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mprandeka@eurobank.gr**Main Views and Market Strategy:**

- In contrast to the Consensus view of a short-lived and shallow contraction in the US, we expect a deeper consumer-led recession. Our GDP probit model suggests that the US is already in a recession in Q2 08 with a probability of more than 90%.
- We estimate the output loss of the current recession to exceed \$100bn. Hence, in terms of GDP loss, the current recession is likely to be twice as severe as the 2001 recession.
- With rising inflationary pressures, there is not much room for the Fed to lower interest rates further as the economy continues to weaken. However, the deterioration of the state of the real economy and the tightening of credit conditions may prompt the Fed to cut rates once more later this year by another 25-50bps.
- The Fed will probably revert to a restrictive policy soon after the economy starts to rebound. We expect Fed funds rates to reach 3.75-4% by December 2009, increasing the risk of pushing the economy into a deeper recession in 2009-10.
- As the US recession deepens, the economic slowdown in the rest of the world will intensify, although the global economy may technically avoid a recession, as growth in developing countries, notably China and India, is largely driven by domestic demand.
- The persistently high growth of developing countries has contributed to the recent surge in commodity prices which, in turn, has started to feed through to global inflation, posing a serious threat to the global economy and to investors.
- Looking forward, we expect equity valuations to increasingly reflect the economic fallout from the US recession. With domestic demand faltering in Q2, corporate earnings of US companies will be hurt harder during the rest of 2008.
- With unemployment cumulating over the next few quarters, Treasury yield spreads will likely widen somewhat in H2 and flatten significantly afterwards as the Fed shifts to a tightening bias early in 2009.
- Bunds are likely to outperform Treasuries over the next few months, as economic data from the euro area start to come out weaker, enforcing expectations of ECB rate cuts.
- While the long period of dollar weakness is likely coming to an end, we do not believe that the improvement of the US trade deficit will act as a catalyst for a sharp rebound of the dollar anytime soon, given the weakness of the US economy.
- In credit markets, we expect a shift from systemic risk fears about the financial system to risks concerning the economic outlook. Should these risks realize, then high-yield debt will likely underperform high-grade debt, as it is more sensitive to a deterioration of the macro outlook and has overperformed so far.

Macro Forecasts

	2007	2008		2009	
		Eurobank EFG	Consensus	Eurobank EFG	Consensus
Real GDP Growth (y-o-y average)					
US	2.2	1.0	1.3 (0.5 – 2.2)	0.9	2.1 (0.5 – 3.2)
EA	2.6	1.4	1.5 (1.1 – 2.0)	1.3	1.7 (0.7 – 2.6)
Japan	2.1	1.2	1.3 (0.8 – 1.8)	1.5	1.7 (0.7 – 2.1)
CPI Inflation (y-o-y average)					
US	3.0	3.6	3.5 (1.2 – 5.0)	3.6	2.4 (0.9 – 4.6)
EA	2.1	3.0	3.0 (2.3 – 3.0)	2.4	2.1 (1.8 – 2.4)
Japan	0.0	0.8	0.8 (0.6 – 0.9)	0.5	0.4 (0.2 – 0.7)
Short Term Interest Rates (end of year)					
Current					
US	2.00	1.75	2.25 (1.00 – 3.50)	3.75	2.75 (1.00 – 4.50)
EA	4.00	4.00	4.25 (3.25 – 4.25)	3.00	3.50 (3.00 – 4.50)
Japan	0.50	0.50	0.50 (0.25 – 0.75)	0.75	0.50 (0.25 – 1.00)

Note: Range of forecasts by Bloomberg's survey in parentheses below point estimates.

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Executive Summary

Dimitris Malliaropoulos

Is the worst over for credit and equity markets?

Decisive action by central banks, led by the US Fed, has reduced systemic risks of the global financial system. The bailout of Bear Stearns in March has triggered a relief rally in equity and credit markets, as investors decided that the worst of the credit crisis is over. Nonetheless, confidence among banks remains low despite the liquidity injections of major central banks, as suggested by persistently large money market spreads. As write-offs are not even half through the IMF estimates of potential losses (\$1,000bn), the economic fallout from the sub-prime crisis is likely to persist for an extended period of time, affecting both the availability and the cost of credit for households and companies.

