



## Economics/Strategy

### Global

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# Global Economic Outlook and Strategy

- **Strong policy intervention by industrial governments appears to have contained intensifying financial stress in the global financial system.**
- **But the global economic outlook has deteriorated sharply in response to heightened financial volatility and asset price declines.**
- **A broad reduction in global risk appetite has weighed on emerging markets, exposing new vulnerabilities.**
- **We now expect a global recession in coming quarters, with protracted economic contractions in the United States and the United Kingdom.**

Figure 1. Currency and Interest Rate Forecasts (End of Period, Unless Specified), as of October 23, 2008

	Oct. 22, 2008	4Q 08 Forecast	1Q 09 Forecast	2Q 09 Forecast	3Q 09 Forecast
United States: Federal Funds	1.50	1.00	1.00	1.00	1.00
10-Yr. Treasuries (Period Average)	3.65	3.50	3.60	3.75	3.90
Euro Area: US\$/€	1.29	1.30	1.27	1.25	1.22
Euro Repo Rate	3.75	2.75	2.25	2.00	2.00
10-Yr. Bunds (Period Average)	3.80	4.00	3.90	3.80	3.90
Japan: Yen/US\$	97	100	100	100	103
Call Money	0.50	0.50	0.50	0.50	0.50
10-Yr. JGB (Period Average)	1.51	1.50	1.50	1.55	1.60

Source: Citi.

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**Figure 2. Key Policy Events, 24 Oct – 30 Nov 08**

Date	Country	Event
Upcoming	United Kingdom	Pre Budget Report – Date to be announced
Oct 24	Malaysia	Central Bank of Malaysia <i>Monetary Policy Statement</i>
Oct 26	Europe	Clocks moved <i>back</i> one hour
Oct 27	Israel	Bank of Israel Interest Rate Announcement
Oct 28	Slovakia	National Bank of Slovakia <i>Monetary Policy Report and Medium Term Forecast</i>
Oct 28/29	Poland	National Bank of Poland Monetary Policy Council Meeting
Oct 28/29	United States	FOMC Meeting
Oct 28/29	Brazil	Central Bank of Brazil Monetary Policy Meeting
Oct 29	Norway	Norges Bank Interest Rate Announcement
Oct 30	Romania	National Bank of Romania Board Meeting
Oct 31	Japan	Bank of Japan Monetary Policy Meeting
Nov 2	North America	Clocks moved <i>back</i> one hour
Nov 3/4	European Union	Eurogroup and ECOFIN Meetings of EU Finance Ministers (Luxembourg)
Nov 4	Australia	Reserve Bank of Australia (RBA) Board Meeting
Nov 4	United States	Presidential Election, Congressional Elections
Nov 5/6	United Kingdom	Bank of England Monetary Policy Committee Meeting
Nov 6	Indonesia	Bank Indonesia Monetary Policy Meeting
Nov 6	Czech Republic	Czech National Bank Monetary Policy Meeting
Nov 6	Euro Area	ECB Monetary Policy Meeting
Nov 7	Korea	Bank of Korea Monetary Policy Meeting
Nov 10	Australia	Reserve Bank of Australia (RBA) <i>Statement on Monetary Policy</i>
Nov 12	New Zealand	Reserve Bank of New Zealand <i>Financial Stability Report</i>
Nov 12	United Kingdom	Bank of England <i>Inflation Report</i>
Nov 13	Chile	Central Bank of Chile Monetary Policy Meeting
Nov 13	Peru	Central Reserve Bank of Peru Monetary Policy Announcement
Nov 15	G-20	Financial Summit on International Financial System (Washington, DC)
Nov 19	Turkey	Central Bank of the Republic of Turkey Monetary Policy Meeting
Nov 20	Philippines	Central Bank of the Philippines Monetary Board Meeting
Nov 20-21	Japan	Bank of Japan Monetary Policy Meeting
Nov 21	European Union	ECOFIN Meeting on EU Budget
Nov 24	Malaysia	Central Bank of Malaysia <i>Monetary Policy Statement</i>
Nov 24	Israel	Bank of Israel Interest Rate Announcement
Nov 24	Hungary	Central Bank of Hungary Monetary Policy Meeting
Nov 25/26	Poland	National Bank of Poland Monetary Policy Council Meeting
Nov 25	Slovakia	National Bank of Slovakia Monetary Policy Report
Nov 28	Mexico	Bank of Mexico Monetary Policy Announcement

**Figure 3. Forecast Highlights and Changes from Last Month**

<b>G3</b>	
• United States	• Fed policy has been thrust into renewed rate cutting, with additional action likely amid signs that the recession is worsening as inflation pressures diminish.
• Euro Area	• With the euro area economy likely to contract in 2009, inflation risks have diminished substantially. We expect sizable rate cuts by the ECB to 2% in 2009, in an attempt to calm financial markets.
• Japan	• The BoJ will probably leave policy rates unchanged through 2009. A rate cut appears unlikely given that officials still believe financial conditions remain accommodative in Japan.
<b>Others</b>	
• United Kingdom	• The MPC is likely to continue to cut rates rapidly, with a 50-basis-point cut expected at the November meeting (if not before).
• Canada	• Dim growth prospects and a benign inflation outlook suggest that the BoC may cut the policy rate target to 1.0% before the spring of 2009.
• Australia	• With the global economic outlook deteriorating, the RBA cut rates aggressively in October. Further easing is expected in the months ahead, taking the cash rate from the current 6% to a low of 4%.
• China	• The PBOC will probably cut the policy rate six times and reduce reserve requirements by 3 percentage points before mid-2009.
• Other Emerging Markets	• The channels linking emerging markets to the G3 have expanded and deepened, creating more divergence and uncertainty.

## Extraordinary Volatility and Policy Response

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*Markets have suffered  
 since the Lehman  
 bankruptcy.*

*Policy responses have  
 also been extraordinary.*

*Systemic failure has  
 been averted...*

*...but higher risk  
 aversion and wealth  
 destruction is choking  
 spending.*

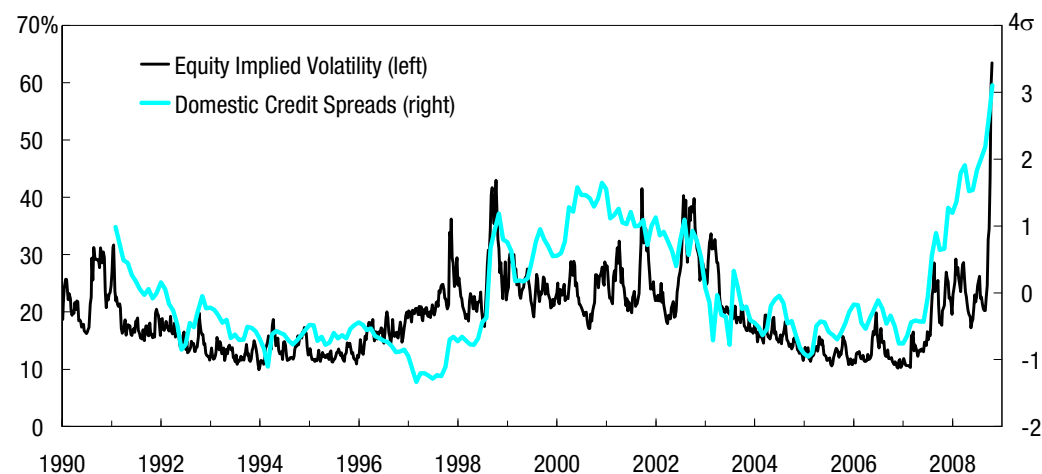
In the past five weeks, following the collapse of Lehman Brothers, financial markets have deteriorated in an almost unprecedented way. Liquidity across virtually the full range of financial markets has declined substantially as the fallout from the Lehman bankruptcy intensified concerns about counterparty risk. Interbank markets have all but shut down. Credit markets, which had been deteriorating since the summer of 2007, went to new extremes (see Figure 4.) Equity markets have declined by an astounding 30% in U.S. dollars since mid-September, wiping out \$12 trillion in wealth. Market participants appeared to question the viability of major financial institutions as their equity prices fell and the cost of default protection rose sharply.

This extraordinary deterioration in financial markets has prompted an equally extraordinary set of policy initiatives. Central banks in the major countries dramatically expanded their provision of liquidity to financial market participants and lowered their targets for short-term interest rates. Governments in major countries expanded deposit insurance coverage for banks, offered guarantees for new borrowing by major financial institutions, and established programs to inject capital into those institutions. The U.S. government also established a program to buy troubled assets.

This extremely aggressive policy response probably was appropriate given the very real threat of a systemic failure. It also has been successful, at least at the most basic level. Pressures in short-term money and interbank markets have eased somewhat. But global financial markets remain fragile and volatile. The recent volatility and asset price declines appear to have triggered another round of deleveraging as other financial institutions, such as hedge funds, pull back from risk. Moreover, it appears that financial markets increasingly are being driven by the economic consequences of recent events.

The events of the past five weeks have created new downdrafts that are likely to further restrain an already slumping global economy. The financial volatility and obvious potential systemic risk that were revealed in recent weeks appear to have increased caution by both households and businesses. Consequently, spending appears to be gapping lower and it is unclear how long these trends will last. There has been a

**Figure 4. United States — Cross Market Credit Spreads (Average Log Normalized), 1990 – 22 Oct 08**



Note: Average of log normalized spreads for investment grade and high yield corporate bonds, conventional mortgage and asset-backed securities, agencies and swaps. Source: Citi.

substantial reduction in global wealth that will weigh on aggregate demand. Ongoing balance sheet rehabilitation by big banks will limit credit growth in major economies. Recent interventions probably have reduced materially the risks of a broad failure of the financial system, but the long-term need to restore the efficient functioning of the financial systems remains a significant challenge. In addition, the recent turmoil has revealed new financial weaknesses in emerging economies.

*Lower commodity prices are a partial offset in the G3 and most of Asia...*

*...but not enough to avoid a global recession*

Recent declines in commodity prices will be a boon to commodity importers. This is potentially an important offset to other factors pulling down global growth. For example, the savings for U.S. consumers that are likely to flow from recent declines in oil prices are roughly as big as the tax cuts they received earlier in the year. In June, we considered an alternative scenario in which oil prices fell from \$145 per barrel to \$90. This change raised estimated global GDP by more than one percentage point in 2009.<sup>1</sup>

Taken together, however, these new pressures point to a significant weakening of the outlook for the global economy. Economic activity in the United States, the United Kingdom, and the euro area are contracting now. We are also expecting a notable slowdown across the emerging world. All of this adds up to a significant global recession.

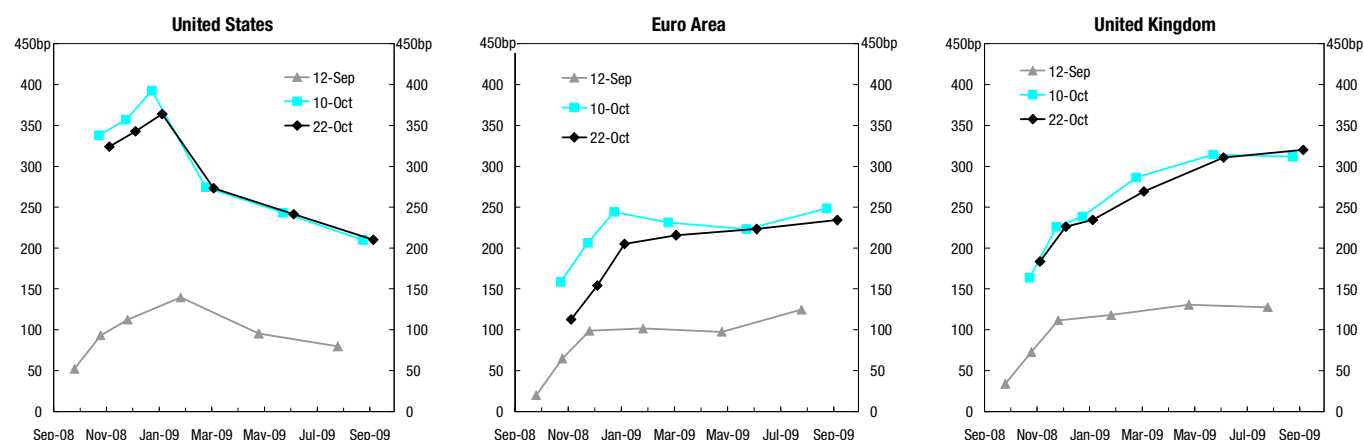
### The Policy Response and Impact

*Lehman's failure drove up perceived risks, threatening financial stability.*

The failure of Lehman Brothers had systemic consequences that U.S. policymakers appeared not to anticipate. A broad range of financial institutions were exposed. Some money market mutual funds incurred significant losses and that generated outflows from that sector. Some hedge funds had prime brokerage relationships disrupted. Financial institutions in general were perceived to be more risky in the wake of the Lehman failure.

The negative market reaction to these developments was intense and posed a real threat to the stability of the core of the global financial system. The policy response has been comprehensive and it has been put in place quickly. The G7 stated its intention to

**Figure 5. United States, Euro Area, and the United Kingdom — Forward Structure of Spreads Between Interbank Rates and Overnight Index Swaps (Basis Points) 12 Sep–23 Oct 08**



Note: Difference between implied forward rates derived from interbank deposit rates and OIS rates at standard maturities. Sources: Bloomberg and Citi.

<sup>1</sup> See *Global Economic Outlook and Strategy*, Citi, June 19, 2008.

*A quick, widespread policy response addressed key issues of liquidity and solvency.*

support all “systemically significant” financial institutions. In a matter of weeks, governments in the United States, the United Kingdom, and the euro area expanded deposit insurance, extended guarantees for new bank debt, and made commitments to inject capital into financial institutions. Euro area governments managed to successfully cooperate in supporting a number of large institutions with significant cross-border activity. The U.S. government established a mechanism to provide guarantees for money market mutual funds and another one to buy troubled assets. Major central banks have also lowered their targets for short-term interest rates and have expanded significantly their provision of liquidity to financial markets.

*Systemic risk has eased, along with liquidity.*

These initiatives are proactive responses to significant problems. They are consistent with policies that have successfully arrested major banking crises in the past. They appear to have been successful, at least for now, at containing systemic risk. Spreads between interbank interest rates and expectations for overnight rates (that is, overnight index swap rates) have started to come down (see Figure 5.) Moreover, perceptions of credit risk have fallen for the banks that have been given access to new capital and guarantees for new debt issuance (see Figure 6.)

*But conditions remain stressed, with ongoing deleveraging and a likely global recession ahead.*

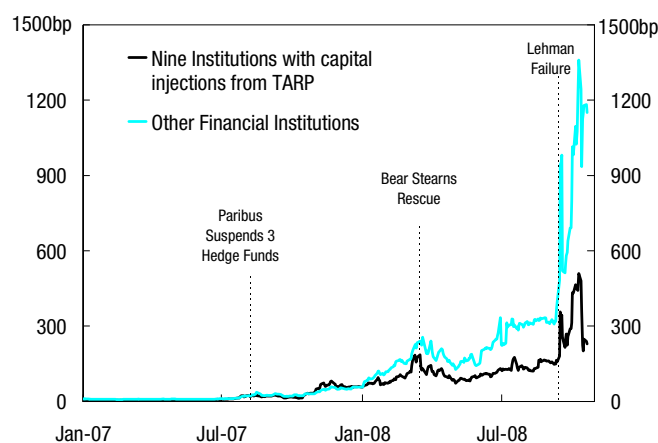
But the recovery is far from complete. Liquidity in interbank markets remains depressed relative to where it was before the Lehman failure. Moreover, efforts to stabilize significant institutions, while necessary, have not relieved pressures on other parts of the financial system. Deleveraging is ongoing and financial conditions remain extremely tight. Prospects for the global economy must be seen in this light: A likely global recession will feed back negatively on asset fundamentals, and asset prices are likely to remain depressed for some time.

## Economic Consequences

*The world was slowing before Lehman’s failure.*

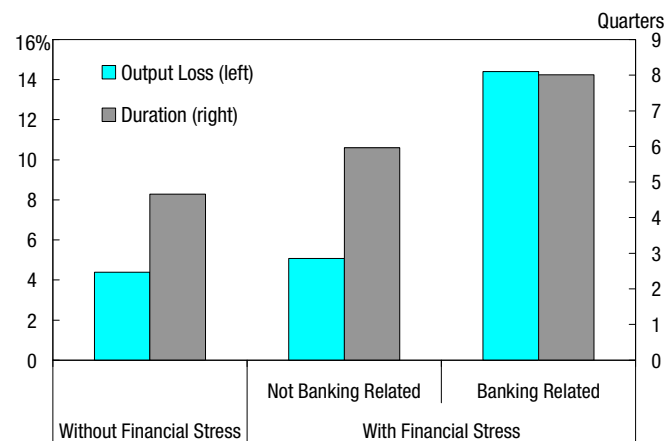
The global economy was slowing before the failure of Lehman Brothers. At the end of the summer it was apparent that the U.S. economy had slowed from the relatively rapid pace of growth we saw in the second quarter. Moreover, weakness in Europe and many emerging markets had also become much more evident.

**Figure 6. United States — CDS Spreads for U.S. Financial Institutions, 2007–14 Oct 08**



Source: Reuters.

**Figure 7. Industrial Countries — Growth Slowdowns With and Without Financial Stress**



Note: Reflects Experience of 17 Industrial Countries.  
Sources: IMF, World Economic Outlook, October 2008.

**Banking and financial stresses deepen and lengthen recessions.**

The problems in the financial sector were and are a central factor in this slowdown. Tight financial conditions, generated in large part by losses on the books of major financial institutions, was constraining growth in the United States, the United Kingdom, and the euro area as of late summer. Recent research by the IMF highlights the role financial shock can play in cyclical downturns (see Figure 7). The IMF staff has shown that slowdowns in industrial countries associated with financial stress tend to be deeper and longer than other slowdowns. The effect is even larger when the financial stress is related to problems in the banking sector.

**Economic conditions have deteriorated sharply in September and October.**

The events of the last five weeks are likely to be a significant additional shock. The recent volatility in financial markets appears to have made businesses and households more cautious. For example, the NAPM purchasing managers' survey declined sharply for the month of September. Forward-looking business surveys are also off significantly in Europe and the United Kingdom. Anecdotal evidence also points to a slowdown in consumer spending in the United States and elsewhere as a consequence of the latest financial turmoil.

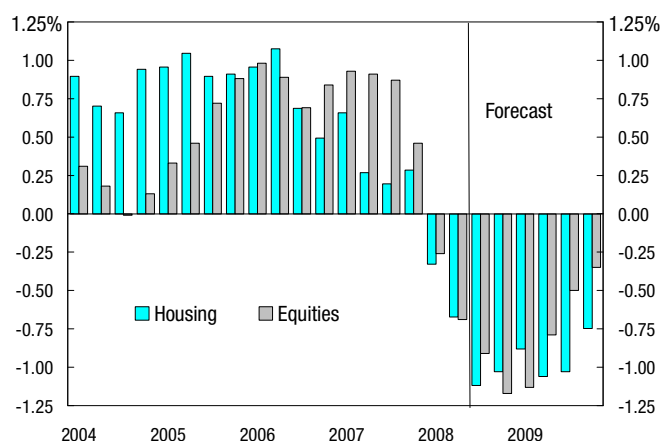
**Wealth destruction will cut U.S. consumption by 2% next year.**

The recent selloff in markets has also generated a significant destruction of wealth, which will have lasting effects. Figure 8 shows our estimates of the impact of the projected declines in equity and real estate wealth of U.S. households on their consumption. These estimates are based on the assumption that U.S. housing prices (Case-Shiller) fall another 14% and equity prices remain at current levels until the second quarter of 2009 and then recover modestly. Under those assumptions we estimate declines in the value of household wealth will reduce consumption by almost two percentage points over the next year. These protracted wealth effects are the main reason why consumption is expected to remain depressed for an unusually long time (see Figure 9).

