WACHOVIA
ECONOMICS GROUP

SPECIAL COMMENTARY

April 09, 2009

State of the Global Economy: The Intersection of Economy and Credit*

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I. "What is the current state of the global economy?"

Global economic growth averaged nearly five percent per annum from 2004 to 2007, the strongest four-year period of growth in decades (Figure 1). However, real GDP growth rates slowed in most countries in the first half of 2008, and it appears that many major economies have now slipped into recession due in part to the effects of the global credit crunch. Industrial production in the OECD has dropped off sharply (Figure 2). Economic growth in the developing world has also slowed this year.

Figure 1

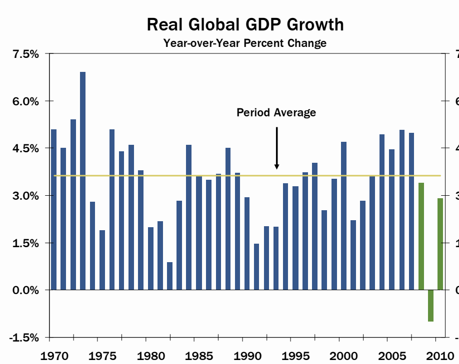
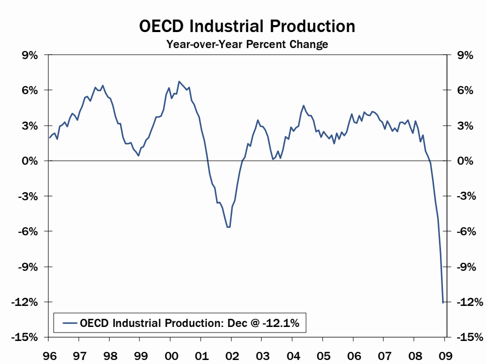


Figure 2



Source: IMF, OECD and Wachovia

Recession continues to be the theme for the U.S. economy as well. Coincident indicators such as employment and industrial production have fallen steeply since last autumn, and the unemployment rate has moved up over eight percent. The deteriorating job market, considerable losses of equity and housing wealth, and tight lending conditions have weighed down consumer sentiment and spending. In addition, businesses have cut back capital outlays in response to the softening outlook for sales as well as the difficulty of obtaining credit.

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* As presented at the Credits Markets Symposium, Federal Reserve Bank of Richmond Conference, April 2, 2009. Charlotte, NC. Special thanks to Kim Whelan and Adam York for their assistance.
Some readers may wish greater detail or alternatives on some of the issues addressed here, much of which has been addressed in our recent commentary. These pieces are available on our website.

Moreover, foreign demand for U.S. goods and services has slumped over the last six months as our major trading partners have fallen into recession, and our estimates of global growth have turned negative for the first time since records began (Figure 1 – forecast in green).[1] In all, U.S. real gross domestic product declined slightly in the third quarter of 2008, and that decline steepened considerably in the fourth quarter. The sharp contraction in economic activity appears to have continued into the first part of this year.

As for inflation, the substantial declines in the prices of energy and other commodities last year and the growing margin of economic slack have contributed to a substantial lessening of inflation pressures around the world. Indeed, overall consumer price inflation compared to a year ago is flat. Core inflation, which excludes the direct effects of food and energy prices, also has declined significantly.

In our view, the economic slowdown was driven by the collapse of the global credit boom and the ensuing financial crisis, which has affected asset values, credit conditions and consumer & business confidence around the world. The immediate trigger of the crisis was the end of housing boom in the United States and other countries and the associated problems in mortgage markets, notably the collapse of the U.S. subprime mortgage market. Conditions in housing and mortgage markets have proved to be a serious drag on the broader economy both directly, through their impact on residential construction and related industries and on household wealth, and indirectly, through the effects of rising mortgage delinquencies on the health of financial institutions.

[1] While there is no firm cutoff or formal arbiter of global recessions, a generally accepted threshold is global growth below three percent per year.

II. "What should we look for as a signal for an economic bottom and/or turnaround?"

Four indicators, three non-financial and one financial, provide a signal for the economic bottom and turnaround: initial claims for unemployment insurance, the Institute for Supply Management's manufacturing index, new orders for capital goods and money supply growth (M2). These are outlined further in Table 1.