The implicit guarantee of the Fed that it will not allow the default of a large financial institution has impelled a collective sign of relief in credit and equity markets which, in combination with a stream of better than expected economic data in April, shifted investors' sentiment towards the more optimistic view of a shallow and short-lived US recession. Many economists now think the US will eventually avoid an outright contraction. We do not share such optimism. The housing market slump continues to deepen and there are increasing signs of a more protracted slowdown in consumer expenditure, underpinned by sharp declines in home values as well as increasing food and energy prices. Our recession model suggests that the US is already in a recession in Q2 with a probability of more than 90%. This is nearly double the probability estimated by the same model shortly before the 2001 recession.

US recession: deep and protracted?

Both the depth and the duration of the ongoing recession in the US and the extent to which it will affect global growth largely depend on the outlook of the US consumer.

Negative wealth effects stemming from the downturn of the housing market, tighter credit conditions due to the sub-prime crisis, increasing unemployment and rising inflation have all contributed to a substantial deterioration of household finances. The sharp deceleration of consumer spending in Q1 (down to 1% q-o-q annualized from 2.3% in Q4 07) increases the risk that the current recession will be both deep and painful with a GDP loss exceeding \$100bn.

Our research suggests that the severity of past US recessions is highly correlated with the weakness of private consumption. Given the scale of the recent slowdown in private consumption, the current recession seems closer to the recessions of 1990-91 and 1980-82 (in fact a double dip recession), when output losses in terms of GDP were among the biggest in post-war US history. Calculated in 2008 prices, the output loss of the 1990-91 recession has been over USD 100bn and the output loss during the 1980-82 recession was nearly USD 200bn.

Looking forward, we expect US consumers to take a substantial hit from declining housing wealth, tighter lending conditions and rising unemployment over the following quarters. We project GDP to decline by 1% in Q2 and barely grow in the following quarters, despite the significant monetary and fiscal stimulus already in the pipeline. Thereafter, we expect GDP growth to accelerate to around 1.5% q-o-q saar in 2009, significantly below potential growth which we estimate at 2.5%.

Fed policy: not quite done

After cutting Fed funds rates by a total of 325bps since last August in an attempt to act proactively, the Fed has nearly run out of ammunition. With rising inflationary pressures, there is not much room to lower interest rates further as the economy continues to weaken. The Fed will likely pause for several months to assess the impact of the monetary and fiscal stimulus on the economy. However, we do believe that the deterioration of the state of the real economy and the effective tightening of credit conditions may prompt the Fed to cut rates once more later this year by another 25-50bps.

We believe that the aggressive rate cuts seen so far are to a large part the response of the Fed to the worsening credit crisis rather than the response to an outright deterioration of the state of the US economy (see our analysis in our February 2008 issue of "Global Economic & Market Outlook"). This has two implications: First, the Fed can remove the dovish bias soon after conditions in credit markets improve. Second, as the Fed acted this time early enough, the effects of policy easing on the real economy will likely become visible earlier than in previous easing cycles. As a result, with inflation remaining at elevated levels, the Fed will not sit on hold for long. We expect that Fed funds rates will start to increase early in 2009 by more than 200bps and reach 3.75% - 4% in December 2009.

Global economy: Will the world end up in a vicious circle of lower growth and higher inflation?

A slowdown of global growth is already under way, reflected in G7 GDP growth, global industrial production and world trade. As the US recession deepens, the economic slowdown in the rest of the world will intensify, although the global economy may technically avoid a recession, as growth in developing countries, notably China and India, is largely driven by domestic demand.

One consequence of the persistently high growth of developing countries is the recent surge in commodity prices, which has started to feed through to global inflation. In fact, the main surprise over the past few months did not come from global growth (which remained relatively robust) but from the speed with which the commodity price shock has been transmitted into headline inflation both in developing and industrialized economies. Global inflation has both accelerated and broadened into categories of consumer and capital goods, which had been previously declining in price. Import prices from China and other developing countries, which were declining until recently, are now accelerating sharply. As the disinflationary impact of globalization has given way to rising commodity prices across the board, developing countries have turned into inflation exporters to the developed world.