**Europe and the U.K. face similar financial constraints on growth.**

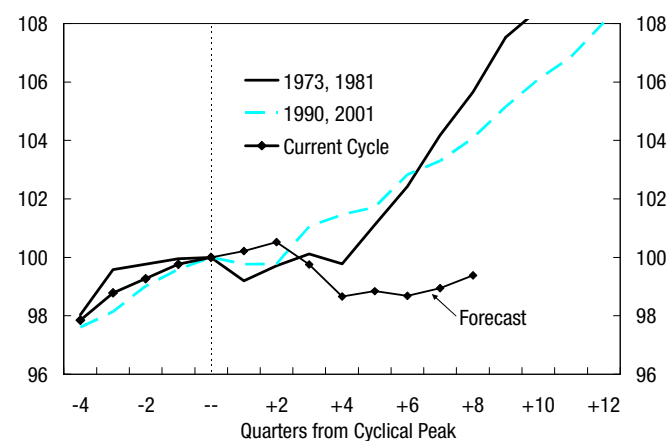
Of course, the recent upsurge in financial stress is having a significant impact in Europe as well. The pressures on banks and other financial institutions in the United Kingdom are contributing to a significant correction in the U.K. housing market, which in turn is constraining consumption. Tight financial conditions generally are also limiting spending by businesses. The euro area is experiencing similar if somewhat less

**Figure 8. United States — Estimated Impact of Changes in Equity and Real Estate Wealth on Consumption, 2004-4Q 09F**



Sources: BEA and Citi.

**Figure 9. United States — Personal Consumption Expenditures Around Recessions, 1973-09E**



Sources: BEA and Citi.



intense pressures. Construction activity in some areas, such as Spain, is contracting. Export growth is also being limited by the slowdowns in the United States and the United Kingdom. Figure 10 shows our forecast for GDP in the United States, the euro area, and the United Kingdom. Economic activity in all three areas is expected to contract in the second half of this year and the first half of next year. The contraction is expected to extend into the second half of next year in the United Kingdom. These downturns are also expected to start easing inflationary pressures very soon (see Figure 11). The prospect of lower headline inflation should ease the way for more substantial interest rate reductions in the United Kingdom and the euro area.

### Withdrawal From Risk and Emerging Markets

*Emerging markets were also slowing over the summer.*

Over the summer, it was clear that growth in many emerging market economies was starting to moderate in response to tighter monetary policy in some countries and lower demand growth in the United States and the United Kingdom.

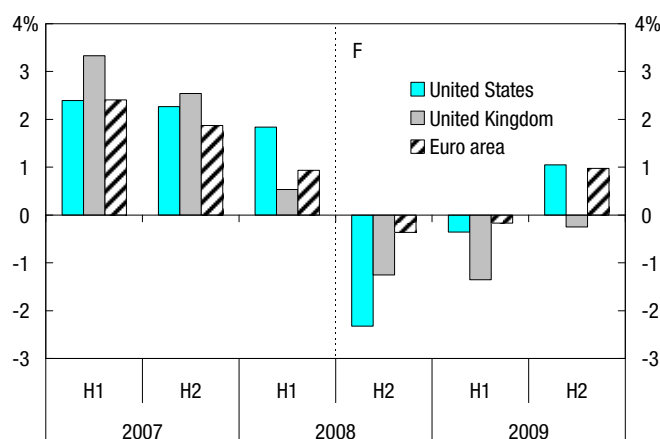
*Falling risk appetite has added emerging market currency volatility to the mix...*

The financial volatility and general withdrawal from risk that has occurred over the past month has exposed emerging economies to heightened exchange rate volatility. Figure 12 shows changes in nominal exchange rate indices for a number of countries. The general pattern of exchange rate changes is consistent with a significant reduction in risk appetite. The U.S. dollar, the yen, and the Swiss franc have all appreciated since the end of July. These are all funding currencies with low nominal interest rates. In contrast, many of the emerging market currencies, and some high nominal interest rate industrial country currencies, have depreciated over the same period. For example, the Mexican peso, the Korean won, and the Brazilian real all depreciated between 20% and 25% since mid-September. Over the same period, the Australian dollar depreciated by 19%. This suggests that a general withdrawal from risk has helped to drive emerging market exchange rates, in addition to any specific concerns about individual countries.

*...creating balance sheet effects that can be problematic.*

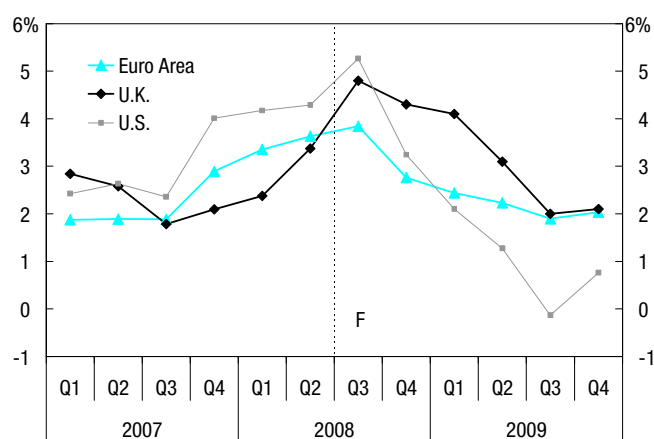
Heightened exchange rate volatility has generated unexpected foreign exchange losses for a range of institutions across emerging markets. These balance sheet losses may, in some cases, be large enough to have macroeconomic effects. (For a more detailed discussion of emerging market issues see the “Emerging Markets: Examining the Turmoil”).

**Figure 10. United States, United Kingdom, and the Euro Area — GDP Growth (Percent, SAAR), 2007–09E**



Sources: Haver and Citi.

**Figure 11. United States, United Kingdom, and the Euro Area — Consumer Prices (Year-to-Year Percent Change), 2007–09E**



Sources: Haver and Citi.



**Figure 12. Changes in Trade-Weighted Exchange Rates (Percent), 31 Jul 08-23 Oct 08**

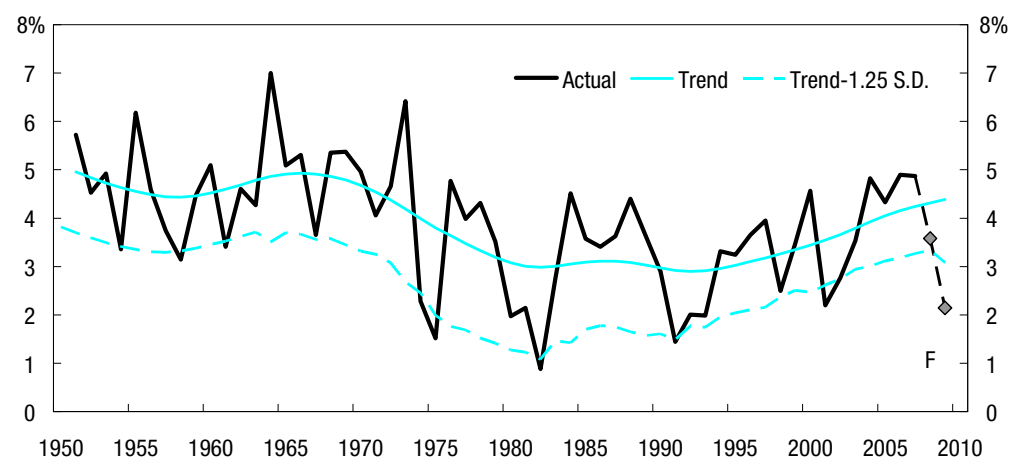
	Jul 31 to Sep 12	Sep 12 to Oct 23	Total
Japan	5.0%	10.8%	15.8%
United States	5.3	7.0	12.3
Switzerland	0.6	3.2	3.8
United Kingdom	-5.6	3.1	-2.5
Euro Area	-3.1	-1.1	-4.2
Australia	-11.6	-19.3	-30.8
China	3.8	2.6	6.4
Russia	-1.9	2.5	0.7
Turkey	-0.1	-4.6	-4.7
India	4.3	-11.7	-7.4
Poland	-5.2	-5.7	-11.0
South Africa	-7.8	-7.3	-15.2
Hungary	-4.4	-11.3	-15.7
Mexico	-3.5	-20.7	-24.2
Korea	0.4	-24.6	-24.2
Brazil	-3.9	-21.7	-25.6

Source: Citi.

### Global Recession

*Measured against trend,  
global growth in 2009  
will be the worst since  
World War II.*

We are now expecting a sharp decline in global growth. There is no commonly accepted definition of a global recession. One approach to this problem is to consider deviations of global growth from its trend. Figure 13 shows global GDP growth, aggregated based on Purchasing Power Parity GDP, and its trend. Since 1950, there have been eight years when global growth was more than 1.25 standard deviations below trend. Each of these episodes corresponds to a recession in the United States, except for 1967, which was the year of the first post-war German recession. By this standard, the shortfall in growth that we expect in 2009 is well beyond this simple definition of a global recession.

**Figure 13. Global GDP Growth and Trend (Percent), 1950-2009F**

Sources: Maddison, IMF, and Citi.

**Figure 14. Selected Countries — Economic Forecast Overview, 2006-08F**

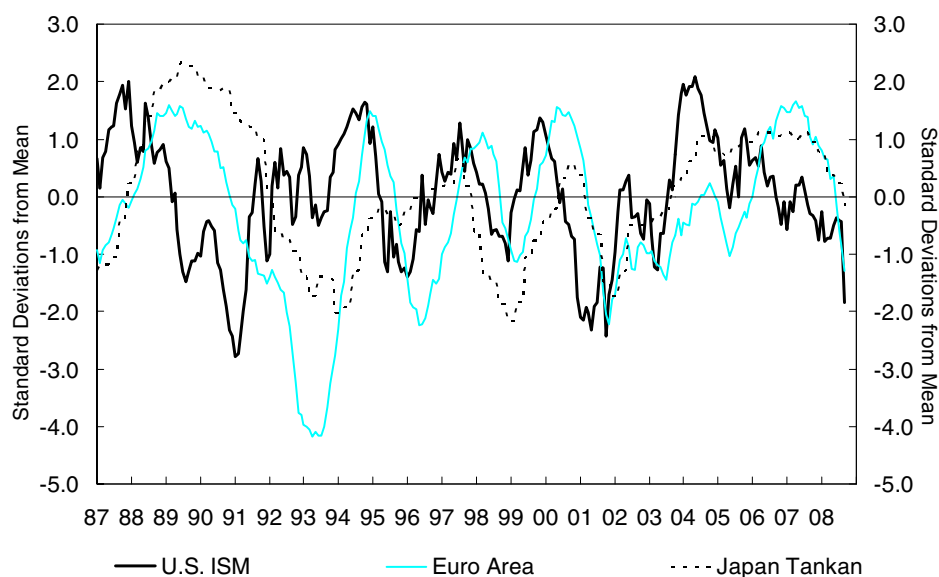
	GDP Growth			CPI Inflation			Current Balance (% of GDP)			Fiscal Balance (% of GDP)		
	2007	2008F	2009F	2007	2008F	2009F	2007	2008F	2009F	2007	2008F	2009F
<b>Global</b>	<b>3.9%</b>	<b>2.7%</b>	<b>1.2%</b>	<b>3.1%</b>	<b>5.2%</b>	<b>3.2%</b>	<b>0.9%</b>	<b>0.5%</b>	<b>-0.2%</b>	<b>-0.3%</b>	<b>-1.1%</b>	<b>-2.5%</b>
<i>Based on PPP weights</i>	4.9	3.6	2.1	3.7	6.1	3.6	1.5	0.8	0.0	-0.4	-1.2	-2.5
<b>Industrial Countries</b>	<b>2.5%</b>	<b>1.2%</b>	<b>-0.2%</b>	<b>2.1%</b>	<b>3.5%</b>	<b>2.1%</b>	<b>-0.5%</b>	<b>-0.7%</b>	<b>-0.8%</b>	<b>-0.7%</b>	<b>-1.8%</b>	<b>-3.1%</b>
United States	2.0%	1.2%	-0.6%	2.9%	4.2%	1.0%	-5.3%	-4.7%	-3.3%	-1.1%	-3.0%	-5.0%
Japan	2.1	0.6	-0.3	0.0	1.6	0.4	4.8	3.8	4.0	-3.3	-4.3	-4.3
Euro Area	2.7	1.1	-0.2	2.1	3.4	2.1	0.3	-0.4	-0.6	-0.6	-1.4	-2.7
Canada	2.7	0.5	0.1	2.1	2.5	1.6	0.9	0.2	-4.1	0.2	0.1	0.1
Australia	4.2	2.4	1.7	2.3	4.5	3.6	-6.2	-4.7	-3.4	1.6	1.5	0.8
Germany	2.6%	1.4%	-0.2%	2.3%	2.7%	1.8%	7.6%	6.3%	3.7%	-0.2%	-0.5%	-2.0%
France	2.1	0.9	-0.2	1.5	2.9	1.3	-1.4	-2.5	-2.8	-2.7	-3.2	-3.8
Italy	1.4	-0.1	-0.4	2.0	3.4	1.6	-2.4	-2.9	-3.2	-1.6	-3.0	-3.8
Spain	3.7	1.3	-0.6	2.8	4.2	2.4	-10.2	-10.7	-9.0	2.2	-0.8	-3.6
Netherlands	3.5	2.0	0.4	1.6	2.6	1.8	7.6	7.1	5.5	0.3	0.7	-0.4
United Kingdom	3.0	1.0	-1.1	2.3	3.7	2.8	-4.0	-3.0	-2.3	-2.6	-4.2	-6.1
<b>Emerging Markets</b>	<b>7.5%</b>	<b>6.2%</b>	<b>4.5%</b>	<b>5.5%</b>	<b>9.0%</b>	<b>5.7%</b>	<b>4.4%</b>	<b>3.3%</b>	<b>1.0%</b>	<b>0.6%</b>	<b>0.4%</b>	<b>-1.2%</b>
China	11.9	9.6	8.8	4.8	6.3	2.0	10.8	8.5	7.0	0.3	-0.3	-1.0
India	9.0	7.2	6.6	4.5	10.5	5.0	-1.5	-3.4	-2.5	-5.3	-4.5	-4.3
Korea	5.0	4.2	2.2	2.5	4.7	3.0	0.6	-1.0	2.0	3.8	3.0	1.5
Poland	6.7	5.3	3.6	2.5	4.3	3.2	-4.7	-4.7	-5.1	-1.4	-1.4	-1.3
Russia	8.1	7.1	4.5	9.0	14.2	10.2	6.0	7.3	0.4	5.4	3.5	0.2
South Africa	5.1	3.4	2.7	7.1	11.8	6.6	-7.3	-8.2	-7.6	0.8	0.6	-0.1
Turkey	4.6	2.5	0.9	8.8	10.3	9.2	-5.7	-6.9	-6.4	-1.6	-2.0	-3.1
Brazil	5.4	5.2	3.0	3.6	5.7	5.6	0.1	-1.7	-1.0	-2.3	-1.7	-2.0
Mexico	3.3	2.2	1.1	4.0	5.0	4.7	-0.7	-1.7	-2.6	0.0	0.0	0.0

Notes: F Citi forecast. In the United Kingdom, inflation is now measured by the CPI. In Norway, forecasts are for mainland GDP. Aggregates are weighted averages of country data, based on weights that reflect nominal GDP expressed in U.S. dollars.

Sources: National sources and Citi.

## Key Economic Indicators

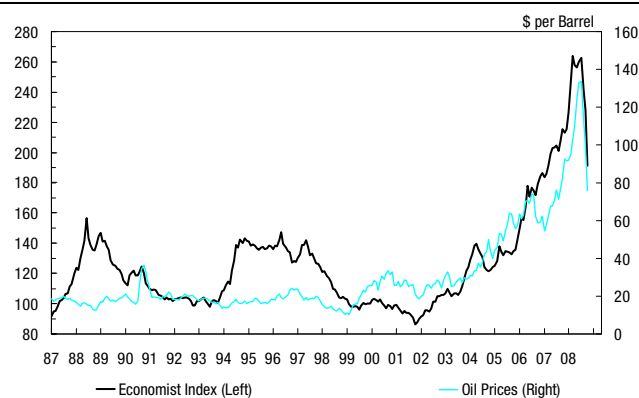
**Figure 15. Euro Area, Japan, and the United States — Business Activity Survey Measures, 1987-October 2008**



Note: The figure shows business activity survey indexes in the euro area, Japan and the United States, measured in units of standard deviations from the ten-year mean.

Sources: Bank of Japan, EU Commission and the U.S. Institute for Supply Management.

**Figure 16. Commodity Prices, 1987-October 2008**



Note: Brent crude. Sources: *The Economist* and OECD.

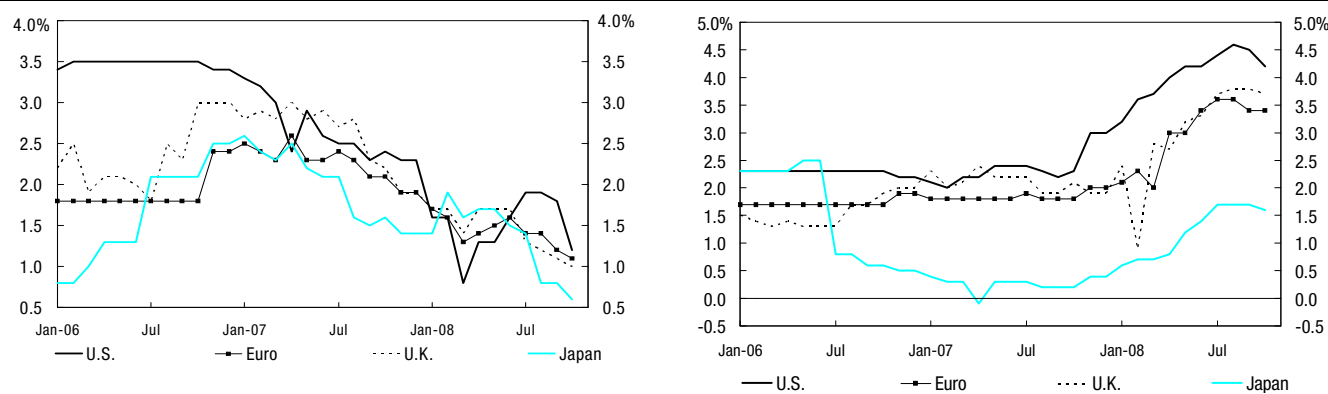
**Figure 17. Selected Countries — Global Industrial Production (Year-to-Year Percent Change), 2007-10F**

	2007	2008F	2009F
World	4.2%	2.2%	0.3%
United States	1.7	-0.3	-2.0
Japan	3.4	-0.6	-2.6
Euro Area	3.4	0.0	-1.5
United Kingdom	0.4	-1.2	-0.7
Canada	0.1	-4.2	-4.3
China	18.5	14.7	10.2
India	8.1	6.1	5.7
Korea	6.8	7.0	2.5
Brazil	6.0	5.6	4.6

Note: "World" includes 22 countries based on industrial production weights.