Table 1

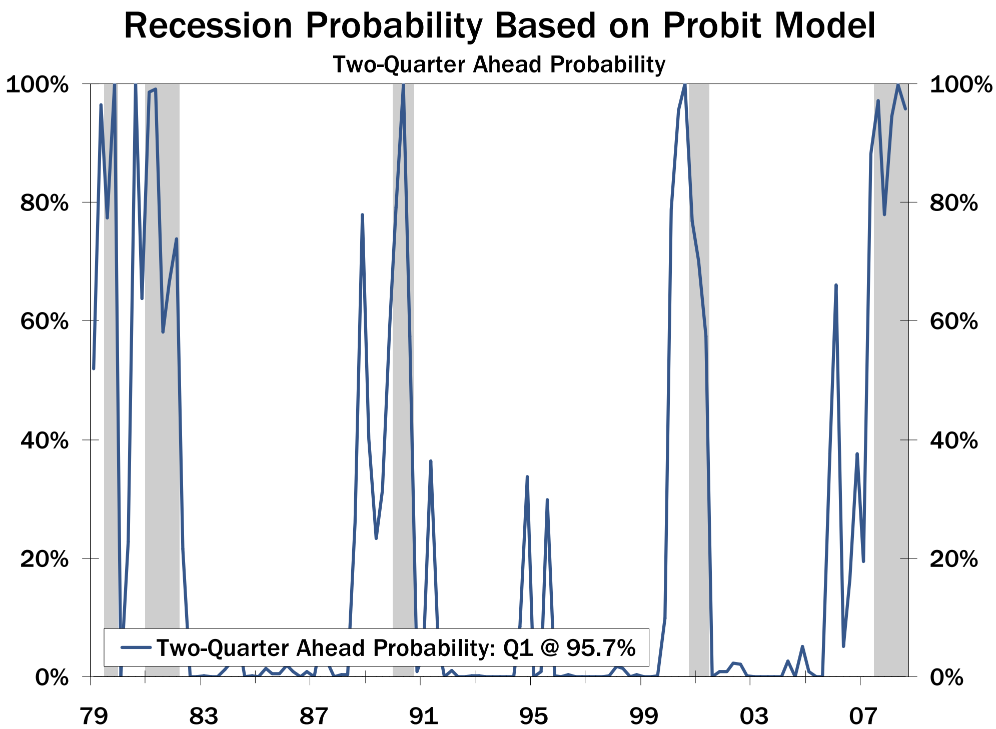
Signs of a Recovery: Indicators to Watch	
Initial Claims	▪ This indicator reports the number of individuals claiming unemployment insurance for the first time in a given week. ▪ Data are released each Thursday for the previous week. ▪ First-time jobless claims are approaching 700,000 and show little sign of relief. We would expect to see claims drop back towards 500,000 before payroll job losses diminish meaningfully.
ISM Manufacturing Index	▪ This is a survey of supply managers at manufacturing firms across the country, and the index is computed such that a reading of 50 is considered break-even. ▪ It is released near the first of the month for the previous month. ▪ The survey is currently in the mid 30s, having ticked-up off of its lows. We expect the index to remain below 50 for sometime, but would be encouraged by any meaningful move higher.
Capital Goods Orders	▪ New orders for capital goods, ex-aircraft represent business orders for capital equipment. ▪ Reported twice each month, data come first in the Durable Goods report and are subsequently revised in the Factory Orders report. ▪ This series moved higher in February but previously sustained losses are still substantial—more than 40 percent at a 3-month annual rate. Real gains would signal renewed confidence from businesses.
Money Supply	▪ The lone monetary indicator in our list, M2 represents money in circulation, including checkable deposits and small time-deposits. ▪ Data are released each Thursday as part of the H.6 report. ▪ Rising M2 would indicate support for future economic growth and the potential for a coming recovery. Loose monetary policy will continue to push M2 higher.

Source: Wachovia

So far we do not see much hope for a quick recovery in our key indicators. Beyond individual indicators we use a probit model to estimate the probability of a recession during the next two quarters.[2] Results from our model are illustrated in Figure 3 and suggest the probability of recession is almost 100 percent for the first and second quarters of this year based upon data available through the fourth quarter of 2008.

[2]John Silvia, Sam Bullard and Huiwen Lai, "Forecasting U.S. Recessions with Probit Stepwise Regression Models," *Business Economics*, January 2008.

