms for the availability of credit to finance new economic activity remain tight. A major reason for this is that the risk budgets of major financial institutions approached a ceiling as (1) write-offs have continued, (2) old loans were either retained (LBOs) or brought onto the balance sheet (SIVs), and (3) new areas of vulnerability surfaced. However, in contrast to the early phases of the credit crunch, the location of financial risk is now more apparent to lenders, borrowers and

regulators and the intensity of official support has increased substantially. The unwinding of numerous hyperleveraged portfolios is painful, but it is now occurring in a context when confidence in core financial institutions and the willingness of the monetary authorities to act is beginning to recover. The short-term effect of risk budget constraints among core financial institutions should contribute to economic weakness and new episodes of financial stress among vulnerable borrowers near term. However, we expect these constraints to ease gradually over time, as the inventory of potential losses is surfaced and financial confidence slowly returns.

The reason that we shifted in January 2008 to the view that a recession was more likely than a growth recession was the tightening of credit terms for new economic activity. High energy and food prices are an additional shock to real disposable personal income, weakening the cyclical prospects for consumer spending at a time when housing activity continued to drop sharply. The U.S. has been in a housing recession for two years. Residential construction recorded declines for eight quarters and the first and second quarters of 2008 should be the ninth and tenth quarters of decline. The downward momentum in residential construction should ease by late summer, not so much due to positive developments, but rather because by then the level should be extremely depressed. However, an accumulation of evidence is indicating that nonresidential construction has begun to weaken so both sectors should be declining together in the coming months. In addition, domestic capital spending should be restrained by the emerging weakness in domestic profits.

We believe that the decline in house prices is a powerful economic event, which should persist into 2009. We believe that the range of credible estimates for the peak-to-trough decline in the nationwide Case-Shiller house price index is centered in the 20% to 30% range with steeper declines likely in the more vulnerable markets. The nationwide Case-Shiller house price index has already recorded a double-digit decline. The Case-Shiller measure is most relevant because the alternative OFHEO measure is based on conforming mortgages and does not significantly reflect the stresses in houses which have been financed by subprime, Alt-A and prime jumbo mortgages. This is a major deficiency in the current context. Because of monetary and fiscal stimulus underway plus the likelihood of further

government actions to aid housing, we lean towards the less pessimistic end of the range of estimated home price declines, which would be severe enough. We believe that the house price decline has passed the midpoint but should persist into 2009, given the substantial excess inventory of vacant homes and condominiums.

Monetary policy in the U.S. was initially based on too sanguine a view of the economy and financial stresses. More recently, however, monetary policy has become more aggressive and proactive. One of the ways that Federal Reserve easing contributes to the calming of a credit crunch and creates preconditions for a recovery from recession is to create a steep yield curve. A steep yield curve increases the marginal profitability to financial intermediaries of expanding credit. That is a necessary but not sufficient condition to strengthening the credit expansion process. It is also necessary for risk aversion at core financial institutions to calm.

The credit crunch has been so severe that we believe that the Fed made the correct decision to accelerate its easing in 2008, but doing so initially exacerbated both commodity price strength and dollar weakness. The prevailing view at the Fed has been that the inflation challenge from high commodity prices would prove temporary due to a weak economy and that inflation expectations were “well anchored.” We believe that Fed officials are correct to believe that the inflation pressures are unlikely to become embedded in wage inflation in a weak U.S. labor market. In contrast, inflation expectations within the markets increased in early 2008—gold made new highs, many commodity prices made new highs, the dollar made new lows and the TIPS spread widened. We believe that economic weakness in the U.S. and, to a lesser extent, abroad, should eventually stall this upward pressure on both commodity prices and inflation expectations. Nonetheless, worldwide inflation in necessities is likely to contribute to the global growth slowdown we expect in 2008.

Our view is that we are in the final phase of the multiyear dollar decline against other industrial currencies. There is some risk that the final few months could be intense as has occurred before at the end of major multiyear currency trends. The recent dollar weakness against other industrial currencies is a natural result of the sharp drop in U.S. real interest rates (net of inflation) relative to other industrial countries given the rapid drop in the actual and expected Federal funds rate.

However, the outline of an eventual multiyear low in the dollar relative to industrial currencies is starting to emerge. There has already been a major improvement in the non-oil trade deficit as exports continue to grow even as the growth of imports and consumption slows in the U.S. in response to weaker real income growth and declining house prices. U.S. consumption growth is likely to remain somewhat sluggish for an extended period of time in response to lower house prices and a lower capacity for rapid consumer credit expansion. We expect that dollar weakness in 2008 against industrial currencies will be followed by a rebound in 2009 as growth slows abroad and the markets discount a post-recession rebound in interest rates in the U.S. For the RMB and other currencies of non-Japanese Asia, in

contrast, we expect a sustained multiyear uptrend against the industrial currencies.

Our most likely outlook for the U.S. economy is for a short recession with a peak-to-trough decline in economic activity at the lower end of the range of Postwar recessions followed by subpar recovery at a less robust pace than most Postwar recoveries. A substantial portion of this cycle's economic weakness is likely to fall either before or after the period of actual decline in the overall economy. Looking ahead, much of the negative effect of the collateral deflation in housing on the growth rate of consumption spending should persist past the period of actual decline in overall economic activity, helping to generate a choppy subpar recovery.



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