Sources: National sources and Citi.

**Figure 18. Euro Area, Japan, United Kingdom, and United States — Forecasts for 2008 GDP (Left) and 2008 Inflation (Right), 2006-Oct 2008**



Source: Citi.

**Figure 19. Short Rates (End of Period), as of October 23, 2008**

<b>Short Rates (End of Period),</b>						
	<b>Current</b>	<b>4Q 08</b>	<b>1Q 09</b>	<b>2Q 09</b>	<b>3Q 09</b>	<b>4Q 09</b>
<b>United States</b>	<b>1.50 %</b>	<b>1.00 %</b>	<b>1.00 %</b>	<b>1.00 %</b>	<b>1.00 %</b>	<b>1.00 %</b>
<b>Japan</b>	<b>0.50</b>	<b>0.50</b>	<b>0.50</b>	<b>0.50</b>	<b>0.50</b>	<b>0.50</b>
<b>Euro Area</b>	<b>3.75</b>	<b>2.75</b>	<b>2.25</b>	<b>2.00</b>	<b>2.00</b>	<b>2.00</b>
Canada	2.25 %	1.75 %	1.25 %	1.00 %	1.00 %	1.00 %
Australia	6.00	5.00	4.50	4.00	4.00	4.00
New Zealand	6.50	6.00	5.00	4.50	4.50	4.50
Denmark	5.00 %	3.40 %	2.65 %	2.40 %	2.40 %	2.40 %
Norway	5.25	4.75	4.50	4.25	4.00	4.00
Sweden	3.75	3.25	3.00	2.75	2.50	2.50
Switzerland	2.50	2.25	2.00	1.75	1.50	1.50
United Kingdom	4.50	4.00	3.50	3.00	3.00	3.00
China	6.93 %	6.39 %	5.85 %	5.31 %	5.04 %	5.04 %

Note: The rates shown are overnight rates, except for Denmark, where it is the central bank's seven-day repo rate, Switzerland, where it is the Swiss-Franc's three-month LIBOR, and China, where it is the one-year commercial bank lending rate. Source: Citi.

**Figure 20. 10-Year Yield Forecasts (Period Average), as of October 23, 2008**

	<b>Current</b>	<b>4Q 08</b>	<b>1Q 09</b>	<b>2Q 09</b>	<b>3Q 09</b>	<b>4Q 09</b>
<b>United States</b>	<b>3.65 %</b>	<b>3.50 %</b>	<b>3.60 %</b>	<b>3.75 %</b>	<b>3.90 %</b>	<b>4.05 %</b>
<b>Japan</b>	<b>1.51</b>	<b>1.50</b>	<b>1.50</b>	<b>1.55</b>	<b>1.60</b>	<b>1.65</b>
<b>Euro Area</b>	<b>3.80</b>	<b>4.00</b>	<b>3.90</b>	<b>3.80</b>	<b>3.90</b>	<b>4.00</b>
Canada	3.61 %	3.35 %	3.40 %	3.65 %	3.80 %	3.95 %
Australia	5.08	4.75	4.85	5.25	5.40	5.55
New Zealand	5.89	5.30	5.20	5.25	5.40	5.55
Denmark	4.92 %	4.35 %	4.15 %	4.00 %	4.00 %	4.10 %
Norway	4.26	4.40	4.40	4.35	4.50	4.60
Sweden	3.48	3.80	3.75	3.80	3.95	4.07
Switzerland	2.84	2.95	2.90	2.90	3.10	3.20
United Kingdom	4.42	4.74	4.65	4.55	4.65	4.74

Notes: Bond yields measured on local market basis (semi-annual for the United States, United Kingdom, Canada, Australia, and New Zealand; annual for the rest). The 10-year yield for the euro area is the Bund yield. Source: Citi.

**Figure 21. 10-Year Yield Spreads (Period Average), as of October 23, 2008**

	<b>Spread vs. US\$</b>						<b>Spread vs. Germany</b>					
	<b>Current</b>	<b>4Q 08</b>	<b>1Q 09</b>	<b>2Q 09</b>	<b>3Q 09</b>	<b>4Q 09</b>	<b>Current</b>	<b>4Q 08</b>	<b>1Q 09</b>	<b>2Q 09</b>	<b>3Q 09</b>	<b>4Q 09</b>
<b>United States</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>-12 bp</b>	<b>-47 bp</b>	<b>-27 bp</b>	<b>-1 bp</b>	<b>4 bp</b>	<b>9 bp</b>
<b>Japan</b>	<b>-217 bp</b>	<b>-203 bp</b>	<b>-213 bp</b>	<b>-224 bp</b>	<b>-234 bp</b>	<b>-244 bp</b>	<b>-229</b>	<b>-250</b>	<b>-240</b>	<b>-225</b>	<b>-230</b>	<b>-235</b>
<b>Euro Area</b>	<b>12</b>	<b>47</b>	<b>27</b>	<b>1</b>	<b>-4</b>	<b>-9</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
Canada	-4	-15	-20	-10	-10	-10	-16	-62	-47	-12	-6	-1
Australia	143	125	125	150	150	150	135	81	101	152	157	163
New Zealand	224	180	160	150	150	150	218	137	137	152	157	163
France	40	72	52	26	16	11	28	25	25	25	20	20
Italy	99	122	102	71	66	56	87	75	75	70	70	65
Spain	68	97	82	56	51	41	57	50	55	55	55	50
Netherlands	47	77	57	26	16	11	35	30	30	25	20	20
Belgium	66	97	77	51	41	36	55	50	50	50	45	45
Denmark	123	82	52	21	6	1	50	35	25	20	10	10
Norway	57	87	77	56	56	51	46	40	50	55	60	60
Sweden	-20	27	12	1	1	-2	-32	-20	-15	0	5	7
Switzerland	-85	-58	-73	-89	-84	-89	-97	-105	-100	-90	-80	-80
United Kingdom	77	124	105	80	75	69	67	80	80	80	80	80

NA Not applicable. Note: Spreads calculated on annual basis (except those of the United Kingdom, Canada, Australia and New Zealand over the United States). Source: Citi.

**Figure 22. Foreign Exchange Forecasts (End of Period), as of October 23, 2008**

	vs USD						vs EUR					
	Current	Dec-08	Mar-09	Jun-09	Sep-09	Dec-09	Current	Dec-08	Mar-09	Jun-09	Sep-09	Dec-09
<b>United States</b>	NA	NA	NA	NA	NA	NA	1.29	1.30	1.27	1.25	1.22	1.20
<b>Japan</b>	97	100	100	100	103	105	125	130	127	125	125	126
<b>Euro Area</b>	1.29	1.30	1.27	1.25	1.22	1.20	NA	NA	NA	NA	NA	NA
Canada	1.26	1.22	1.24	1.25	1.26	1.27	1.62	1.59	1.57	1.56	1.54	1.52
Australia	0.67	0.72	0.72	0.75	0.78	0.80	1.92	1.81	1.76	1.67	1.56	1.50
New Zealand	0.60	0.62	0.62	0.63	0.63	0.64	2.16	2.10	2.05	1.98	1.94	1.88
Norway	6.98	6.62	6.54	6.56	6.64	6.67	8.98	8.60	8.30	8.20	8.10	8.00
Sweden	7.77	7.38	7.48	7.60	7.75	7.83	9.99	9.60	9.50	9.50	9.45	9.40
Switzerland	1.16	1.19	1.24	1.26	1.31	1.35	1.50	1.55	1.57	1.58	1.60	1.62
United Kingdom	1.62	1.63	1.59	1.51	1.47	1.45	0.79	0.80	0.80	0.83	0.83	0.83
China	6.84	6.75	6.72	6.65	6.55	6.40	8.8	8.8	8.5	8.3	8.0	7.7
India	49.8	50.0	47.0	46.8	46.5	46.0	64.1	65.0	59.7	58.4	56.7	55.2
Korea	1408	1250	1200	1200	1200	1200	1812	1625	1524	1500	1464	1440
Poland	2.98	2.62	2.69	2.68	2.76	2.79	3.84	3.40	3.41	3.35	3.37	3.35
Russia	26.9	26.8	28.5	29.4	29.4	29.4	34.6	34.8	36.1	36.8	35.9	35.3
South Africa	11.11	9.80	9.35	9.50	9.60	9.75	14.30	12.74	11.87	11.88	11.71	11.70
Turkey	1.67	1.60	1.63	1.65	1.68	1.70	2.15	2.08	2.07	2.06	2.05	2.04
Brazil	2.29	1.95	1.97	2.00	2.00	2.00	2.94	2.54	2.50	2.50	2.44	2.40
Mexico	13.5	12.0	11.9	11.8	11.7	11.5	17.3	15.6	15.1	14.8	14.3	13.8

Source: Citi.

**Figure 23. Foreign Exchange Forecasts (End of Period), as of October 23, 2008**

	vs JPY					
	Current	Dec-08	Mar-09	Jun-09	Sep-09	Dec-09
<b>United States</b>	97	100	100	100	103	105
<b>Japan</b>	NA	NA	NA	NA	NA	NA
<b>Euro Area</b>	125	130	127	125	125	126
Canada	77	82	81	80	81	83
Australia	65	72	72	75	80	84
New Zealand	58.0	62.0	62.0	63.0	64.6	67.2
Norway	14.0	15.1	15.3	15.2	15.4	15.8
Sweden	12.5	13.5	13.4	13.2	13.2	13.4
Switzerland	84	84	81	79	78	78
United Kingdom	158	163	159	151	151	152
China	14	15	15	15	16	16
India	1.96	2.00	2.13	2.14	2.20	2.28
Korea	14.46	12.50	12.00	12.00	11.71	11.43
Poland	32.7	38.2	37.2	37.3	37.1	37.6
Russia	3.6	3.7	3.5	3.4	3.5	3.6
South Africa	8.8	10.2	10.7	10.5	10.7	10.8
Turkey	58.4	62.5	61.3	60.6	61.0	61.8
Brazil	42.6	51.3	50.8	50.0	51.3	52.5
Mexico	7.2	8.3	8.4	8.5	8.8	9.1

Source: Citi.

## Currency Outlook

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Extreme uncertainty in global financial markets and the poor outlook for the global economy continue to drive volatility in currency markets. Deleveraging is also having a major impact as so-called carry trades are unwound. We think this process has further to run and, as such, do not expect a quick reversal of recent currency moves.

The Japanese yen (JPY) has appreciated very sharply against high interest rate currencies over the past month, such as the euro (EUR) and the Australian dollar (AUD), as deleveraging intensified. Meanwhile, the yen's appreciation against the US dollar (USD) has been much more modest. This combination will probably persist in coming quarters and we expect that the USD/JPY will stay around 100 until the middle of 2009. As the outlook for the U.S. economy improves late next year, a shift of Japanese household portfolios into foreign currency denominated assets will probably generate modest JPY depreciation.

The EUR has continued its sharp deterioration against the USD, at a time when the outlook for the U.S. economy deteriorated substantially. This suggests that the market continues to downgrade its outlook for the euro area economy and ECB rates. However, in our view, the market view on GDP growth and ECB rates is still too high. So, we look for a further gradual weakening of the EUR against the USD, to 1.25 by mid-2009 and 1.20 at the end of next year.

Sterling is also likely to remain weak, as the United Kingdom slides into a fairly severe recession. We expect domestic demand to shrink sharply in 2009, similar to the worst declines of the past 50 years. Under these conditions, further currency weakness — unless precipitous — will not stop the MPC from cutting interest rates further. Political uncertainties and worries about the United Kingdom's soaring fiscal deficit in the run-up to the next election also are likely to weigh on the pound.

With the Swiss economy deteriorating in line with Western Europe, the economic outlook will not do much for the Swiss franc (CHF). In the current situation, the primary driver is the financial market turmoil, and we see two-sided risk in terms of the CHF. However, moderately rising risk appetite tends to disfavor the CHF — that is, we give it a gradually depreciating profile versus the EUR in coming quarters.

Almost every Asian currency depreciated against the USD during the past month in response to deleveraging and weakening economic prospects. The biggest declines were in Korea, India, Indonesia, and the Philippines, in line with our expectations. Our medium- to long-term outlook for Asian currencies remains upbeat, but these currencies are likely to stay weak for now, at least until the global financial crisis eases substantially. Among them, the Korean won, Indonesian rupiah, Vietnamese dong, Indian rupee, and Philippine peso could be at greater risk of weakening. Meanwhile, China's currency is among the most resilient in the region.

The AUD continues to trade in a very volatile range, with significant deleveraging of the "carry trade," lower commodity prices, and aggressive policy responses to the outlook for slower global growth. Any signs of financial market stability are likely to be supportive for the AUD because we expect Australia to be one of the few OECD nations that does not fall into recession. But, for now, the risks remain to the downside. The New Zealand dollar (NZD) has also been under pressure, with the economy already in recession and the central bank easing policy.

We expect the Canadian dollar (CAD) to continue to depreciate in the face of reduced terms of trade, recessionary conditions, and the strong likelihood of additional policy easing. Given our negative view on most key factors currently driving the Nordic currencies (except for public finances and fiscal policy), the EUR/SEK and the EUR/NOK are likely to stay weak in coming months.

Currency vulnerabilities in CEEMEA are becoming more apparent: The South African rand, Hungarian forint, and Turkish lira have all depreciated by more than 20% against the USD in the past month. These countries have a set of external vulnerabilities in common — current account deficits and large refinancing needs — which seem difficult to sustain in a world of limited risk appetite. Meanwhile, risks to pegged currencies — in Ukraine and the Baltics for example — are being reflected in sharp rises in sovereign CDS spreads. For the most vulnerable countries, one key issue in the near term is the extent to which IMF lending can stabilize the balance of payments. The IMF has loanable funds of just more than US\$250 billion, and the market is expecting financing packages to be announced soon for at least Hungary, Ukraine, and Pakistan.

Russian financial stability has been threatened by the high dependence of Russian banks on wholesale funding: Russia's banks had net currency liabilities of some US\$150 billion at the end of 2007, the product of a loan/deposit ratio of 150%. Financial risks could mount with further downside pressure on energy prices, leaving Russia with a choice of selling reserves, allowing the currency to depreciate, or imposing restrictions on outflows. For the time being we consider the first two options most likely.

Our forecasts imply a stronger path for most Latin American currencies than those implied by forward markets. However, downside risks are significant and we generally do not favor long positions in Latin currencies at this time. We anticipate slowing economic activity to dominate central bank discussions in coming months, rather than inflation fears of pass-through from weaker currencies. Therefore, we generally expect central banks to postpone hikes or remove them from the horizon entirely, adding downside risk to local currencies.

**Figure 24. Currency Recommendations, as of October 23, 2008**

	Current	3-Month Forecast	Annual Return vs FWD	Implied Vol.	12-Month Forecast	Annual Return vs FWD	Implied Vol.
<b>United States</b>	NA	NA	NA	NA	NA	NA	NA
<b>Japan</b>	97	100	-12.8	20.6	103	-7.8	14.9
<b>Euro Area</b>	1.29	1.29	2.1	18.2	1.22	-5.4	15.0
Canada	1.26	1.23	9.4	17.2	1.26	-0.8	13.7
Australia	0.67	0.72	33.2	31.5	0.79	18.4	22.3
New Zealand	0.60	0.61	22.0	27.9	0.63	10.0	20.8
Norway	6.98	6.60	26.1	21.8	6.65	6.6	18.0
Sweden	7.77	7.41	19.0	21.0	7.77	0.4	17.0
Switzerland	1.16	1.20	-15.0	16.1	1.32	-13.4	14.0
United Kingdom	1.62	1.62	1.1	18.9	1.46	-8.7	15.4
China	6.84	6.74	10.8	7.4	6.51	7.4	12.7
India	49.8	49.2	28.9	24.0	46.4	14.8	24.4
Korea	1408	1237	42.3	54.0	1200	12.4	36.1
Poland	2.98	2.63	52.1	34.0	2.77	9.2	24.4
Russia	26.9	27.2	39.7	24.4	29.4	12.0	23.8
South Africa	11.11	9.69	64.5	47.3	9.64	23.5	33.4
Turkey	1.67	1.61	31.2	36.2	1.69	14.9	28.2
Brazil	2.29	1.96	70.6	47.5	2.00	21.4	36.3
Mexico	13.5	12.0	60.5	49.6	11.7	22.8	38.6

Source: Citi.



## Global Equity Strategy: A Downward Spiral

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We are now in the midst of a full-blown global financial crisis. Policymakers have been unable to calm the storm, although the increasingly aggressive response offers some hope. The earnings downturn looks to have much further to go. On the positive side, we think that there is already plenty of bad news factored into global equity prices, but the short-term uncertainties mean that any rally may prove hard to sustain. We favor the cheaper European markets over Asia, where the scope for further earnings disappointment remains considerable. We are now Neutral on the United States given that it is further into the earnings downturn cycle. At the sector level, the earnings risks ahead mean that we still favor defensives over cyclicals. Thus, we upgraded telecom to Overweight and cut consumer discretionary to Underweight.

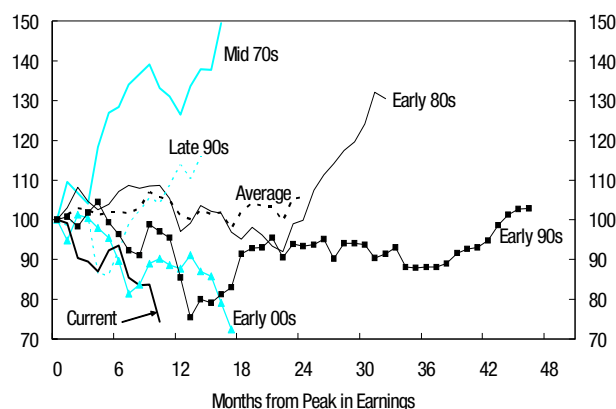
The outlook for the global economy continues to deteriorate. The impact of the credit crisis and the weakening economic outlook paint a depressing picture for corporate earnings. Our analysis of previous downturns suggests that, on average, global earnings typically fall by about 25%. So far they are down 9% (see Figure 25). For now, our forecasts are based on this being an average earnings recession. But the risk is this earnings downturn will be the worst in the past 40 years. Given historically high levels of profitability, a downturn greater than the early 2000s (-38%) and longer than the early 1990s (four years) is a real possibility. The challenge for global equity markets is exacerbated when we look at IBES analysts' aggregated bottom-up earnings forecasts. Forecasts for 2009 still anticipate a 16% rise in earnings. Our expectation that global earnings have at least another 15% to fall suggests that analyst forecasts may still be 30% too high.