Figure 3



Source: Wachovia

Housing: Problems are bigger than Just the Business Cycle

Beyond the traditional cyclical indicators, this cycle has depended deeply on the developments in the housing sector. As a result, we continue to watch the sector carefully for signs of improvement that may help the overall economy improve. Unfortunately, improvement in the sector is as dependent on economic improvement as the economy is on the sector—that is, housing and the broader economy are codependent. The ongoing changes in the housing sector stretch far beyond cyclical concerns. The massive dislocation in housing has spurred long-needed structural adjustment. Disequilibrium in both credit and housing markets is very apparent when we examine recent home price/delinquency behavior.

The combination of falling prices and low mortgage rates have driven affordability levels sky high, but problems clearly remain in the housing market (Figure 4). One of our primary concerns continues to be reasonable access to mortgage credit. Lending standards continued to tighten into the first quarter despite several straight quarters of tightening across credit quality (Figure 5). Until credit becomes more widely available it will be difficult to see a sustained recovery in housing.

Figure 4

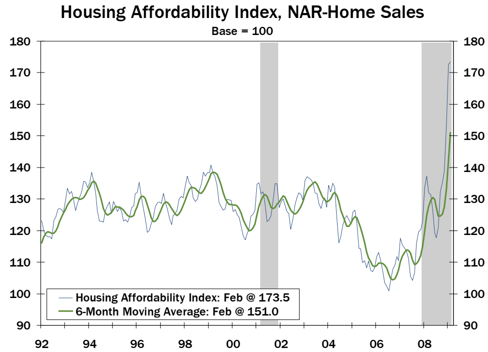
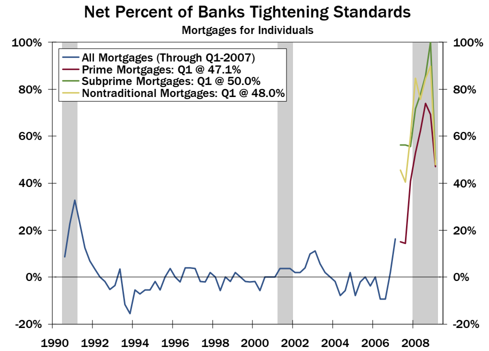


Figure 5



Source: **National Association of Realtors, Federal Reserve Board and Wachovia**

III. "What will be the likely impact of fiscal and monetary policies around the globe?"

Fiscal Stimulus: Help Today but Burden Tomorrow?

In an effort to revive the ailing economy, various fiscal stimulus programs have been implemented which should provide a boost to growth, at least in the short run. One argument for the flexibility of U.S. fiscal policy to adopt a large stimulus with associated large fiscal deficits is that the current U.S. federal debt to GDP ratio is modest compared to nations such as Japan. We are not convinced that this is effective reassurance primarily for two reasons. First, we depend on foreign investors for much of the financing; nearly 60 percent of marketable debt is currently held by foreigners. Despite a recent up-tick in domestic savings we will still need foreigners to foot a considerable portion of the coming bill. Second, future deficits/debts are expected to rise quickly due to increased entitlement spending associated with the retirement of the baby boom generation. In our opinion, the current low ratio of debt to GDP is a trap door which could lead to a much heavier burden on future generations.

Even with the help of fiscal stimulus, we believe real GDP will decline by two percent for all of 2009 with consumption and business investment remaining very weak. Why? To answer that question we turn to the work of Robert Lucas, the 1995 Nobel laureate for economics. The Lucas Critique asserted that it is naïve to try to predict the effects of a change in economic policy entirely on the basis of relationships observed in historical data, especially highly aggregated historical data.[3] Lucas emphasized that individual behavior can change in reaction to policy initiatives, which could render those initiatives ineffective. We had a real-life example of the Lucas Critique last year with the Economic Stimulus Act of 2008. While the stimulus did lead to a brief pick-up in retail spending, it did not generate an ongoing economic recovery. Certainly there were other factors involved, but the basic lesson was that such "rebates" were simply handouts that did not alter individual incentives to work, save or invest. In the short run, policy endeavors may appear effective at the macro level, but without any change in individual incentives, there is no permanent stimulus to the economy.

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[3] Lucas, Robert (1976). "Econometric Policy Evaluation: A Critique." *Carnegie-Rochester Conference Series on Public Policy* 1:19-46.

Implications for the Obama Administration

What implications does the Lucas Critique have for economic policy in the Obama administration? Although increased infrastructure spending should stimulate the economy, at least in theory, potential tax increases, which were part of President Obama's campaign, could carry significant negative microeconomic incentives that could largely offset the macro boost from higher government spending. Not only could higher taxes on dividends, capital gains and higher-income individuals provide a disincentive to work, but they could also induce households to pursue a variety of tax-avoidance schemes that provide little macroeconomic benefit. Historically, tax increases have tended to reduce the expected after-tax returns to saving and investment in the United States and provide incentives for production to move abroad.