*Trailing PE are the lowest since the early 1980s.*

*Earnings forecasts are too optimistic.*

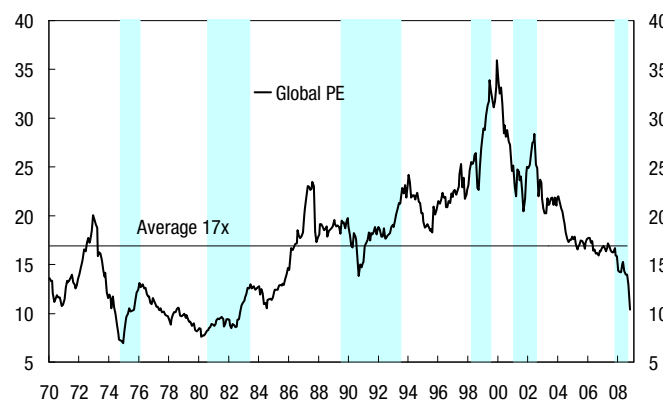
Getting earnings right does not always mean getting share prices right. In all but the earnings recession of the early 2000s, when a combination of high starting valuations (25 times) and a steep earnings downturn proved insurmountable, global equity prices have reached higher levels at the earnings trough than the earnings peak. Multiple expansion has outweighed earnings declines. Figure 26 shows the MSCI World trailing PE with the shaded areas reflecting the major global earnings recessions. At its current PE of just under 11 times, the global equity market is now at its lowest valuation since the early 1980s. At these levels valuations seem to be already discounting a lot of bad news on the earnings front.

**Figure 25. Stock Market Pullbacks During Previous Financial Crises**



Sources: MSCI and Citi.

**Figure 26. Price to Book at Market Bottoms During Previous Financial Crises, 1970-3Q 08**



Sources: MSCI and Citi.

*Yield crossover  
suggests some equities  
may be cheap...*

Some parts of the global equity market look particularly cheap against defensive assets. In Europe, the yield on equities has crossed the yield on government bonds in recent weeks. The only time this happened in the past 50 years was in the United Kingdom at the bottom of the last bear market (March 2003) and, even then, for only a few days. This crossover has been a good trading buy signal even in the deflationary Japanese equity market of the past ten years.

*...but there is a lack of  
visibility.*

We always thought that 2008 would be the toughest year for global equities since the market turned in 2003, but we did not expect it to be this tough. Global equities have looked cheap to us since midyear, but they keep getting cheaper. Risk premiums have risen to unprecedented levels, which is understandable given the unprecedented nature of the challenges that markets currently face. Nevertheless, we can take some comfort from valuation metrics not present three months ago. Despite this, it seems unlikely that global equity markets will be able to sustain any meaningful recovery from here until we have greater visibility on the impact of the recent moves to resolve the financial crisis. We think that a lot of bad news is already priced in, but it seems unlikely that enough investors will feel brave enough to take the plunge. Therefore, rather than looking for a wholesale turn in global equities, we recommend that investors use the current weakness to build a portfolio of global blue chips with strong balance sheets and resilient earnings and dividends.

Our key regional and global sector recommendations are summarized in Figure 27. The overall shape of our recommendations looks defensive, reflecting our increased concern about the global economic and earnings outlook. At a regional level, we have a value tilt, favoring the low-rated European markets over their more expensive Asian peers. The United States looks expensive, but at least it has more of the bad news out in the open. As for sectors, we have a defensive bias. We are now overweight three traditional defensive sectors, which should provide some protection against further earnings downgrades in those areas close to the credit crisis and weakening global economy. Elsewhere, we cut consumer discretionary back to Underweight. This sector has outperformed in recent months but looks overdone given the pressure on consumer spending. We are not ready to call the turn in the financials, but for those looking to make a more contrarian call in the sector, we would favor insurers. As for banks, we prefer the debt to the equity.

**Figure 27. Regional and Global Sector Recommendations (Arrows Show Latest Changes)**

Overweight	Neutral	Underweight
U.K.	U.S. ↑	Japan
Europe ex-U.K.		Asia Pac ↓
CEEMEA		Latam
Overweight	Neutral	Underweight
Energy	Industrials	Financials
Health Care	Materials	IT
Consumer Staples		Consumer Disc. ↓
Telecoms ↑		Utilities

Note: Arrows indicate upgrade or downgrade.

Source: Citi Investment Research.

**Figure 28. Long-Term Forecasts (Calendar Average), as of October 22, 2008**

	GDP					CPI					Short-Term Interest Rates				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
<b>United States</b>	<b>1.2%</b>	<b>-0.6%</b>	<b>3.0%</b>	<b>2.7%</b>	<b>2.7%</b>	<b>4.2%</b>	<b>1.0%</b>	<b>1.5%</b>	<b>2.2%</b>	<b>2.2%</b>	<b>2.10%</b>	<b>1.00%</b>	<b>2.20%</b>	<b>3.75%</b>	<b>3.75%</b>
<b>Japan</b>	<b>0.6</b>	<b>-0.3</b>	<b>1.2</b>	<b>1.5</b>	<b>1.0</b>	<b>1.6</b>	<b>0.4</b>	<b>-0.2</b>	<b>0.5</b>	<b>2.3</b>	<b>0.5</b>	<b>0.5</b>	<b>0.7</b>	<b>1.3</b>	<b>1.9</b>
<b>Euro Area</b>	<b>1.1</b>	<b>-0.2</b>	<b>0.7</b>	<b>1.2</b>	<b>1.6</b>	<b>3.4</b>	<b>2.1</b>	<b>1.4</b>	<b>1.6</b>	<b>1.6</b>	<b>3.90</b>	<b>2.05</b>	<b>2.25</b>	<b>3.00</b>	<b>3.50</b>
Canada	0.5	0.1	2.0	2.5	3.0	2.5	1.6	2.0	2.1	2.0	2.9	1.1	1.0	2.3	3.9
Australia	2.4	1.7	2.2	3.0	3.0	4.5	3.6	2.8	2.5	2.5	6.6	4.1	6.0	6.0	6.0
New Zealand	0.5	1.5	2.0	2.5	3.0	4.3	3.7	2.5	2.3	2.3	7.5	4.6	6.0	6.0	6.0
Germany	1.4	-0.2	1.0	1.1	1.4	2.7	1.8	1.0	1.3	1.5	NA	NA	NA	NA	NA
France	0.9	-0.2	0.8	1.8	2.1	2.9	1.3	1.0	1.3	1.5	NA	NA	NA	NA	NA
Italy	-0.1	-0.4	0.3	0.9	1.2	3.4	1.6	1.3	1.3	1.5	NA	NA	NA	NA	NA
Spain	1.3	-0.6	0.4	0.7	1.3	4.2	2.4	1.9	1.8	1.8	NA	NA	NA	NA	NA
Netherlands	2.0	0.4	1.5	2.5	2.5	2.6	1.8	1.6	1.8	1.8	NA	NA	NA	NA	NA
Norway	2.7	1.7	2.1	2.7	3.0	3.7	2.8	2.3	2.3	2.4	5.3	4.3	4.3	4.8	4.8
Sweden	0.8	0.4	1.5	2.3	2.4	3.6	2.3	1.9	2.0	2.0	4.3	3.0	2.8	3.3	3.5
Switzerland	1.7	0.1	1.0	1.8	1.7	2.7	1.7	1.1	1.0	1.0	2.6	1.7	1.5	1.8	1.8
United Kingdom	1.0	-1.1	0.4	1.8	2.5	3.7	2.8	1.9	2.1	2.0	4.9	3.2	3.0	3.7	4.0
China	9.6	8.8	10.0	10.8	10.0	6.3	2.0	4.0	3.5	4.0	6.39	5.04	7.50	7.74	7.74
India	7.2	6.6	8.0	8.5	8.8	10.5	5.0	4.5	4.5	4.5	8.5	8.0	8.0	8.0	8.0
Korea	4.2	2.2	4.2	4.5	4.5	4.7	3.0	2.5	2.5	2.5	5.6	4.5	4.3	5.1	5.3
Poland	5.3	3.6	3.7	4.9	5.5	4.3	3.2	2.6	2.4	2.7	5.8	5.3	4.6	4.5	4.5
Russia	7.1	4.5	5.7	6.4	6.5	14.2	10.2	8.6	8.6	6.5	10.8	10.0	11.5	9.5	7.5
South Africa	3.4	2.7	4.0	5.1	5.2	11.8	6.6	5.6	5.4	5.5	10.3	8.9	9.0	9.3	9.0
Turkey	2.5	0.9	4.8	5.8	6.0	10.3	9.2	7.5	6.0	5.5	16.8	14.8	13.5	11.5	10.0
Brazil	5.2	3.0	4.0	4.0	4.0	5.7	5.6	4.1	4.0	4.0	12.6	14.5	13.1	11.8	10.0
Mexico	2.2	1.1	3.2	3.7	4.2	5.0	4.7	3.4	3.2	3.1	7.8	6.6	7.9	7.1	6.6

Note: For Norway, mainland GDP.

Source: Citi forecasts.

Figure 29. Long-Term Forecasts (Calendar Average), as of October 22, 2008

	Ten-Year Yields					Exchange Rate Versus U.S. Dollar					Exchange Rate Versus Euro				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
<b>United States</b>	<b>3.75%</b>	<b>3.80%</b>	<b>4.75%</b>	<b>5.00%</b>	<b>5.00%</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>1.47</b>	<b>1.24</b>	<b>1.20</b>	<b>1.20</b>	<b>1.20</b>
<b>Japan</b>	<b>1.50</b>	<b>1.58</b>	<b>1.75</b>	<b>2.00</b>	<b>1.75</b>	<b>105</b>	<b>102</b>	<b>108</b>	<b>105</b>	<b>100</b>	<b>154</b>	<b>126</b>	<b>130</b>	<b>126</b>	<b>120</b>
<b>Euro Area<sup>a</sup></b>	<b>4.10</b>	<b>3.90</b>	<b>4.00</b>	<b>4.20</b>	<b>4.20</b>	<b>1.47</b>	<b>1.24</b>	<b>1.20</b>	<b>1.20</b>	<b>1.20</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
Canada	-0.13	-0.13	-0.20	-0.25	-0.25	1.07	1.26	1.29	1.31	1.32	1.57	1.56	1.55	1.57	1.58
Australia <sup>b</sup>	2.15	1.45	1.50	1.50	1.50	0.85	0.76	0.80	0.80	0.80	1.73	1.63	1.50	1.50	1.50
New Zealand <sup>c</sup>	2.30	1.50	1.75	1.75	1.75	0.71	0.63	0.64	0.63	0.62	2.07	1.97	1.88	1.90	1.94
Norway	4.54	4.46	4.60	4.88	4.90	5.51	6.61	6.58	6.50	6.42	8.10	8.20	7.90	7.80	7.70
Sweden	4.02	3.89	4.15	4.35	4.35	6.43	7.66	7.83	7.75	7.58	9.45	9.50	9.40	9.30	9.10
Switzerland	3.02	3.02	3.10	3.30	3.30	1.08	1.28	1.33	1.33	1.33	1.59	1.59	1.60	1.60	1.60
United Kingdom <sup>d</sup>	4.70	4.70	4.80	4.90	4.90	1.84	1.51	1.46	1.46	1.46	0.80	0.82	0.82	0.82	0.82
China <sup>e</sup>	3.6	2.5	4.0	4.5	5.0	6.94	6.63	5.95	5.60	5.45	10.2	8.2	7.1	6.7	6.5
India	7.5	7.5	8.0	8.0	8.0	45.5	45.0	43.0	41.0	40.0	66.9	55.8	51.6	49.2	48.0
Korea <sup>e</sup>	5.4	4.1	5.5	5.5	5.5	1075	1200	1150	1100	1050	1580	1488	1380	1320	1260
Poland	6.1	5.6	5.2	4.8	4.8	2.30	2.61	2.73	2.69	2.65	3.43	3.38	3.28	3.23	3.18
Russia	6.3	6.7	6.5	6.4	6.3	24.5	28.7	29.4	29.4	23.4	36.0	35.5	35.2	35.2	28.1
South Africa	9.5	9.4	9.2	9.7	9.9	8.09	9.55	10.00	10.50	11.00	11.90	11.84	12.00	12.60	13.20
Turkey	NA	NA	NA	NA	NA	1.30	1.66	1.72	1.73	1.74	1.91	2.06	2.06	2.08	2.08
Brazil	15.2	13.7	12.7	11.7	10.7	1.76	1.99	2.00	2.00	2.00	2.87	2.48	2.40	2.40	2.40
Mexico	7.8	7.5	8.4	8.0	8.0	10.8	11.4	11.4	11.1	11.1	16.6	14.3	13.4	13.2	13.4

<sup>a</sup> Ten-year bund yield. Exchange rate versus U.S. dollar shows US\$/€. <sup>b</sup> US\$/A\$. <sup>c</sup> US\$/NZ\$. <sup>d</sup> US\$/£. <sup>e</sup> 5-year government bond yield. NA Not available.

Source: Citi forecasts.

## United States

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Despite unprecedented policy efforts, the combination of tight credit, rapidly declining wealth, and sharply lower confidence has prompted an abrupt retrenchment among consumers that threatens wide spillover effects over the next few quarters. Substantially lower oil prices should mitigate downside risks, but unresolved questions about housing imbalances and the health of the financial sector continue to weigh on investor confidence at a time when income and employment are slowing.

With underlying financial supports for growth weakening and inflation pressures subsiding, Fed officials have resumed rate cutting in addition to bolstering efforts to aid liquidity. Our base case anticipates another half point reduction in the funds rate, but stubbornly weak financial conditions suggest scope for more. Without convincing signs that funding strains and barriers to capital raising are easing, renewed financial stability could remain beyond policy's reach.

Consumer retrenchment now represents the leading edge of recession. The abrupt decline in spending in the third quarter hints that the combination of weaker incomes, declining housing, and equity wealth along with reduced credit access has undermined households' sense of financial well being. Lower oil prices and moderate support from defense outlays and exports are unlikely offsets to a weakened consumer. As demand falters, output and employment will continue to weaken in a vicious feedback loop as long as financial conditions fail to provide a backstop.

Since inflation reached new highs in July, the driving forces have begun to reverse, with retreating commodity prices reinforcing a disinflationary financial setting. Small firms are backing away from earlier plans to hike prices. Surveys and breakevens suggest that long-term inflation expectations have steadied or eased with the fall in energy prices. Rising economic slack and financial restraint on demand support our baseline view that disinflation could surprise, thereby aiding investor confidence and improving prospects for eventual economic recovery.

**Figure 30. United States — Economic Forecast, 2007-09F**

					2007	2008				2009	
		2007	2008F	2009F	4Q	1Q	2Q	3QF	4QF	1QF	2QF
GDP	SAAR				-0.2%	0.9%	2.8%	-0.8%	-3.8%	0.2%	-0.9%
	YoY	2.0%	1.2%	-0.6%	2.3	2.5	2.1	0.7	-0.3	-0.4	-1.3
Consumption	SAAR				1.0	0.9	1.2	-3.0	-4.4	0.7	-0.7
	YoY	2.8	0.3	-0.8	2.2	1.5	1.3	0.0	-1.3	-1.4	-1.8
Business Investment	SAAR				3.4	2.4	2.5	-3.0	-7.2	-7.6	-8.5
	YoY	4.9	2.5	-6.2	6.4	6.2	4.2	1.3	-1.4	-3.9	-6.6
Housing Investment	SAAR				-27.0	-25.1	-13.3	-16.5	-18.4	-20.5	-11.9
	YoY	-17.9	-20.6	-14.2	-19.0	-21.3	-21.7	-20.7	-16.7	-12.4	-9.0
Government	SAAR				0.8	1.9	3.9	3.8	1.3	1.7	1.4
	YoY	2.1	2.6	2.0	2.4	2.6	2.6	2.6	2.7	2.7	2.0
Exports	SAAR				4.4	5.1	12.3	11.1	4.8	0.3	1.3
	YoY	8.4	9.3	3.7	8.9	10.1	11.0	8.2	8.3	7.0	4.3
Imports	SAAR				-2.3	-0.8	-7.3	2.2	-2.2	-4.3	1.3
	YoY	2.2	-1.8	-0.9	1.1	-1.0	-1.9	-2.1	-2.1	-2.9	-0.8
CPI	YoY	2.9	4.2	1.0	4.0	4.2	4.3	5.3	3.3	2.1	1.3
Core CPI	YoY	2.3	2.4	1.7	2.3	2.4	2.3	2.5	2.3	2.1	2.0
Unemployment Rate	%	4.6	5.7	7.8	4.8	4.9	5.3	6.0	6.6	7.1	7.7
Govt Balance (Fiscal Year)	% of GDP	-1.1	-3.0	-5.0	—	—	—	—	—	—	—
Assumed WTI Spot Price	US\$	72.4	113.2	102.7	73.3	98.0	124.0	118.0	70.9	71.2	72.6
Current Account	US\$bn	-731	-668	-479	-669	-703	-733	-711	-528	-467	-468
	% of GDP	-5.3	-4.7	-3.3	-4.8	-5.0	-5.1	-5.0	-3.7	-3.3	-3.3
S&P 500 Profits (US\$ Per Share)	YoY	-4.1	-10.9	-9.6	-28.5	-16.5	-16.1	-9.4	2.9	-12.2	-17.2

Notes: F Citi forecast. E Citi estimate. YoY Year-to-year percent change. SAAR Seasonally adjusted annual rate.

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, I/B/E/S, Treasury Department, Wall Street Journal, and Citi.

## Japan

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We expect Japan's GDP growth to sink into negative territory this quarter and next as the U.S. economy falls into a full-blown recession and its negative impact spills over to the rest of the globe. Significant downward revisions to major trading partners' economic outlooks since our last forecast update prompted us to revise down Japan's growth forecasts for coming quarters. A return to trend growth will likely be delayed until the global economy recovers in the first half of 2010.

Most demand components will likely remain lackluster in coming quarters. We expect exports to continue to decline modestly as the U.S. recession spreads to other regions, including emerging Asia. Moreover, while the recent sharp drop in oil prices should be a partial offset, declines in exports and the recent appreciation of the yen (especially against currencies other than US dollar) pose further downside risk to corporate profits. In this context, business investment will also likely decrease modestly through the first half of 2009. However, we expect private consumption to be relatively stable, as falling energy prices support the purchasing power of consumers. The government's economic package, announced in August, and a new package under discussion will add some demand in coming quarters.

Core inflation (excluding fresh food) likely will turn negative next summer, mostly because of the recent sharp decline in energy prices. Moreover, widening economic slack will probably exert disinflationary pressures on items away from food and energy. Thus, we expect that underlying inflation will remain extremely low through 2009.

We expect the Bank of Japan (BoJ) to maintain its current monetary policy stance through 2009. The BoJ didn't join other central banks in coordinated rate cuts early this month, reiterating that policy rates in Japan were already extremely low and financial conditions remained accommodative. However, we cannot rule out the possibility that the BoJ will cut interest rates if the Japanese economy continues to surprise to the downside.