In addition, a more interventionist government in terms of direct government allocation of real economic resources could alter private risk/reward calculations. If these allocations did not reflect the careful economic calculation of costs and benefits, such political interventions could lead to economic outcomes that are inconsistent with those achieved in a purely private calculation of returns. For example, tougher regulation of financial firms, which would increase the cost of capital for borrowers, suggests that the price and availability of credit will be limited relative to previous expansions. In sum, the microeconomic implications of proposed policy initiatives could be more significant in their impact on the economy and investors than the broad aggregate macroeconomic stimulus programs that are frequently the focus of conventional analysis. This could lead to much less-than-expected real economic growth. What little economic growth the U.S. experienced in 2008 was made possible by strong global growth, which has since faltered and will not likely contribute this year. Given this economic background, we have seen a rapid rise in federal spending and a rapid rise in the federal deficit since the recession began, and as of yet little progress in turning around the economy (Figure 6 & Figure 7).

Figure 6

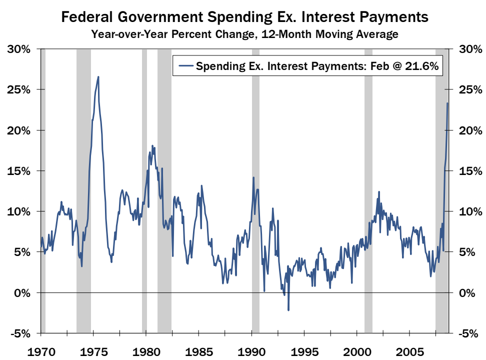
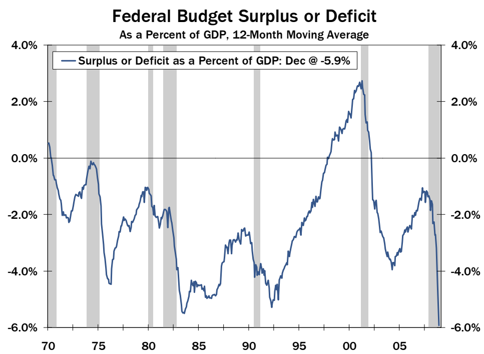


Figure 7



Source: U.S Department of the Treasury and Wachovia

Room for Global Stimulus?

The proposed extension of U.S. fiscal stimulus to the world has not been warmly received.[4] German Chancellor Angela Merkel presents a view against global stimulus, particularly for her own Germany. Germany, she says is an over-indebted, export-oriented economy with an aging, shrinking population. It cannot boost consumption at the expense of exports. "The German economy is very reliant on

[4] "Czech Premier Slams Obama Stimulus Plan," *Wall Street Journal,* March 30, 2009.

exports, and this is not something you can change in two years," she said. "It is not something we even want to change." Chancellor Merkel goes on to illustrate the contrast across the globe: "China would not even have to raise debt in order to boost demand," she says, pointing to the country's vast currency reserves. "Its growth potential is much higher than Germany's."[5,6]

Members of the European Monetary Union are clearly limited by the flexibility of the Financial Stability Pact. Meanwhile, estimates of discretionary fiscal policy stimulus by some analysts suggest policy actions of less than one percent for France and the United Kingdom and just over one percent for Germany during the 2008-2010 period. Meanwhile, China, Korea and the United Sates are estimated to provide stimulus of over 1.5 percent for the same time period.[7,8]

Monetary Policy: A Policeman on One Corner, Crime on Another

At the short end of the curve, rates are still driven by the Federal Reserve. Short term interest rates in general will remain low for an extended period of time. In December, 2008 the FOMC brought its target for the federal funds rate to a historically low range of 0 to 1/4 percent, where it remains today. The FOMC also has stated that economic conditions are likely to warrant exceptionally low levels of the federal funds rate for some time.