Figure 31. Japan — Economic Forecast, 2007-09F

		2007					2008				2009	
		2007	2008F	2009F	3Q	4Q	1Q	2Q	3QF	4QF	1QF	2QF
Real GDP	YoY	2.1%	0.6%	-0.3%	1.8%	1.4%	1.2%	0.8%	0.6%	-0.1%	-1.0%	-0.2%
	SAAR				1.0	2.4	2.8	-3.0	0.2	-0.4	-0.6	0.1
Domestic Demand	YoY	0.9	-0.3	0.0	0.7	0.1	-0.2	-0.4	-0.2	-0.5	-0.8	0.0
	SAAR				-0.9	1.1	1.0	-2.7	-0.2	-0.2	-0.1	0.4
Private Consumption	YoY	1.5	0.7	0.5	1.8	1.2	1.3	0.6	0.5	0.3	-0.3	0.5
	SAAR				0.0	1.4	2.8	-1.9	-0.4	0.7	0.6	0.9
Business Investment	YoY	1.8	-0.7	-2.3	0.4	-0.2	-0.6	0.9	-0.6	-2.5	-3.0	-3.1
	SAAR				1.7	4.2	-0.5	-1.9	-4.0	-3.5	-2.7	-2.1
Housing Investment	YoY	-9.3	-10.5	-0.3	-11.3	-21.5	-16.6	-15.9	-8.5	1.3	-3.2	0.7
Public Investment	YoY	-2.5	-3.6	-1.2	0.7	-1.5	-3.5	-6.0	-1.9	-3.0	-4.3	1.5
Exports	YoY	8.6	5.6	-1.3	8.5	10.4	11.1	6.2	4.4	1.3	-2.6	-0.3
	SAAR				10.9	11.0	14.3	-9.7	3.6	-1.5	-2.1	-0.9
Imports	YoY	1.7	0.0	0.2	1.5	2.2	2.9	-0.9	-0.6	-1.3	-2.1	0.9
	SAAR				-1.2	3.3	4.7	-9.9	0.1	0.2	1.8	1.7
Core CPI	YoY	0.0	1.6	0.4	-0.1	0.4	1.0	1.4	2.3	1.6	1.3	0.7
Nominal GDP	YoY	1.3	-0.4	0.2	1.1	0.3	-0.3	-0.8	-0.6	0.0	-0.6	0.5
Current Account	¥ tn	25.0	19.2	20.5	25.2	24.9	22.4	19.3	17.4	17.8	19.2	21.2
	% of GDP	4.8	3.8	4.0	4.9	4.9	4.3	3.8	3.4	3.5	3.8	4.1
Unemployment Rate	%	3.9	4.1	4.6	3.8	3.8	3.9	4.0	4.2	4.4	4.5	4.6
Industrial Production	YoY	3.0	-0.6	-2.6	2.8	3.4	2.3	1.0	-1.7	-3.9	-3.8	-3.4
Corporate Profits (Fiscal Year)	YoY	3.5	-11.0	-1.0								
General Govt. Balance (Fiscal Year)	% of GDP	-3.3	-4.3	-4.3								

F Citi forecast. SAAR Seasonally adjusted annual rate. YoY Year-on-year percentage change. Corporate profits are TSE-I non-financials consolidated recurring profits.

Source: Citi.

## Euro Area

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We have revised down our GDP forecast again and now expect a contraction in 2009 GDP. Given the further escalation of the financial crisis and a sharper deterioration in global demand, the recession is likely to be deeper than we previously expected. The sharp fall in sentiment indicators suggests that domestic demand deteriorated further. We expect a drop in capital expenditures including a sharp construction correction in some member countries. In addition, rising unemployment signals that consumption will stay weak even when inflationary headwinds ease.

In our view, national government measures to provide capital and guarantees on part of banks' debts will probably help to ease strains in the banking sector and alleviate the financial crisis. But it is uncertain whether these actions are large enough to stabilize markets, and they cannot prevent an extended recession. While the measures themselves will have little impact on the Stability and Growth Pact's (SGP) general government deficit ratio, we expect a large increase in the deficit caused by the cyclical deterioration and modest discretionary fiscal easing in several countries.

Inflation declined for two consecutive months owing to falling oil prices and benign base effects. Inflation expectations also fell sharply recently, highlighting that the weak economic outlook has substantially reduced the risks for inflation. Average inflation probably will be slightly higher than 2% next year, but inflation rates are likely to fall sharply in coming months and move below 2% in the second half of 2009.

The ECB is now more relaxed regarding inflation and more concerned that the financial market crisis may have severe negative consequences for the economy. In line with this new assessment, the ECB has started to cut interest rates and substantially expand liquidity provisions. We expect more interest rate cuts: By the end of this year (or soon after), ECB rates are likely to fall by 100 basis points to 2.75%. Rate cuts are likely to continue in 2009 when we expect a trough around 2%.

**Figure 32. Euro Area — Economic Forecast, 2007-09F**

		2007			2008					2009	
		2007	2008F	2009F	4Q	1Q	2Q	3QF	4QF	1QF	2QF
Real GDP	YoY	2.7%	1.1%	-0.2%	2.1%	2.1%	1.4%	0.6%	0.1%	-0.6%	-0.5%
	SAAR				1.4	2.7	-0.8	-0.8	-0.5	-0.5	-0.1
Final Domestic Demand	YoY	2.3	0.9	0.4	1.9	1.8	1.1	0.4	0.2	-0.1	0.2
Private Consumption	YoY	1.6	0.3	0.3	1.3	1.2	0.3	-0.2	-0.2	0.0	0.2
Government Consumption	YoY	2.3	1.6	1.8	2.1	1.4	1.7	1.6	1.8	1.9	1.8
Fixed Investment	YoY	4.2	1.7	-0.8	3.2	3.7	2.5	0.9	-0.4	-2.1	-1.2
- Business Equipment	YoY	5.0	1.5	-1.5	4.8	4.7	2.9	0.8	-1.1	-2.3	-2.2
- Construction	YoY	3.5	1.6	-1.6	1.7	2.8	2.1	1.2	0.2	-2.4	-1.4
Stocks (contrib. to GDP)	YoY	0.1	0.0	0.0	0.2	-0.1	0.1	-0.1	0.2	-0.1	0.0
Exports	YoY	6.0	3.0	0.1	4.0	5.3	3.7	1.8	1.3	-0.7	-0.3
Imports	YoY	5.4	2.5	1.3	3.9	4.5	3.2	0.9	1.6	0.2	1.1
CPI	YoY	2.1	3.4	2.1	2.9	3.4	3.6	3.8	2.8	2.4	2.2
Core CPI	YoY	2.0	2.4	2.2	2.3	2.5	2.5	2.5	2.3	2.0	2.4
CPI Ex Energy and Food	YoY	1.9	1.8	2.0	1.9	1.8	1.7	1.8	1.8	1.9	2.1
Unemployment Rate	%	7.4	7.4	8.1	7.3	7.2	7.4	7.5	7.6	7.8	7.9
Current Account Balance	€bn	24.8	-35	-45							
	% of GDP	0.3	-0.4	-0.6							
General Gov't Balance	€bn	-55	-125	-250							
	% of GDP	-0.6	-1.4	-2.7							
Public Debt	% of GDP	66.3	68.8	70.4							
Gross Operating Surplus	YoY	5.9	2.5	-1.5							
Oil Prices (Brent)	\$/barrel	72.5	101.7	77.5	88.7	97	122.7	116.6	71.3	76.1	75.9

F Citi forecast. SAAR Seasonally adjusted annual rate. YoY Year-to-year growth rate. The annual forecasts for GDP are consistent with the quarterly (seasonally and work-day adjusted) figures. Core CPI is defined as ex energy and unprocessed food. Sources: Eurostat, national government sources and Citi.



## Germany

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Germany is probably now in recession and 2009 GDP is likely to contract for the first time since 2003. The export sector is likely to be hit hard by the slowdown in foreign demand, especially from other EU member countries. This deterioration in export momentum probably will dampen capital expenditures and job creation by generally healthy German nonfinancial companies. Compared to other euro area countries, the direct impact of the financial crisis on the economy is probably small, because the private sector debt ratio is modest and declined in recent years. However, the government's €480 billion bank stabilization fund highlights the fragility of the German banking system. Despite this package, banks are likely to tighten lending standards to households and companies. In addition to the bank rescue plan, the grand coalition is now considering some other plans to support the economy. In an environment of increasing unemployment, these measures are likely to start soon.

## France

The French economy is suffering from tighter financial conditions caused by the financial crisis, lower global demand, and the housing correction. The French government already injected fresh capital into the banking sector and provided guarantees for new bank debt, but financing conditions will probably tighten further. After the credit expansion in recent years, French companies and households probably face larger constraints than their German neighbors. To stimulate the economy, the French government intends to inject fresh capital into the industrial sector as well. Because such "nationalization" measures do not affect the general government deficit under the SGP, this seems to be a way to avoid problems with the EU Commission. However, France is entering the cyclical downturn with an already high deficit ratio. As such, we expect France will breach the SGP's 3% deficit mark in 2008 and 2009.

**Figure 33. Germany, France — Economic Forecast, 2007-09F**

		Germany			France		
		2007	2008F	2009F	2007	2008F	2009F
Real GDP	YoY	2.6%	1.4%	-0.2%	2.1%	0.9%	-0.2%
Final Domestic Demand	YoY	1.2	0.7	0.5	2.7	1.3	0.7
Private Consumption	YoY	-0.3	-0.7	0.6	2.4	1.2	0.6
Fixed Investment	YoY	4.8	3.4	-0.4	4.9	1.3	-0.1
Exports	YoY	7.7	4.4	1.1	3.2	1.4	-0.7
Imports	YoY	5.2	3.3	2.8	5.9	2.4	1.9
CPI	YoY	2.3	2.7	1.8	1.5	2.9	1.3
Unemployment Rate	%	8.4	7.4	8.1	8.0	7.4	8.2
Current Account	€bn	184.1	157.5	93.2	-22.7	-40.7	-48.7
	% of GDP	7.6	6.3	3.7	-1.4	-2.5	-2.8
General Govt. Balance	€bn	3.3	-12.2	-49.7	-50.3	-62.3	-74.7
	% of GDP	-0.2	-0.5	-2.0	-2.7	-3.2	-3.8
General Govt. Debt	% of GDP	65.1	66.9	67.9	63.9	67.6	70.6
Gross Trading Profits	YoY	4.4	2.5	-1.0	5.3	0.4	-2.0

F Citi forecast. YoY Year-to-year growth rate. Note: The German annual figures are derived from quarterly Bundesbank data, and thus, adjusted for working days. The forecasts for GDP and its components are calendar adjusted. Sources: Deutsche Bundesbank, Statistisches Bundesamt, and Citi.

## United Kingdom

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The prospects for the U.K. economy are grim, with a fairly severe recession starting to unfold. Deleveraging and retrenchment are reflected in plunging house values, weakness in private consumption, housebuilding, and investment. We now seem to be in a vicious circle: recession, asset price declines, and financial stress are mutually reinforcing. We expect GDP to fall by about 1.0% in 2009, with domestic demand falling by about 2.0%, which would be similar to the 1974, 1981, and 1991 recessions.

The colossal public sector bailout for banks — recapitalization of banks, liquidity injections, and guarantees for short- and medium-term bank debt — greatly reduces risks of a complete meltdown of the banking system. While this reduces the more extreme downside risks to the economy, it does not alter the key point that the economy is heading for a severe recession. Indeed, the fact that the banks have needed such massive emergency help highlights the depths of the financial crisis and will encourage extended retrenchment among banks, leveraged investors, households, and businesses. Given the extent to which the U.K. economy and asset prices have been propelled by rising debt in recent years, such retrenchment inevitably will produce an extended period of extreme weakness. Unemployment is now rising quickly. However, most of the pain from the economic downturn — in terms of job losses, house price declines, and business failures — probably still lies ahead.

CPI inflation hit 5.2% year to year in September, the highest since the early 1990s and well above the 2.0% target. But with the recession squeezing margins and labor costs, and with commodity prices plunging, U.K. inflation is likely to fall sharply in the year ahead, dropping below the target in the second half of 2009. The MPC is likely to continue to cut rates sharply, and we expect a 50 basis point cut at the November meeting (to 4.0%) with rates down to 3.0% by mid-2009 (and perhaps even lower). We expect an extended period of low rates in the next few years.

**Figure 34. United Kingdom — Economic Forecast, 2007-09F**

		2007			2008					2009	
		2007	2008F	2009F	4Q	1Q	2Q	3Q	4QF	1Q	2Q
Real GDP	YoY	3.0%	1.0%	-1.1%	2.9%	2.4%	1.5%	0.5%	-0.4%	-1.0%	-1.3%
	SAAR				2.2	1.1	0.0	-1.3	-1.2	-1.6	-1.1
Domestic Demand (Incl. Inventories)	YoY	3.6	1.0	-2.0	3.5	2.4	1.9	0.5	-0.8	-1.6	-2.0
	SAAR				2.2	-0.1	-0.6	0.5	-3.0	-3.1	-2.3
Consumption	YoY	3.0	1.9	-0.5	3.6	3.6	2.5	1.2	0.4	-0.7	-0.6
	SAAR				2.5	3.4	-0.5	-0.6	-0.6	-1.0	0.0
Investment	YoY	7.1	-3.0	-9.5	3.9	0.3	-2.1	-3.8	-6.2	-7.1	-8.2
	SAAR				7.2	-7.7	-10.7	-3.0	-3.2	-11.0	-15.1
Exports	YoY	-4.5	1.6	5.0	2.5	2.9	1.9	-0.6	2.3	2.8	4.2
	SAAR				-2.8	3.0	-0.2	-2.3	8.9	5.1	5.6
Imports	YoY	-1.9	1.7	1.0	4.7	3.4	3.1	-0.3	0.5	0.5	1.3
	SAAR				-1.4	-1.3	-2.1	4.0	1.5	-0.9	0.7
Unemployment Rate	%	5.4	5.6	7.0	5.2	5.2	5.4	5.9	6.1	6.4	6.8
CPI Inflation	YoY	2.3	3.7	2.8	2.1	2.4	3.4	4.8	4.3	4.1	3.1
Merch. Trade	£bn	-89.3	-93.5	-74.8	-24.1	-23.2	-23.1	-25.3	-21.9	-16.9	-19.2
	% of GDP	-6.4	-6.4	-5.0	-6.8	-6.4	-6.4	-6.9	-6.0	-5.4	-5.2
Current Account	£bn	-56.0	-43.0	-33.8	-10.8	-7.4	-12.6	-13.5	-9.5	-10.1	-9.1
	% of GDP	-4.0	-3.0	-2.3	-3.1	-2.0	-3.5	-3.7	-2.6	-2.7	-2.5
PSNB	£bn FY	-36.3	-60.9	-90.9							
	% of GDP	-2.6	-4.2	-6.1							
General Govt. Balance	% of GDP	-2.8	-4.0	-5.8							
Public Debt	% of GDP	42.3	44.5	49.5							
Gross Nonoil Trading Profits	YoY	9.7	3.0	0.0							

F Citi forecast. SAAR Seasonally adjusted annual rate. YoY Year-on-year growth rate. Note: Investment excludes inventories. Source: Citi.

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## Switzerland

GDP growth will slow sharply in coming quarters, reflecting the credit crunch and the accompanied global growth slowdown. Inflation and inflation expectations currently remain high, but with inflation past its peak and likely to fall short of the upper limit for price stability of 2% by mid-2009, the Swiss National Bank (SNB) is set to ease further in coming quarters. As part of the coordinated rate action, the SNB cut the center of its target band for three-month LIBOR by 25 basis points to 2.50%.

## Sweden

The widening of the financial crisis will reinforce the already deteriorating Swedish economy. Inflationary pressures, combined with lower energy prices, are likely to ease markedly in the future. The Riksbank participated in the coordinated rate action, cutting the key policy rate by 50 basis points to 4.25%, and marked down the key policy rate by another 50bp at the October policy meeting to alleviate the negative effects of the crisis. Given the Bank's frontloaded approach, additional near-term easing is in the cards.

## Denmark

Recent activity data suggest that the Danish economy is experiencing a sharp slowdown, with a recession being a close call. Six minor banks already have been bought, forced into mergers, or bailed out. The government recently passed a rescue plan for Danish banks to secure financial stability in Denmark. The central bank unilaterally raised the interest rate in early October and chose (rather unusually) not to shadow the ECB rate cut in the coordinated action owing to currency worries. As such, the spread between the Danish central bank's lending rate and the ECB marginal rate widened by 90 basis points in only two days.

## Norway

Economic activity in the mainland economy has slowed markedly and further weakness lies ahead. However, given its exposure to oil production, the economy is nowhere near experiencing a recession like other European countries. Triggered by the coordinated rate action by major central banks, the Norges Bank held an extra interest rate meeting two weeks prior to its schedule, cutting the key policy rate by 50 basis points to 5.25%. Further near-term easing is expected, but there are still good arguments for the central bank to move gradually: Capacity pressures remain high, inflation is elevated, and the NOK is weak. More importantly, the Bank and the government have put forward a crisis package to improve liquidity among banks.

**Figure 35. Switzerland, Sweden, Denmark, and Norway — Economic Forecast, 2007-09F**

		Switzerland			Sweden			Denmark			Norway		
		2007	2008F	2009F	2007	2008F	2009F	2007	2008F	2009F	2007	2008F	2009F
Real GDP <sup>a</sup>	YoY	3.3%	1.7%	0.1%	2.7%	0.8%	0.4%	1.7%	0.4%	0.1%	6.3%	2.7%	1.7%
Public Consumption	YoY	-1.1	-0.8	0.9	1.1	0.7	2.0	1.6	1.7	1.8	3.6	3.3	3.3
Private Consumption	YoY	2.0	1.8	0.6	3.0	1.3	0.5	2.3	1.6	0.8	6.5	2.3	1.9
Investment (Ex Stocks)	YoY	5.4	-0.8	-4.1	8.0	2.6	-1.5	5.9	-0.1	-1.8	9.5	3.9	1.6
Exports	YoY	9.4	4.0	-0.1	6.0	2.8	0.7	1.9	2.9	2.3	2.7	2.4	1.9
Imports	YoY	6.0	0.7	-1.4	9.6	4.4	1.4	3.8	3.6	2.7	8.8	5.2	3.0
CPI (Average)	YoY	0.7	2.7	1.7	2.2	3.6	2.3	1.7	3.5	2.5	0.7	3.7	2.8
Unemployment Rate	%				6.1	6.2	6.9	2.8	1.8	2.3	2.6	2.5	3.0
Current Account	% of GDP	13.3	13.4	12.0	8.5	7.6	7.9	1.2	1.0	1.3	15.4	18.0	18.0
General Govt Balance	% of GDP				3.4	2.7	1.1	4.4	4.1	3.5	17.3	18.0	17.8
General Govt Debt	% of GDP				41.0	37.0	35.0	26.0	21.0	17.0	41.0	37.0	37.0

<sup>a</sup> For Norway, mainland GDP. F Citi forecast. YoY Year-on-year growth rate. Source: Citi.

## Canada

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Important downside risks to the Canadian economy have materialized. Canadian financial conditions have soured, exports are impaired by flagging U.S. domestic demand, and commodity price declines and volatility are diminishing terms of trade. Recessionary conditions and a benign inflation outlook suggest that the Bank of Canada (BoC) may reduce the policy rate target to 1.00% before spring of next year.

Real GDP is forecast to decline on an annual basis this quarter, marking the first negative print in 17 years. Businesses have curbed investment and hiring, consumer spending is moderating, and housing indicators are softening. The outlook for 2009 also remains dim. Retrenchment among U.S. consumers will continue to weigh on Canadian exports, and the reduction in global tastes for commodities will dampen profits for key industries. The depreciation in the CAD will provide only a partial offset.

Canada continues to be buffeted by global financial market dislocations, hampering recovery prospects. The domestic credit environment is restrictive and lending costs are elevated. Internal pressures prompted the BoC to promise to offer an extraordinary amount of liquidity to a broader spectrum of market players on a daily and term basis. The BoC raised the cap on its currency swap facility with the United States and welcomed actions by governments to recapitalize key financial institutions. The Bank also cut the policy rate by 50 basis points in a coordinated effort by central banks worldwide to stabilize markets. Given the strains on Canadian financial markets and the worsening growth profile, the BoC has further scope to cut rates over the next few policy meetings.