Figure 8

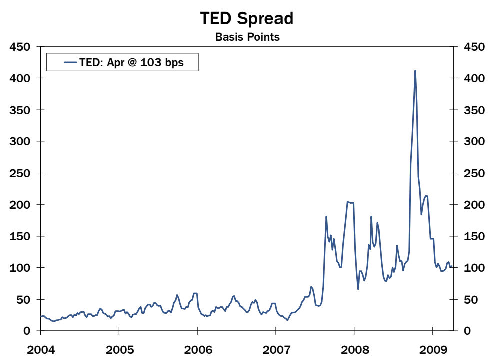
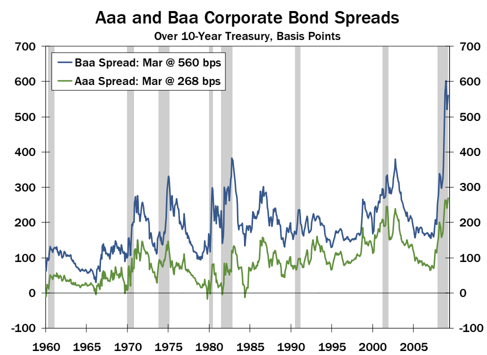


Figure 9



Source: Federal Reserve Board and Wachovia

Policy progress appears in the decline in the TED spread and other short-term liquidity spreads such as the LIBOR to federal funds rate spread (Figure 8). But as a general solution for liquidity, markets emulate the pattern of police patrols and crime. At each corner where a policeman is stationed, we witness a decline in crime. In every market where the Fed focuses its liquidity facilities, such as short-term instruments as well as ABS and MBS, liquidity premiums decline. However, wherever the Fed is not engaged (no market policeman), such as corporate bonds or CMBS, spreads have not returned to normal levels (Figure 9 & Figure 10, Page 9). Investment grade bond issuance has benefited as some investors seek higher yields while other investors engage in flight to quality thereby driving down long-term

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[5] Interview: Angela Merkel, by Bertrand Benoit, Quentin Peel and Chris Bryant, *Financial Times*, March 27, 2009.

[6] These comments, as well as the presentation on which this paper is based, were made prior to the G20 London Summit, at which similar sentiments which opposed further fiscal stimulus were echoed, alongside French President Nicolas Sarkozy.

[7] Since the presentation which spawned this paper, the G20 leaders agreed on $1.1 trillion to boost IMF reserves and support world trade, among other commitments.

[8] "Global Leading Indicators: Europe" *Lombard Street Research*, March, 2009.

Treasury rates. Fed purchases have also kept Treasury rates low for now. However, we are concerned about the long term implications of such buying, such as higher inflation and a weaker dollar. Risk-aversion remains very strong. High-yield issuance remains minimal with wide yield spreads over Treasuries.

Where There is a Policeman

In the fall of 2008, after the well documented failures of organizations such as Fannie Mae, Freddie Mac, Lehman Brothers, the near collapse of AIG, losses at a prominent money market fund surfaced and credit markets froze solid as confidence evaporated virtually overnight. It quickly became apparent that more needed to be done to stabilize financial markets than ordinary monetary policy could provide. To support housing markets and economic activity more broadly, and to improve mortgage market functioning, the Federal Reserve has begun to purchase large amounts of agency debt and agency mortgage-backed securities. The Fed also established new lending facilities to support the functioning of the commercial paper market and to ease pressures on money market mutual funds. Looking ahead, an effort to restart securitization markets to support the extension of credit to consumers and small businesses, the Fed joined with the Treasury to announce the Term Asset-Backed Securities Loan Facility (TALF). While the TALF has begun extending loans, we expect it to ramp up in coming months.

Strains in short-term funding markets have eased notably since the fall and the London Interbank Offered Rate (Libor)—upon which borrowing costs for many households and businesses are based—initially declined with Fed action. The declines have since stalled and we remain unconvinced that borrowing costs will return to their previous lows in the foreseeable future. Conditions in the commercial paper market also have improved, even for lower-rated borrowers, and the sharp outflows from money market mutual funds seen in September have been replaced by modest inflows.

However, as President Plosser of the Philadelphia Federal Reserve Bank questioned, "What is the exit strategy?"[9] Unwinding positions in long-maturity assets at market prices could generate countervailing political pressure from interest groups—mortgage backed and asset-backed securities—to prevent such unwinding and thereby effectively maintain above-market pricing (a subsidy) to such lending.

On the Other Corner

However, financial markets have evidenced only modest improvement in credit spreads and credit supply at the long end. Benchmark 10-year Treasury yield has drifted upward since the start of this year, despite outright monetization of the debt by the Federal Reserve. In the credit sphere, the recession and poor earnings continue to limit issuance in the face of a skeptical market buyer. As a result, we have seen very little improvement in bond spreads over Treasuries. Over the next three months we expect very little improvement. The Fed has certainly been helpful in areas such as mortgage backed securities, where it has been a direct buyer, but such help has not spread much wider.

Financial fundamentals remain an issue for bankers and regulators. There was a rapid rise in credit spreads for both 5 year and 10 year AAA CMBS associated with the Bear Stearns collapse by mid-2008 and then a sharp jump with the Lehman Brothers collapse in September of last year (Figure 10). For both policymakers and bankers, the break in spreads during last year presents an interesting problem. The

[9] Charles Plosser, Financial Regulatory Reform, Chicago Booth School of Business, March 31, 2009.

break is significant in both size and duration, suggesting that the market equilibrium spread is unlikely to return to levels common before the break. In this case, owners of paper issued between 2005 and mid-2007 would be permanently at a loss. In economics we would consider the market equilibrium pricing of the earlier period as unstable, made possible only by the perceptions of low risk and high liquidity prevalent in the market at that time. With the destruction of these perceptions the market equilibrium of the 2005 to mid-2007 was lost, and is unlikely to return. As of now, many markets are searching for a new equilibrium for pricing and issuance.

The current recession marks the end of the era of abundant and cheap credit, just as the 1973-1975 recession marked the end of the era of abundant and cheap energy. Bankers and policymakers are quickly adjusting to this new reality. With the securitization market still largely frozen, banks will likely continue to closely scrutinize anything they add to their balance sheets.

Scrutiny is not unwarranted considering the rapid deterioration in the economy and company prospects and since the lack of scrutiny was arguably a major contributing factor in the meltdown. A significant slide in corporate profits continues as profit growth has broken far below its trend value in a pattern similar to the weakness in profits of the 2001 recession. Weaker profits are another issue for bankers and regulators (Figure 11). Weak profits suggest weak business credit and thereby higher delinquencies and eventually defaults. For the bond markets, weaker profits have historically been associated with weaker high-yield bond performance. Despite the weaker economic outlook, we believe risk premiums throughout the bond market are attractive compared to the "rich" Treasury sector, despite their decline from last fall's peak. Sizable yield premiums on an array of higher quality taxable and tax-exempt securities should provide an alternative to Treasuries for many investors. However, credit markets are still searching for a new balance between risk and reward, and one will not be found overnight.

Figure 10

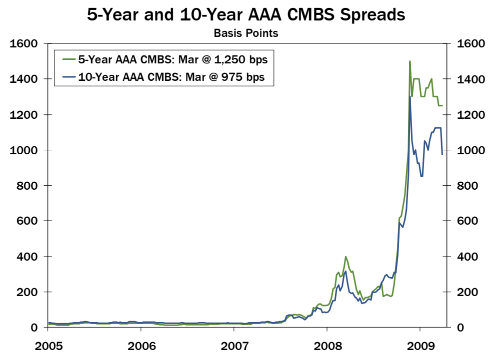
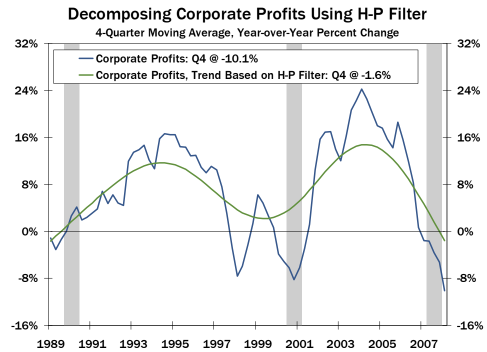


Figure 11



Source: Wachovia Securities and Wachovia

IV. Who is likely to lead the Economy out of Recession?[10]

The Final Challenge: "Three Devices of Such Lethal Cunning"

-Professor Henry Jones, *Indiana Jones and the Last Crusade*

[10] For more detail on individual countries see Jay H. Bryson and Tim Quinlan, "*Global Chartbook*," March 2009.

Capital Flows, Interest Rates and the Dollar

As Professor Jones explained the final challenge to his son Indiana, so too the global economic recovery faces the challenge of balancing capital flows, interest rate and dollar movements to achieve the Holy Grail of economic recovery. Looking forward, our outlook is defined by the nature of America's credit cycle which we believe will dictate the pace and character of the economic recovery. However, the global rebalancing movement will require changes in capital flows, export and domestic demand trends among a number of countries.[11]

Interest rates, inflation and exchange rates represent three economic prices that influence each other's behavior. The influence works in all directions. As we saw in the Jimmy Carter era, rising inflation was accompanied by rising interest rates and a declining dollar. In contrast, in the early 1980s we saw a rising dollar exchange rate accompanied by falling inflation and interest rates.