The one optimistic development for Canada is that inflation prospects are improving. The sharp retreat in food and energy commodity prices significantly lowered the trajectory for headline consumer inflation, reining in inflation expectations. The unwinding of 2008's commodity price surge, softer demand, and limited business pricing power also portend a relatively benign core inflation path ahead.

**Figure 36. Canada — Economic Forecast, 2007-09F**

		2007			2008F					2009	
		2007	2008F	2009F	4Q	1Q	2Q	3QF	4QF	1QF	2QF
Real GDP	YoY	2.7%	0.5%	0.1%	2.8%	1.6%	0.7%	0.1%	-0.3%	-0.2%	-0.3%
	SAAR				0.8	-0.8	0.3	0.0	-0.8	-0.4	0.1
Final Domestic Demand	YoY	4.2	3.4	2.0	4.9	4.6	3.9	3.2	2.1	1.9	1.9
	SAAR				6.3	2.3	2.0	2.4	1.7	1.6	2.1
Private Consumption	YoY	4.5	3.7	1.9	5.3	5.1	4.3	3.5	2.0	1.7	1.6
	SAAR				7.5	3.1	2.4	1.0	1.5	1.7	2.2
Government Spending	YoY	4.2	4.6	3.2	5.1	5.0	5.2	4.2	3.9	3.7	3.3
	SAAR				5.1	3.2	4.7	3.8	3.8	2.5	3.0
Private Fixed Investment	YoY	3.4	1.2	0.7	3.7	2.9	1.3	1.0	-0.1	0.3	1.1
	SAAR				4.2	-1.2	-2.3	3.3	0.1	0.2	0.8
Exports	YoY	1.0	-4.5	-2.9	-1.4	-2.6	-4.7	-5.7	-5.2	-5.1	-4.2
	SAAR				-7.4	-4.1	-5.9	-5.5	-5.2	-3.8	-2.1
Imports	YoY	5.5	2.6	2.3	8.6	5.8	5.1	0.4	-0.7	1.8	1.8
	SAAR				8.6	-9.0	2.3	0.5	4.0	0.5	2.2
CPI	YoY	2.1	2.5	1.6	2.4	1.8	2.4	3.4	2.4	2.5	1.4
Core CPI	YoY	2.1	1.6	2.0	1.6	1.4	1.5	1.6	2.0	2.0	1.9
Unemployment Rate	%	6.0	6.1	6.9	5.9	5.9	6.1	6.1	6.4	6.7	7.0
Current Account Balance, SA	C\$bn	13.6	2.4	-65.3	3.1	17.8	27.0	3.4	-38.6	-50.8	-64.3
	% of GDP	0.9	0.2	-4.1	0.2	1.1	1.7	0.2	-2.4	-3.2	-4.0
Net Exports (Pct. Contrib.)		-1.9	-2.9	-2.1	-5.3	1.6	-2.8	-2.3	-3.7	-1.6	-1.7
Inventories (Pct. Contrib.)		0.2	-0.3	0.2	0.0	-4.4	1.4	0.9	1.0	-0.5	-0.4
Budget Balance	% of GDP	0.2	0.1	0.1							

F Citi forecast. YoY Year-to-year percent change. SAAR Seasonally adjusted annual rate. Sources: Statistics Canada and Citi.

## Australia and New Zealand

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The policy focus in Australia has shifted to stimulating economic growth, despite still high inflation. The Reserve Bank of Australia (RBA) cut official rates by 100 basis points, to 6.0% earlier this month, and the federal government has announced a fiscal stimulus of around 1% of GDP. Another large cut (likely 50 basis points) in official interest rates is expected next month. These front-loaded measures while unemployment is still low are likely to boost household spending. Importantly, nearly all of the easing so far has been passed through to mortgage holders; interbank lending rates have fallen more than in the United States and loan arrears remain low.

However, the outlook for business investment has deteriorated, given ongoing deleveraging and falling commodity prices. Overall, we have again marked down our economic forecasts and now expect an extended period of sub-2% growth with the risks still to the downside. It is likely that Australia will avoid the technical definition of recession, but this will be of small comfort as growth slumps from around 4% to near 1%. The sharp fall in the AUD is also acting as a buffer to the global slowdown, but the extreme volatility in the AUD and other markets is weighing on confidence.

A recession in New Zealand was confirmed with a 0.2% contraction in second-quarter GDP, and we expect another negative print in third quarter with a slight bounce in the fourth. Economic activity will remain subdued in 2009, and there are early signs that inflation will retreat quicker than previously expected. Monetary conditions remain tighter than previous recessions and need to shift to more accommodative levels soon if the economy is to avoid a deep recession. On that score, the Reserve Bank of New Zealand (RBNZ) made a sizable 100-basis-point cut in the OCR on October 23. Looking ahead, we expect more aggressive easing from the RBNZ with another 50-basis-point cut at the December OCR review and another 150 basis points of easing in 2009.

**Figure 37. Australia and New Zealand — Economic Forecast, 2007-2009F**

	Australia			New Zealand		
	2007	2008F	2009F	2007	2008F	2009F
Real GDP <sup>a</sup>	4.2%	2.4%	1.7%	3.1%	0.5%	1.5%
Real GDP (4Q versus 4Q)	4.2	1.3	2.2	3.6	-0.8	2.8
Real Final Domestic Demand	5.3	3.8	2.5	-	-	-
Consumption	4.5	2.7	2.3	-	-	-
Govt. Current & Capital Spending	2.9	5.5	3.5	-	-	-
Housing Investment	3.1	-0.1	2.8	-	-	-
Business Investment	13.1	8.0	2.0	-	-	-
Exports of Goods & Services	3.2	5.1	3.1	-	-	-
Imports of Goods & Services	10.8	10.7	4.2	-	-	-
CPI	2.3	4.5	3.6	2.4	4.3	3.7
CPI (4Q versus 4Q)	3.0	4.5	3.4	3.2	4.8	2.9
Unemployment	4.4	4.2	4.8	3.4	4.2	5.0
Merch. Trade, BOP (Local Currency, Bn)	-18.6	-1.5	15.3	-	-	-
Current Account, (Local Currency, Bn)	-67.2	-54.8	-42.6	-	-	-
Percent of GDP	-6.2	-4.7	-3.4	-	-	-
Budget Balance <sup>b</sup> (Local Currency, Bn)	17.2	16.8	10.0	6.1	5.5	-0.6
Percent of GDP	1.6	1.5	0.8	3.6	3.1	0.0
General Govt. Debt (% of GDP) <sup>c</sup>	-2.9	-3.8	-2.7	4.4	0.0	2.8
Gross Trading Profits <sup>d</sup>	13.3	13.6	3.9	NA	NA	Na

BOP Balance of payments basis. CPI Consumer Price Index. F Citigroup forecast. NA Not available. <sup>a</sup>Averaged-based GDP in Australia; Production in New Zealand. <sup>b</sup>Fiscal year ending June.

Australia's underlying cash balance <sup>c</sup>Australia and New Zealand Budget definition and forecasts. — debt equals an asset. <sup>d</sup>Company gross operating surplus. Source: Citi.

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## China: Making Every Effort to Support Growth

Real GDP growth slowed to 9% in the third quarter from 10.1% in the second, causing widespread worries about further deceleration. In particular, growth of industrial production declined to 11.4% in September from 12.8% in August. This may put downward pressure on global commodity markets at a time when the industrial economies are already slowing rapidly. Fears of weakening trade volumes generally are reflected in the collapse of the Baltic Freight Index to levels not seen since 2002. Meanwhile, September CPI inflation edged down to 4.6% from 4.8%. Even producer prices dropped significantly. We suspect that the authorities will announce a set of policies to support growth, most likely around the upcoming Central Economic Policy Conference in late October.

The People's Bank of China (PBOC) has already effectively ended its policy tightening bias with two rate cuts and two reductions in reserve requirements within three weeks in September and October. The credit control begun late last year is probably gone. The PBOC has also indicated that it will slow the pace of currency appreciation in the near term. We expect PBOC to cut the policy rates aggressively, probably twice every quarter in the coming three quarters bringing the base lending rate down to 5%, and to reduce reserve requirements by three percentage points to 13% by mid-2009.

The world's attention, however, is focused on possible fiscal measures. We expect the government to increase spending beyond what has already been announced, especially in areas of education, health care, low-rental housing and social security. It will probably also boost investment in accordance with rural revitalization policy, regional development strategy and industrial policy. Meanwhile, the authorities may extend the value-added tax reform to promote investment and reduce corporate income taxes to encourage resource saving and pollution reduction.

While we agree that there exist significant risk of a further growth slowdown, we believe that China should be able to maintain 8.8% GDP growth in 2009 for several reasons. First, China is still well protected from the external crises, given its capital account control and large foreign reserves. Second, the expected aggressive monetary easing should help cushion downside risks. Third, Chinese banks remain well capitalized and liquid. Finally, with rough fiscal balance, the government still has ammunition to boost domestic demand.

**Figure 38. China — Economic Forecast, 2007-09F**

		2007	2008F	2009F
Real GDP	YoY	11.9%	9.6%	8.8%
Real Final Domestic Demand	YoY	11.0	13.3	13.2
Consumption	YoY	10.7	12.6	10.3
Fixed Capital Formation	YoY	15.3	15.0	13.8
Exports	YoY	25.7	21.5	13.8
Imports	YoY	20.8	26.6	18.5
Industrial Production	YoY	18.5	14.7	10.2
Merchandise Trade Balance	\$bn	262.2	269.8	250.2
FX Reserves	\$bn	1528	1950	2050
Current Account	% of GDP	10.8	8.5	7.0
Fiscal Balance	% of GDP	0.3	-0.3	-1.0
General Govt. Debt	% of GDP	53.2	54.8	50.0
Urban Unemployment Rate	%	4.0	4.0	4.1
CPI	YoY	4.8	6.3	2.0
Exchange Rate	CNY/\$	7.61	6.94	6.63
One-Year Base Lending Rate	%, p.e.	7.47	6.39	5.04

Source: Citi estimates.



## Emerging Markets: Examining the Turmoil

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*Emerging markets have been sucked into the financial crisis.*

The largest drop in G3 economic activity since the early 1980s and the worst market performance since the 1930s have metastasized to emerging markets. The rise in risk associated with soaring volatility measures has weakened almost all emerging market assets, with a number of vulnerable emerging market countries among the worst performers globally. No asset class has been spared.

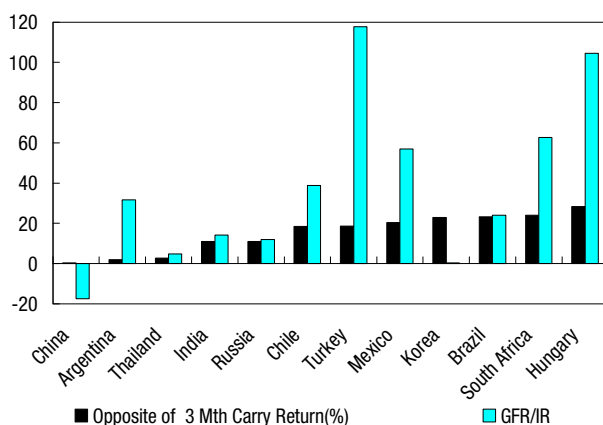
Here, we analyze the performance of emerging market currencies, stocks, sovereign debt, and local rates. Much of this performance can be tied to shifting perceptions of risk and associated portfolio shifts against a backdrop of plummeting expectations for growth. We then turn to four of the key macroeconomic channels that will drive future economic and market performance: the strength of international trade services ties; the implications of shifting terms of trade; the vulnerability to continued portfolio shifts and refinancing requirements; and the capacity and scope for prudent, constructive policy responses.

### Recent Market Performance: Expectations Crumble, Risks Rise

*Currency moves have been consistent with risk reduction and exposure to external financing.*

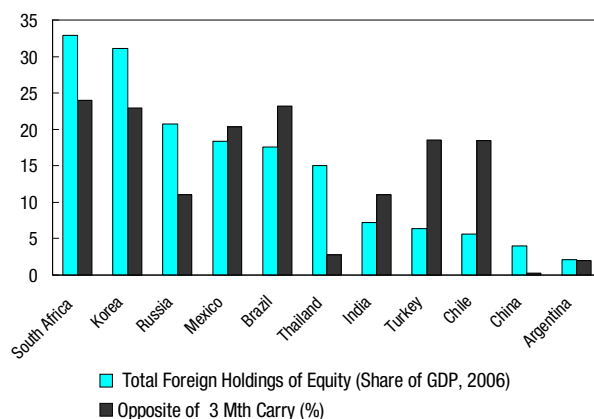
Exchange rate volatility has returned to emerging markets, volatility that may test governments' resolves to combine floating exchange rates with inflation targeting. Spot returns in a number of key, often high-yielding emerging markets are down sharply. In the past three months, the currencies of Brazil, South Africa, Hungary, Poland, Turkey, Czech Republic, and Mexico have all been off by 25% or more. These currency moves are generally consistent with the unwinding of carry trades. However, currencies also have been affected by the exposure of countries to risks from high gross financing requirements relative to reserves or from high foreign participation in local markets (see Figures 39 and 40). The implied shifts in portfolios have become an increasingly important element of emerging market capital flows. With the exception of Korea, Asian currencies have lost less ground against the U.S. dollar than the major CEEMEA and Latin America units, probably reflecting their better financing outlook.

**Figure 39. Opposite of Carry Return in Selected EM Currencies and Gross Financing Requirements as a Percentage of GDP (2006)**



Note: Carry Return as annual percent, three months to October 17, 2008.  
Sources: Bloomberg, Fitch, and Citi.

**Figure 40. Opposite of Carry Return in Selected EM Currencies and Foreign Holdings of Equity Shares as a Percentage of GDP (2006)**



Note: Carry Return as annual percent, three months to October 17, 2008.  
Sources: Bloomberg, IMF, and Citi.



*Equity markets have been especially hard hit on evidence of slower trade and domestic demand.*

Emerging stock markets are among the worst performing in the world, with Brazil, Czech, Hungary, Ukraine, and Russia falling in the top ten in this category, all down at least 50% year to date. The recent acceleration of these declines may reflect not just the retreat from risk, but also the deceleration in emerging market growth. In the second quarter, emerging market seasonally adjusted final domestic demand grew at just 2.2% per year.<sup>2</sup> Third-quarter nominal Chinese GDP growth was up only 6% at a seasonally adjusted annualized rate. Even with deflation over the quarter, this is some 22 percentage points slower than the nominal growth at the end of last year. Such a rapid slowdown poses further risks to commodity prices and global demand, as most forecasters have Chinese growth at about 9% next year, implying no real slowdown from today's real growth rates.

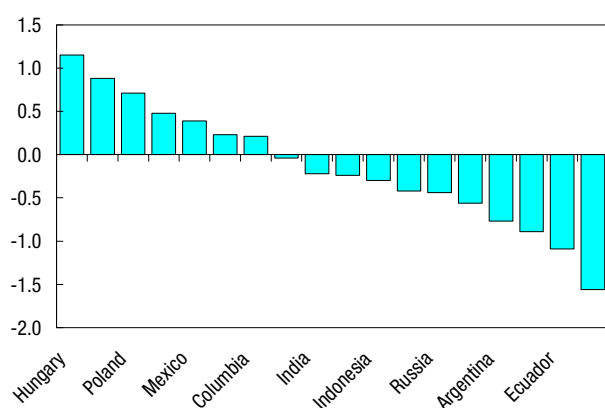
*Bond spreads have widened most in countries with incoherent macro policies.*

External bond spreads have risen to the highest levels since just after the Brazil scare in 2002. The ESBI itself has added some 300 basis points from its lows during the summer of 2007. The worst performers, though, are countries where market confidence is being tested and/or where incoherent macro policies had been fostered by elevated commodity prices early in the year. Ecuador, Venezuela, Pakistan, and Argentina are all trading wide of 1,600. Measures of the rule of law and regulatory quality may be useful proxies for the coherence of macro policies. Using the rankings collected by the World Bank, all of the major movers in sovereign spreads are among the poorest in regulatory quality (see Figure 41). The quality of regulation may also increase risks to equity prices from capital controls, a feature of numerous past emerging market crises.

*More flexible exchange rates have lowered local rate volatility...*

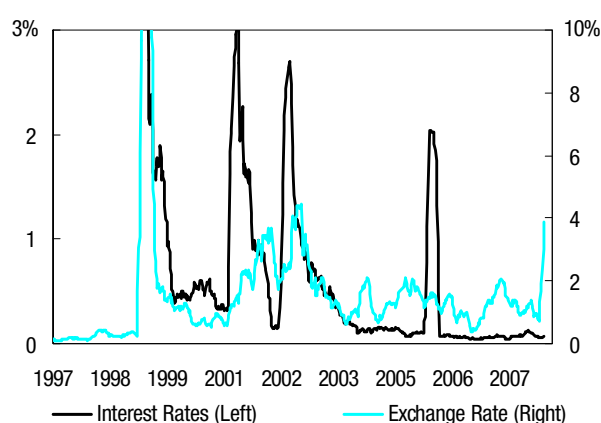
In local markets, interest rates have also suffered, even as greater currency flexibility provided some cushion. But here the benefits of more flexible foreign exchange rates and, in many countries, high international reserves are more evident. Long-term interest rates in various countries have dropped over the year even as foreign exchange volatility has spiked well above the levels of recent years (see Figure 42). As of October 17, ten-year yields are up markedly in Indonesia, Vietnam, Brazil, South Africa, and Turkey, while remaining essentially unchanged in the United States and falling in China, Mexico, Thailand, and Korea.

**Figure 41. Selected EM Countries — Regulatory Quality, 2007**



Source: World Bank, <http://info.worldbank.org/governance/wqi>.

**Figure 42. Brazil — Interest and Currency Volatility, Jan 07–17 Oct 08**



Sources: Bloomberg and Citi.

<sup>2</sup> This figure includes GDP data from Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Croatia, Czech Republic, Hong Kong, Hungary, Indonesia, Latvia, Malaysia, Mexico, Philippines, Poland, Russia, Singapore, Slovakia, South Africa, South Korea, Taiwan, Thailand, Turkey, and Ukraine. It excludes China and India as neither country provides quarterly GDP by expenditure in a timely fashion.

*...but the shifts in local curves have varied with concerns about inflation.*

These domestic rate movements seem to be driven more by concerns about the pass-through effects of current foreign exchange movements and the respective central banks' willingness to counter those effects. This is not a complete picture, though, as long rates have moved up sharply in Brazil and Indonesia, for example, even as central bank rhetoric has remained hawkish and the central banks have hiked rates. The missing puzzle piece is domestic demand and overall output growth. Demand until recently has been growing faster than potential in most countries, with the sharpest increases in long-term rates. In Brazil, it may also reflect foreign investor flight from the domestic market. With inflation pressures and aggregate demand fading fast, long rates in Brazil and probably Indonesia will likely ease back.

### **Examining the Channels for Further Turmoil**

All of this analysis is largely focused on the existing vulnerabilities in emerging markets, something we first wrote about almost a year ago in laying out our reasons for skepticism about decoupling. At that time we had highlighted economic openness, the strength of public, financial, and private balance sheets, and the cyclical positions of economies as key determinants of vulnerability.