Today, the U.S. represents a country with a current account deficit that puts downward pressure on the currency over time (Figure 12 & Figure 13). This pressure is offset in the short run by capital inflows from surplus countries such as China, Japan and the OPEC nations.

Looking ahead, the persistence of large U.S. fiscal deficits may generate financing concerns, as acknowledged by Chinese Premier Wen Jiabao during the World Economic Forum in Davos. Financing concerns will feed into investor concerns of inflation and currency depreciation.

Figure 12

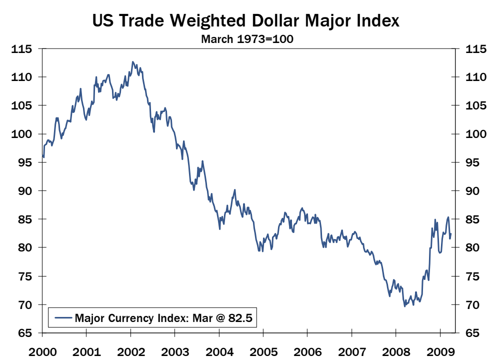
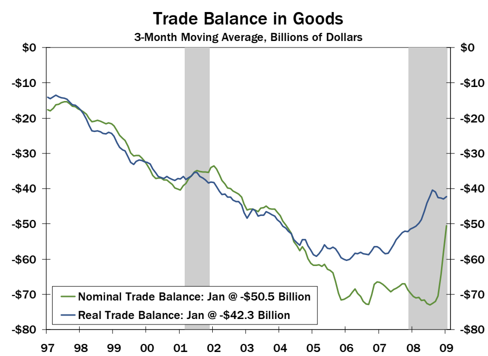


Figure 13



Source: Federal Reserve Board, U.S. Department of Commerce and Wachovia

Over the intermediate and long term we remain concerned about projections for rising U.S. fiscal deficits and inflation expectations. We are also concerned that anti-China/trade rhetoric will dictate rising interest rates that may quickly cut off the U.S. recovery. Actions towards protectionism could cut short the recoveries of China, India and Brazil by limiting their export growth, which is fundamental to their economies. Assuming, as we do, that cooler heads will prevail, leading the global economy out of recession will be the United States, China, India and Brazil. Quick and large policy stimulus will prompt a more rapid recovery in these countries. Moreover, India, China and Brazil benefit from secular growth momentum. The Euro community, ex-Germany, will remain weak as demographics and a relatively inflexible labor force inhibit competition at the global level. Russian and Mid-east economic recovery will reflect the recovery of commodity prices.

[11] For example see the essays of Steve Roach of Morgan Stanley such as *Same Old, Same Old*, March 10, 2009

Summary: Putting the Recovery in Perspective

The economy's dependence on credit alters our view of the pattern of this recession, and the eventual recovery. Both will differ in breadth and magnitude compared to previous recessions and recoveries. Two forces are worth noting about the credit outlook. First, the current focus on risk avoidance dictates a deleveraging of the American financial system, with particular emphasis on the consumer on the demand side and the banking system on the supply side. [12] The consumer will find credit much more difficult to obtain, and banks, on the supply side, will experience much slower growth in loan portfolios. Lending standards and collateral requirements have been raised to the point where they will not be able to facilitate a quick economic recovery. Second, there is also a trend toward a more conservative balance of risk-taking relative to any given expectation of reward. Over the past few months we have already witnessed significant declines in the federal funds rate and Treasury yields, but private-sector borrowing rates, other than mortgages which reflect purchases by the Fed, have not yet receded.

Prior U.S. economic expansions were characterized by rapid growth in the global supply of credit to the American consumer, businesses and government. This global supply enabled a rapid expansion in consumption of housing, autos and other durable goods relative to historical trend. Meanwhile, household demand for credit was boosted by expectations of home price appreciation and the ability to finance purchases through home equity loans. However, the credit environment of the next few years will be far different from the past boom cycles. We will have growth, but such growth is likely to fall short of the expectations of consumers and the dreams of policymakers.

[12] John E. Silvia and Adam G. York. *The Changing Nature of Saving*, April 01, 2009.

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