In practice, the channels for vulnerability have proved more numerous than we thought. Trade linkages have become more prominent as expectations about global growth tumbles and emerging market domestic demand weakens. Shifts in the terms of trade, especially commodity prices, also have moved to center stage to a much larger degree than we had expected initially. But, more crucially, the process of deleveraging in global financial institutions has created more pressure on balance sheets and generated more focus on capital flows and capital flight. Finally, the magnitude of the dislocation has brought to the fore the competency and predictability of policymaking, not just the scope for adjustment that had been our earlier focus. In what follows, we lay out how we expect this broader and deeper array of macro influences to affect the vulnerabilities of emerging market countries and their assets.

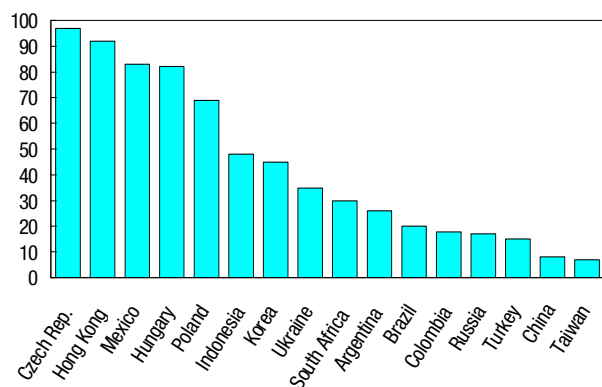
*We have cut our GDP forecast for emerging markets to 4.5% in 2009.*

One clear element of deeper connections is the magnitude of the shock to external demand coming chiefly from the United States and Europe. With lower U.S. and EU growth forecasts, we have slashed our emerging market growth numbers by 1–2 percentage points in most countries. We now expect emerging market economies to grow at only 4.5% in 2009, with most growth risks tilted to the downside, particularly in the more open economies.

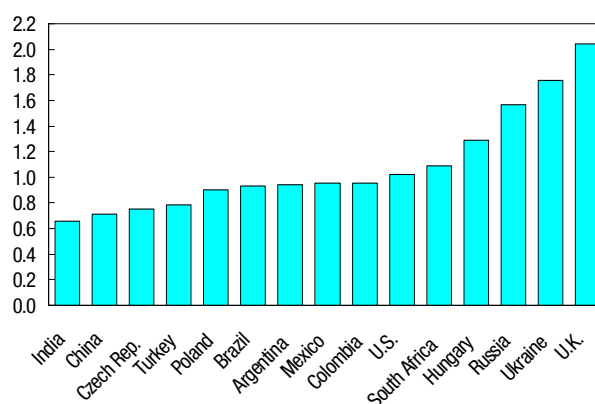
The trade flow effects — weaker demand for exports — will have the largest effects on countries closely linked to the United States and the EU and those for which trade is a larger share of GDP. Most exposed are small open economies in Asia — Singapore, Hong Kong, Malaysia, Taiwan, and Thailand — and across Central Europe — Czech, Hungary, and Slovakia.

*Slower growth could lead to lower commodity prices.*

One crucial judgment in emerging markets will be the path of commodity prices. Using the IMF's October *World Economic Outlook*, global growth will be two percentage points lower in 2009 than it was in 2007, almost one percentage point lower than the 2008 forecast. Yet the IMF expects commodity prices to fall by about 6% next year. A steeper drop, say of 10%–15%, would worsen the impact on Latin America and on oil producers like Russia, but cushion CEE and Asia. A smaller deterioration in current accounts would help ease currency pressures in commodity importers, allowing more

**Figure 43. Selected EM Countries — Foreign Ownership of Banking Assets (Percent), 2007**

Sources: Fitch Ratings and Citi.

**Figure 44. Selected EM Countries — Aggregate Loan-to-Deposit Ratio, End-2007**

Source: Citi.

*High foreign ownership in emerging market banking systems will hurt growth.*

*Sound state-owned banks are crucial to avoiding a flight to the dollar.*

*Recent bank pressures are largely due to liquidity fears, not concerns over solvency.*

*Corporate debt ratios look more robust than in the past.*

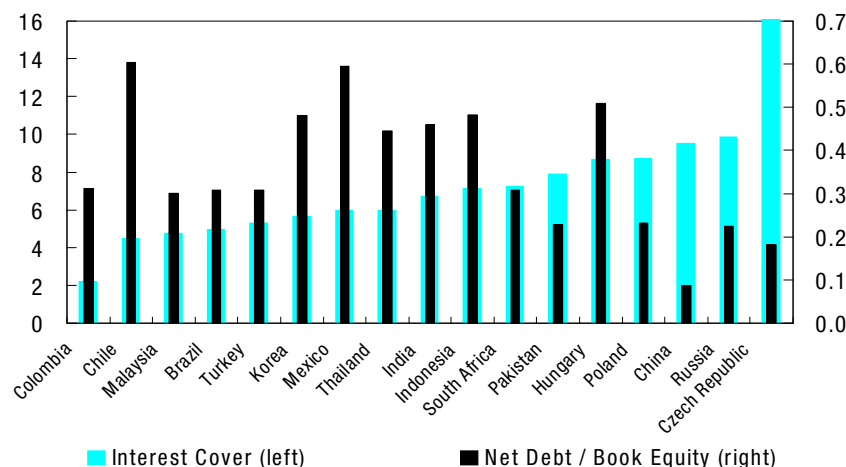
room for rate cuts and further supporting GDP growth. Just the opposite would occur across much of Latin America and in South Africa.

Given the focus of this crisis on financial institutions' distress and the ensuing collapse of risk appetite and market liquidity, capital flows and portfolio shifts by foreign and local investors are likely to remain a salient feature of this recession. Countries with a large proportion of foreign banks operating in their banking systems may suffer from an imported credit crunch. This is especially problematic in CEE and Mexico and Indonesia (see Figure 43). Financial systems with high levels of loan/deposit ratios, independent of their ownership, are also vulnerable to tighter credit (see Figure 44).

Beyond foreign-owned banks restricting credit, emerging market countries could suffer if the global recession exacerbated weak financial conditions in local banks or firms. Weakness in these institutions would generate a flight to safety by domestic asset holders, a flight that often has moved overseas. Judged by the most recent capital adequacy and nonperforming loans (NPLs) data, though, only North Africa and Vietnam banks appear exposed to concerns about solvency due to a collapse in growth. Furthermore, weak capital positions and high NPLs coincide with high levels of state ownership. As long as the governments' commitment to state banks is strong and credible, problems in state banks are less likely to generate a foreign exchange crisis. Instead, they would increase public debt and pressure long-term interest rates.

Recent bank pressures, though, have been driven by liquidity pressures, not concerns about bad assets and solvency. Banks that funded themselves overseas — Korean, Russian, Kazakhstan, and Vietnamese banks — have been hard-pressed as the deleveraging process and stagnation of capital markets has left their balance sheets unfunded. The smaller private banks in Russia, Kazakhstan, and Vietnam could well end up in state hands, as was the case in much of Asia in 1997–98. But given the solid public balance sheets in these countries, this can probably occur without fomenting a currency crisis. In Kazakhstan, international reserves and fiscal surpluses handily exceed M3. In Russia, reserves are 90% of M2 as of September.

Corporate indebtedness and currency fluctuations present another source of exposure. Concerns on this issue are largest in Turkey, Russia, Brazil, and Mexico. Data on foreign exchange exposure and derivatives is not systematically available, but data on corporate

**Figure 45. Selected EM Countries — Net Debt Ratio to Operating Income for Nonfinancial Firms, 2008**

Note: Figures based on latest financial statements. Source: Citi calculations based on latest financial statements.

leverage and interest cover for listed companies is (see Figure 45). This data does not show nearly the exposure that existed in earlier emerging market crises.

*Policy constraints and errors will be another factor driving outcomes.*

Another source of risk stems from constraints on policy and/or its mismanagement. Emerging markets generally still have inflation rates that are well outside central bank targets or forecasts. While inflation has generally peaked, and should fall further with a global recession, central banks are loath to ease too quickly lest they lose credibility. This is particularly the case in most of Latin America, but not Mexico, and in South Africa and Hungary. Other central banks are worried that weak credibility contributes to a high pass-through of foreign exchange movements into inflation. Hence, the recent bouts of currency weakness will also diminish the scope for nominal rate reductions. This is especially a concern of central banks in Brazil, Turkey, Chile, Hungary, and Indonesia. Generally, across Asia central banks are already easing, despite foreign exchange moves. This reflects greater concern about the magnitude of external shocks, central bank credibility, and the level of currency pass-through to inflation.

As the crunch tightens, recourse to less orthodox responses is likely to increase. Argentina, for example, has nationalized its private, fully funded pension system, converting it into a pay-as-you-go plan. This will release assets to the government to meet its current funding needs at the expense of higher future tax liabilities and possible capital flight. Elsewhere, governments may choose to impose capital controls if currency pressures drive rates to levels that undermine growth and the financial system, especially as confidence in capital market efficiency has been undermined by the global financial crisis itself.

*Not all countries can use fiscal policy to cushion the blow.*

Fiscal policy, a clear choice in the OECD for easing in the face of a recession, is not so clear cut across emerging markets. Initial fiscal deficits and/or high public debt are a constraint in India, Brazil, Hungary, and Egypt. These and some other countries — South Africa and the Philippines — are still focused on reducing fiscal deficits in an effort to keep long-term debt costs low. Other countries have the scope to use fiscal policy aggressively to boost their economies. Chief among them is China. The Arab oil exporters have the resources to shore up balance sheets, but they have little scope for increasing fiscal spending since governments were already spending flat out in an effort to translate their oil wealth into economic transformation.

## Latin America

**Argentina.** In our base case scenario, we expect our Argentina Activity Index (AAI) to grow by only 0.6% in 2009 and a decline cannot be ruled out if risks materialize. Lower agricultural production, a negative capital account, and lower export prices form the basis for this view. These factors will likely prevent the peso from further appreciating in real terms in 2009. We expect the peso to trade at about USD/ARS3.35 at the end of 2008 and USD/ARS3.9 at the end of 2009. Downside risks are significant given the external outlook, but we also acknowledge that the government will likely try to limit depreciation as much as possible before the October 2009 midterm elections. Inflation has decelerated toward 21%–22% year over year in September from a peak of 25%–26% in May, and will likely remain at this level if wage hikes do not accelerate. The government's decision to nationalize pension funds will improve the cash position of the government next year in case this initiative is approved by Congress, but the adverse signal may drive an acceleration of portfolio dollarization by Argentines.

**Mexico.** Despite recent volatility bouts in the foreign exchange market that prompted authorities to intervene with massive auctions of U.S. dollars, we still believe the primary impact of the global financial crisis on Mexico will be via economic activity. A substantial deterioration in the U.S. economic outlook, particularly in industrial production, has led us to cut our 2009 GDP growth estimates for Mexico. The government has also changed its macroeconomic assumptions and its budget proposal. While the fiscal balance — under its narrow definition — should remain by law at 0%, we now expect the broad definition of public sector borrowing requirements to reach a deficit of 2.8% of GDP instead of 2.0% in the original proposal. Taking into account a U.S. recession and the additional fiscal impulse, we expect 1.1% GDP growth in 2009.

Meanwhile, inflation risks are fading. Our new forecast of a weaker peso — we see the MXN/USD closing next year at 11.5 — should partially offset the decline in inflation. Still, weaker demand and lower commodity prices should bring inflation down. Against this backdrop, Banxico will likely ease monetary policy significantly. We now expect the overnight rate closing 2009 at 6.0%, implying rate cuts totaling 225 basis points. Moreover, we believe Banxico will begin its easing cycle with a 25-basis-point cut next month.

**Panama.** Economic activity continues to surprise on the upside. Second-quarter real GDP grew 10.1% year to year, while the monthly economic activity indicator (IMAE) rose 13% year to year in July, and the trend-cycle indicator shows a moderate pickup in growth since May. Softer commodity prices — particularly oil prices — are now pushing up consumer confidence. Although impressive growth revived concerns about potential overheating of the economy, we do not think this will be the case — FDI easily finances the current account deficit. However, we expect softer global economic activity to take its toll on the country and to moderate growth rates through lower activity in Panama Canal traffic, but not enough to materially weaken the balance of payments. Softer commodity prices could lend a hand in cutting the trade deficit. Citizens' attention may turn to worries about the May 3, 2009, election. The presidential race is ahead full steam right now. The ruling *Partido Revolucionario Democrático* (PRD) elected former Housing Minister Balbina Herrera as its presidential candidate. Her fiercest competitor will likely be *Cambio Democrático's* (CD) candidate, businessman Ricardo Martinelli.

## Asia

**Hong Kong.** We have cut our forecasts for economic growth in 2008 from 4.2% to 3.6%, and in 2009 from 3.8% to 2.8%. Exports should weaken in the face of a global recession. Meanwhile, the local financial market boom is over and will likely resume only after investors become bullish again, a change that seems far off. The weakening of exports and finance, Hong Kong's two biggest sectors, will lift unemployment and hit consumption. While the government's fiscal measures may support consumption in the next few months, a drop in consumer confidence owing to the plunge in stock and housing prices could offset the impact of fiscal stimulus.

The Hong Kong Monetary Authority (HKMA) has expanded discount window borrowing and cut the base rate by 150 basis points to check the rise in interbank interest rates (HIBORs). We expect the HKMA to follow the Fed and lower its policy rate by another 50 basis points before yearend. The sharp policy rate cut, together with the unlimited supply of US dollar liquidity by foreign central banks, should reverse the soaring US LIBOR spread. A decline in that spread would help three-month HIBOR fall, and temper the pressure on banks to hike lending rates. On the other hand, we expect exchange fund note yields to follow the rise in their U.S. counterparts on concerns about the soaring new supply of U.S. Treasury debt to finance the bank bailout.

**India.** While India is largely a domestic-oriented economy, it relies on foreign savings on the margin. The recessionary global environment should slow investments via reduced capital inflows. Consumption will likely suffer due to weaker income growth in externally oriented sectors like IT. A weaker growth outlook and tighter lending also should slow real estate activity. Thus, we have lowered our fiscal-year 2009 estimate from 7.5% to 7.2% and our fiscal-year 2010 estimate from 7.2% to 6.6%.

India ranks poorly in comparison to its peers, given its current account deficit and dependence on capital flows. Thus, until foreign portfolio shifts and domestic deleveraging run their course, the rupee is likely to remain weak. In the near term, it could cross Rs50/US\$. However, lower oil prices, coupled with the many levers India has to attract capital flows, may spark a reversal. Our March fiscal-year 2009 and fiscal-year 2010 estimates are now at Rs47/US\$ and Rs45/US\$, respectively. On the policy front, in a bid to calm nervous markets amid growing global turmoil and improve domestic liquidity conditions, the authorities have taken a number of measures since September 16, 2008. Besides further easing across the capital account and continued liquidity injections via the Liquidity Adjustment Facility, the Reserve Bank cut its policy rate by 100 basis points and lowered cash reserve requirements 2.5 percentage points. We expect further easing of rates and reserve requirements in the weeks ahead.

**Indonesia.** Indonesia had been one of the most resilient growth stories in Asia, but amid extreme global risk aversion its market and economy are suffering. Investors are likely to shun countries that need private external financing. Indonesia appears vulnerable to the risk of reversal of financial flows given the sizable holdings of stocks and bonds by foreigners. The authorities are likely to resort to greater multilateral and bilateral financing to make up for a potential shortfall of private external financing. The government also seeks to lower the risk of capitulation by foreign holders of rupiah-denominated government bonds through fiscal prudence that will allow it to halt bond issuance at least for the rest of the year.



To further limit external vulnerability risks, the authorities need to make good on their plans to rein in domestic demand, improve the current account position, and lower inflation pressure. The latest round of policy rate hikes to 9.5% demonstrated that Bank Indonesia (BI) is keen to assert its independence and will act objectively. Failure to do so could severely undermine the credibility of BI's currency intervention aimed at containing excessive IDR weakness. Measures aimed at easing the liquidity crunch, such as lowering the reserve requirement, should not be construed as a precursor to an imminent easing of monetary policy.

**Philippines.** We downgraded our GDP forecasts to reflect slower near-term domestic demand resulting from rising risk aversion. We anticipate the favorable combination of strong fiscal spending and accommodative monetary policy to cushion the downturn driven by falling net exports. We expect the U.S. recession to lower the share of net exports to GDP from 3.5% in 2008 to 1.6% in 2009. However, we do not expect a recession for the local economy. The sharp deceleration in growth coinciding with the expected U.S. recession replicates the macro impact of the U.S. "tech wreck" of 2001. The risk to our base-case forecast of 4.1% growth this year and 2.7% next year is on the upside if remittances continue to post buoyant growth.

Lackluster GDP growth should dampen inflation to within the target range of 4%–5% in 2009, allowing the monetary board to cut its overnight policy rates by 100 basis points to 5%. Rate cut prospects bode well for bond market sentiment, while an eroding interest rate differential could reinforce weak peso prospects. Lower interest rates may deflect market attention away from rising fiscal debt as the expected fiscal deficit expands to Php122 billion in 2009 or 1.5% of GDP. Even with the real trade balance shifting lower, in nominal terms, lower commodity prices should cut import growth and allow the 2009 current account surplus to hit 2% of GDP from an estimated surplus of 1% this year.

**Singapore.** The economy will likely enter its most severe recession since 2001. We expect GDP to contract by 1.2% in 2009, from already subpar growth of 2.2% in 2008. The underlying driver is an export contraction that is deepening and broadening in scope and intensity, a trend we expect to continue well into the first half of 2009. The export retrenchment should, in turn, accelerate a restructuring in manufacturing, with mounting job losses. Tightening liquidity and credit could delay the implementation of previously committed investments. The export slump has already spread to services, including tourism, but other trade-related services are also slowing. Domestically oriented sectors such as construction have also slowed, partly due to supply bottlenecks, but demand may also weaken as the housing downturn intensifies.

Given the severity of the expected recession, we cannot rule out further easing by the Monetary Authority of Singapore via a downward recentering of the policy band. This could take place before the April policy meeting. Furthermore, we expect the government will soon announce off-budget measures to cushion the economy, along with its recent provision of a blanket guarantee to bank deposits. In addition to a possible acceleration of delayed construction projects, tax rebates and other measures to lower business costs are likely. There may be a need to enhance the social safety net. A cut in the employer's Central Provident Fund contribution rate is likely, if the recession translates into mass retrenchments.



## Central Europe, Middle East, Africa

**Hungary.** Prospects for external and domestic demand have deteriorated significantly since the summer. Weaker growth in the eurozone has already depressed Hungarian industrial output and worsened third-quarter trade balance. We expect the eurozone slump to continue to weigh on export performance in the coming quarters. Meanwhile, weak industrial performance is likely to curb corporate investment. Therefore, we anticipate EU-funded infrastructure investment to be the only driver of fixed capital expenditure in 2009.

Tighter financial conditions and the likely implementation of tighter fiscal policy as part of a plan to stabilize the external accounts and win a program from the IMF have increased the chances of a delay in our expected pickup in domestic demand. If financial conditions remain severe, forcing banks to curb balance sheet growth, the economy may even face recession. Households have relied heavily on foreign exchange borrowing in recent years to smooth consumption, with net exposure to foreign exchange some 40% of GDP. Although market reactions to regulatory responses are highly uncertain, we expect liquidity conditions to remain tight, which is likely to lead to a dramatic slowdown in foreign exchange credit flows. This may weaken the currency and weigh on household balance sheets by increasing household debt burdens. Therefore, we expect renewed weakness in consumer spending in 2009, which is unlikely to be offset by looser fiscal policy.

**Russia.** Growth is set to slow sharply to 4.5% in 2009 owing to the global financial turmoil and lower domestic credit growth. Uncertainties remain regarding the global outlook and the effectiveness of the authorities' policy measures. The recent slowdown, however, highlights that a high dependence on commodity prices remains the key challenge for Russia. Energy and metals account for more than 70% of exports and stock market capitalization, and about 50% of budget revenues. During the run-up in commodity prices, our main concern was overheating. Macroeconomic policies became expansionary by 2006. Increasingly negative real interest rates led to rapid growth in nontradable sectors, consumer imports, and inflation. With the reversal now in train, a crucial issue will be managing the losses in the nontraded sectors associated with financial stress. We do not expect the banking crisis to develop into a currency crisis, however, given the high level of international reserves and solid public balance sheet.

**Ukraine.** The effects of the global credit crunch have begun to impact Ukraine, pointing to a much weaker growth outlook in 2009 as signs of tightening money and credit conditions intensify. This dynamic is set against significant external financing needs, restrained capital inflows, and incoherent policies. All of this underscore the risks to the economy, the hryvnia, and the currency reserve position of the National Bank of Ukraine. This combination of factors is almost certain to encourage the authorities to engage the IMF in a Stand-By Arrangement (now under negotiation), a move that we consider as necessary and welcome from a policy credibility point of view. Nevertheless, with the recent dissolution of parliament and general elections scheduled for December, the uncertain political climate ultimately leaves Ukraine vulnerable to a disorderly economic adjustment. In our view, without political will and commitment, engaging the IMF is not sufficient on its own to achieve a "managed" adjustment.

**Figure 46. Selected Emerging Market Countries — Economic Forecast Overview, 2007-09F**

	GDP Growth			CPI Inflation			Current Balance (% of GDP)			Fiscal Balance (% of GDP)		
	2007F	2008F	2009F	2007F	2008F	2009F	2007F	2008F	2009F	2007F	2008F	2009F
<b>Asia</b>	<b>8.9%</b>	<b>7.2%</b>	<b>6.2%</b>	<b>4.1%</b>	<b>7.1%</b>	<b>3.2%</b>	<b>7.0%</b>	<b>5.0%</b>	<b>4.7%</b>	<b>0.1%</b>	<b>-0.8%</b>	<b>-1.4%</b>
Bangladesh	6.2	5.7	5.5	9.5	8.0	6.2	0.9	-1.2	-2.1	-6.1	-5.1	-5.1
China	11.9	9.6	8.8	4.8	6.3	2.0	10.8	8.5	7.0	0.3	-0.3	-1.0
Hong Kong	6.4	3.6	2.8	2.0	4.5	3.3	13.5	10.5	8.8	7.7	-1.8	-2.2
India	9.0	7.2	6.6	4.5	10.5	5.0	-1.5	-3.4	-2.5	-5.3	-4.5	-4.3
Indonesia	6.3	6.0	4.8	6.4	10.2	7.0	2.5	1.3	0.8	-1.3	-1.8	-1.7
Korea	5.0	4.2	2.2	2.5	4.7	3.0	0.6	-1.0	2.0	3.8	3.0	1.5
Malaysia	6.3	5.3	3.8	2.0	5.7	4.4	15.5	14.5	13.0	-3.2	-4.8	-4.5
Philippines	7.2	4.1	2.7	2.8	9.6	5.2	4.4	1.0	2.0	-0.1	-1.0	-1.5
Singapore	7.7	2.2	-1.2	2.1	6.4	2.0	24.3	13.0	10.0	12.2	6.0	2.0
Sri Lanka	6.8	6.0	5.7	15.8	20.5	11.0	-4.2	-7.1	-7.5	-7.7	-7.0	-7.6
Taiwan	5.7	4.0	3.6	1.8	3.6	1.9	8.3	4.8	3.9	-0.2	-1.0	-1.3
Thailand	4.8	4.0	1.0	2.3	6.3	3.2	6.4	1.7	3.3	-1.4	-2.2	-2.4
Vietnam	8.5	6.3	5.2	8.4	23.7	10.4	-8.3	-13.4	-10.8	-1.7	-1.7	-2.4
<b>Latin America</b>	<b>5.4%</b>	<b>4.6%</b>	<b>2.6%</b>	<b>5.8%</b>	<b>9.0%</b>	<b>9.0%</b>	<b>0.8%</b>	<b>-0.3%</b>	<b>-1.2%</b>	<b>-0.5%</b>	<b>-0.2%</b>	<b>-1.3%</b>
Argentina	8.7	6.7	2.9	16.9	22.7	19.4	2.8	2.0	0.5	0.2	1.5	-0.8
Brazil	5.4	5.2	3.0	3.6	5.7	5.6	0.1	-1.7	-1.0	-2.3	-1.7	-2.0
Chile	5.1	4.2	3.0	4.4	8.8	5.9	4.4	-1.6	-2.8	8.6	6.5	4.0
Colombia	7.7	3.5	2.5	5.5	6.8	5.7	-2.8	-1.9	-2.8	-0.6	-1.0	-2.0
Ecuador	2.5	7.0	2.5	2.3	8.5	4.4	3.5	5.2	1.5	2.1	6.7	0.0
Mexico	3.3	2.2	1.1	4.0	5.0	4.7	-0.7	-1.7	-2.6	0.0	0.0	0.0
Panama	11.2	8.0	6.0	4.2	9.2	5.6	-8.0	-9.0	-6.9	3.5	1.0	0.0
Peru	8.9	9.1	5.5	1.8	5.7	4.0	1.4	-2.2	-3.0	1.8	5.4	-1.0
Uruguay	7.2	11.8	5.0	8.1	7.4	8.1	-2.0	-4.6	-4.4	0.0	-0.9	-0.9
Venezuela	8.4	6.5	2.9	18.7	31.6	37.0	8.8	12.3	2.5	-2.6	-2.9	-5.5
<b>Europe</b>	<b>6.7%</b>	<b>5.5%</b>	<b>3.4%</b>	<b>7.3%</b>	<b>11.1%</b>	<b>8.2%</b>	<b>-0.8%</b>	<b>-0.4%</b>	<b>-3.0%</b>	<b>1.2%</b>	<b>0.4%</b>	<b>-1.2%</b>
Czech Republic	6.0	4.2	3.0	2.9	6.6	2.6	-1.8	-1.8	-1.7	-1.6	-1.6	-1.9
Hungary	1.3	1.8	0.9	7.9	6.3	3.5	-6.4	-6.7	-6.8	-5.0	-3.4	-2.9
Poland	6.7	5.3	3.6	2.5	4.3	3.2	-4.7	-4.7	-5.1	-1.4	-1.4	-1.3
Romania	6.0	7.0	2.8	4.8	7.9	6.1	-14.0	-13.8	-9.0	-2.4	-3.0	-3.2
Russia	8.1	7.1	4.5	9.0	14.2	10.2	6.0	7.3	0.4	5.4	3.5	0.2
Slovak Rep.	10.4	7.3	6.1	2.8	4.7	4.3	-1.2	-5.0	-4.0	-2.2	-2.2	-2.0
Turkey	4.6	2.5	0.9	8.8	10.3	9.2	-5.7	-6.9	-6.4	-1.6	-2.0	-3.1
Ukraine	7.7	5.8	2.8	12.8	25.2	16.4	-4.2	-8.7	-10.5	-1.1	-2.1	-2.4
<b>Africa/Mideast</b>	<b>5.7%</b>	<b>5.3%</b>	<b>2.9%</b>	<b>7.0%</b>	<b>12.3%</b>	<b>6.2%</b>	<b>7.5%</b>	<b>11.0%</b>	<b>0.0%</b>	<b>4.7%</b>	<b>6.4%</b>	<b>0.4%</b>
Egypt	7.1	5.8	4.6	9.5	19.0	1.7	0.4	-0.8	-3.5	-7.5	-6.2	-7.2
Israel	5.4	4.3	1.9	0.5	4.5	2.9	2.8	0.4	-0.1	0.4	0.2	-0.9
Jordan	6.0	4.1	4.6	5.4	5.0	3.7	-18.8	-18.2	-16.7	-5.5	-4.8	-4.4
Kazakhstan	8.5	4.4	4.7	10.8	17.3	7.9	-7.3	6.1	8.2	-1.8	-3.1	-4.1
Kuwait	3.8	6.1	1.4	5.5	10.5	4.8	42.6	44.2	26.7	27.3	32.0	9.4
Lebanon	4.0	4.9	5.6	9.3	17.0	7.2	-8.3	-12.4	-12.9	-10.3	-10.7	-11.1
Nigeria	6.2	6.6	6.7	5.4	10.2	10.5	1.3	4.4	3.9	-0.5	-0.4	-0.9
Pakistan	5.8	3.7	5.9	12.0	21.9	5.4	-8.1	-5.3	-5.0	-7.4	-5.5	-5.2
Qatar	8.9	7.4	2.4	13.8	15.1	9.5	16.4	21.1	-5.4	16.4	19.9	-2.3
Saudi Arabia	3.4	5.8	-0.5	4.1	10.0	5.1	25.1	29.8	1.6	12.4	14.5	1.7
South Africa	5.1	3.4	2.7	7.0	12.3	6.2	-7.3	-8.2	-7.6	0.8	0.6	-0.1
United Arab Emirates	9.3	7.4	3.9	11.1	11.0	9.5	18.6	22.9	-5.4	8.4	15.3	10.1
<b>Total</b>	<b>7.4%</b>	<b>6.1%</b>	<b>4.5%</b>	<b>5.4%</b>	<b>8.8%</b>	<b>5.7%</b>	<b>4.3%</b>	<b>3.6%</b>	<b>1.5%</b>	<b>0.7%</b>	<b>0.4%</b>	<b>-1.1%</b>

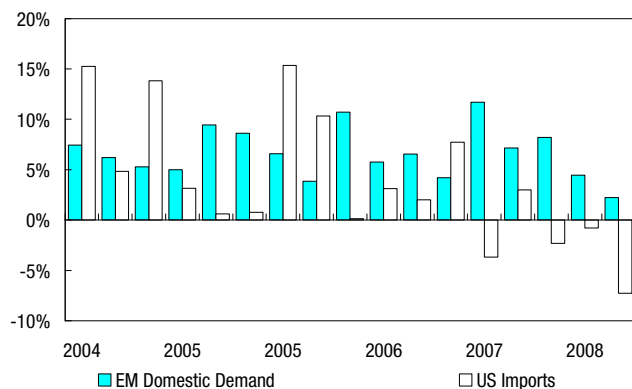
F Citi forecasts.

Note: GDP and CPI are expressed as year-to-year percent change. Calendar years except fiscal years for Bangladesh, India, and Pakistan.

Source: Citi.

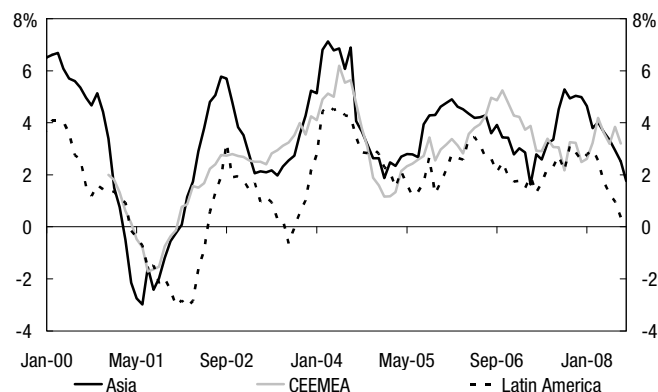
## Emerging Markets Fundamentals Charts

**Figure 47. Emerging Markets Domestic Demand and U.S. Imports, (Seasonally Adjusted Annualized Percent Change), 2Q 04–2Q 08**



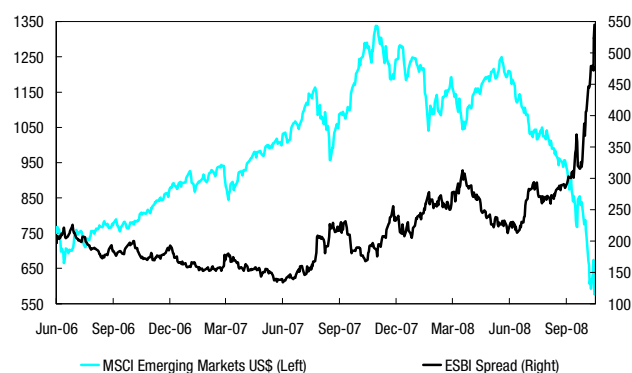
Sources: Haver Analytics and Citi calculations.

**Figure 48. Emerging Markets Industrial Production, (Sequential Six-Month Seasonally Adjusted Percent Change), Jan 00–Aug 08**



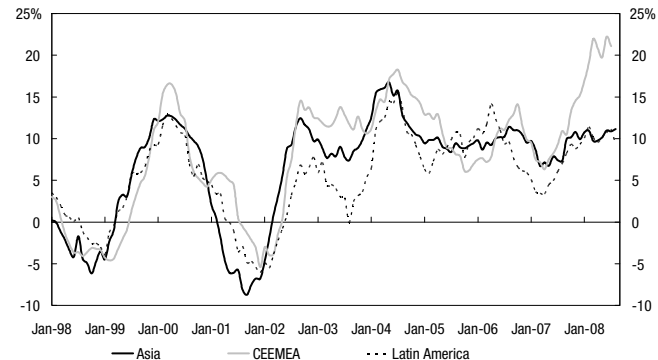
Source: Haver Analytics and Citi calculations.

**Figure 49. ESBI and MSCI Emerging Markets, Jun 06–17 Oct 08**



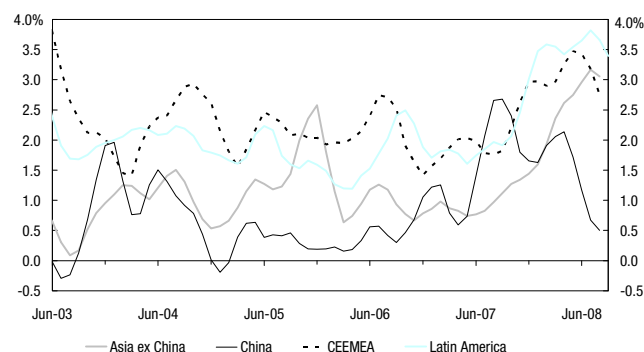
Sources: Citi and MSCI.

**Figure 50. Emerging Markets Exports (Sequential Six-Month Seasonally Adjusted Percent Change) Jan 98–Aug 08**



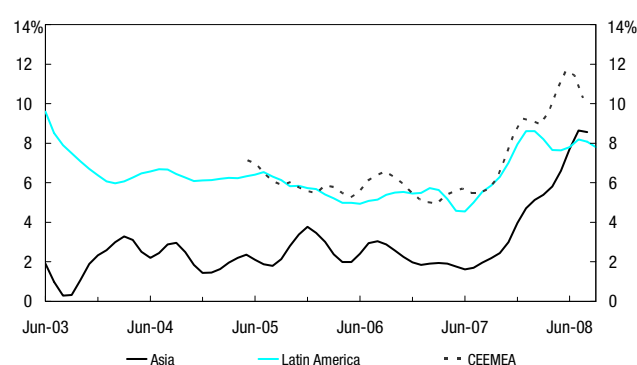
Source: Haver Analytics and Citi calculations

**Figure 51. Headline Consumer Price Inflation in Emerging Markets (Sequential Three-Month Seasonally Adjusted Percent Change), Jun 03–Sep 08**



Sources: Haver and Citi.

**Figure 52. Core Consumer Price Inflation in Emerging Markets (Sequential Three-Month Seasonally Adjusted Percent Change), Jun 03–Sep 08**



Note: Core inflation is defined as 20% trimmed in Asia, Russia, and by respective national statistics offices in CEEMEA and Latin America. GDP weighted. Asia — Hong Kong, Indonesia, Korea, Philippines, Singapore, Taiwan, Thailand. CEEMEA — Czech Republic, Hungary, Poland, Russia, Slovakia, Turkey, Israel, Kazakhstan, South Africa. Latin America — Argentina, Brazil, Chile, Mexico, Peru, Venezuela. Sources: Haver Analytics and Citi.

**Figure 53. Citi Economic and Market Analysis (EMA) Team**

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**Figure 54. Recent Publications from the Citigroup Economic and Market Analysis (EMA) Team**

<b>Title</b>	<b>Contact Name</b>	<b>Date of Publication</b>
<b>Annual Report</b>		
<i>Industrial Countries</i>		
Prospects for Financial Markets	Lewis Alexander	November 21, 2007
<b>Monthly Reports</b>		
<i>Industrial Countries</i>		
Global Economic Outlook and Strategy	Lewis Alexander	September 24, 2008
<i>Emerging Markets</i>		
Emerging World	Don Hanna	September 26, 2008
Latin America Economic Outlook and Strategy	Alberto Ades	September 25, 2008
Asia Economic Outlook and Strategy	Yiping Huang	September 25, 2008
<b>Weekly Reports</b>		
<i>Industrial Countries</i>		
<b>Comments on Credit (North America)</b>	Robert V. DiClemente	
"The Shape of Things to Come"		October 17, 2008
"Number Crunching"		October 10, 2008
"Breakout to the Downside"		October 3, 2008
<b>Euro Weekly</b>	Michael Saunders	
"Crisis Management"		October 17, 2008
"Get Ready For A Super Bazooka"		October 10, 2008
"Ready To Ease"		October 3, 2008
"Edging Towards Easing"		September 26, 2008
<b>Sterling Weekly (United Kingdom)</b>	Michael Saunders	
"Here Comes the Recession"		October 17, 2008
"Unprecedented... But is it Enough?"		October 10, 2008
"MPC To Cut 50bp"		October 3, 2008
"MPC Likely To Cut Soon"		September 26, 2008
<b>Issues and Prospects (Japan)</b>	Kiichi Murashima	
"Why Durables Spending is Resilient"		October 16, 2008
"BoJ Doesn't Join Coordinated Rate Cuts"		October 9, 2008
"A Rate Cut is Not a Base-Case Scenario Despite the Downbeat Tankan"		October 3, 2008
"Q4 GDP Surprises to the Upside"		September 25, 2008
<b>Australia and NZ Weekly: Economy and Markets</b>	Stephen Halmarick	
"ANZAC Inflation Preview"		October 17, 2008
"Focus on Australian Housing and Company Earnings Outlook"		October 10, 2008
"Courage Needed"		October 3, 2008
"Searching for Financial Stability"		September 26, 2008
<b>Emerging Markets</b>		
<i>The Week Ahead: Asian Edition</i>	Don Hanna	
The Week Ahead: Asian Edition	Yiping Huang	October 17, 2008
Eastern Europe/Middle East/Africa Daily and the Week Ahead	David Lubin	October 17, 2008
Latin America: The Week Ahead	Alberto Ades	October 17, 2008

EMA research is available through your sales representative via mail or the Internet.



## Notes

## Disclosure Appendix A1

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