The acceleration of global inflation imposes a serious threat to the global economy. With the Fed on a dovish stance since last August, global real interest rates have declined further from already low levels, suggesting that central banks (with some rare

exceptions, such as the ECB and the BOE) are lagging behind. By the time monetary policymakers around the globe realize the seriousness of the inflation threat, it may be too late. The appropriate response by that time will be to hike interest rates aggressively, running the risk of throwing the global economy into a deep and protracted recession.

At the current juncture, it appears that the global economy has two options:

- To slow down in 2008, putting a break on the surge of commodity prices and the pickup of global inflation.
- To continue expanding at a similar pace, fueling further the rise in global commodity prices and inflation, only to end up in a deeper recession later in 2010.

The outcome will likely depend on a number of factors such as the magnitude and the duration of the current US recession, its effect on global growth and the behavior of global central banks, most importantly the Fed. Our central scenario suggests that the US recession will be deep by historical standards and the Fed will revert to a restrictive policy soon after the economy starts to rebound. A wild card, though, are emerging economies, most notably China and India. If growth in these economies decelerates strongly enough to break the upward trend in oil and commodity prices, the global economy will end up at a lower but more sustainable growth trajectory. Otherwise, global inflation will get out of control for several years to come, risking a repeat of the 1970s experience of stagflation.

Long-run risks to investors

Rising global inflation imposes serious risks to investors, as suggested by the experience of the 1970s. Inflation is bad for most asset classes, including bonds and stocks. It is easy to understand why inflation hurts bond investors: higher inflation leads to higher nominal bond yields (hence lower bond prices) as investors seek for compensation for rising inflation. This trend has already been set into motion since March, driving global bond yields gradually higher. It is more difficult to understand why inflation is bad for stocks, as standard fair value models in finance are formulated in real terms, abstracting from effects of inflation on earnings, discount rates and risk premia. Our research suggests that stock markets tend to under perform during long

periods of high and persistent inflation for three reasons: First, nominal earnings lag behind inflation as profit margins get compressed both because of rising costs and increasing competition of companies to defend their market share in an environment of subdued aggregate demand. Second, real interest rates increase too as central banks are forced to hike nominal rates to levels above headline inflation in order to break the wage-inflation spiral. As a result, lower earnings growth is discounted with higher discount rates, depressing fair values of equities. Third, our research suggests that rising inflation also leads to higher volatility of real earnings, giving rise to higher equity risk premia, as investors seek for a compensation for higher uncertainty. As a result, fair values decline even further. Overall, we find that there are only a few sectors, such as oil and commodity related sectors, which can provide positive real returns in an environment of generalized price inflation.

Implications for Asset Allocation

Risky asset markets are currently at a cross-road. On the one hand, decisive interventions by the Fed and other major central banks have led to a gradual dissipation of systemic fears of a financial system meltdown. This has triggered a sharp rebound of credit and equity markets from their March lows as investors' risk appetite picked up. On the other hand, increasing worries about the macro outlook of the global economy, most importantly of the US economy, put downward pressure on market valuations. Our view is that the main theme of a US housing and consumer related recession, combined with increasing fears that global inflation will likely get out of control, will continue to dominate medium term trends in financial markets.

Equities

The rebound in equity markets since mid-March is in our view a typical bear market rally as it occurred on the back of a fundamentally worsening economic outlook, sharply rising global inflation and an unfolding credit crisis. Looking forward, we expect equity valuations to increasingly reflect the economic fallout from the US recession, which, in our view, will be large relative to previous ones. We also do not share the Consensus view that corporate earnings are likely to rebound strongly in H2. In our view, the positive surprise in non-financial corporate profits in Q1 came mainly from a

rebound in profit margins amid declining domestic demand as producer price inflation increased sharply over the past six months and unit labor costs decelerated significantly. The resulting increase in profit margins has helped companies counterbalance the negative effect of slowing aggregate demand on corporate earnings. With domestic demand faltering in Q2, corporate earnings of US companies for the remaining of the year will be hurt harder.

Government bonds

Treasuries: Current bond market valuations have in our view fully priced in the Consensus view that the Fed will go on hold, as the worst of the credit crisis is likely over, the recession in the US will be likely short and shallow, but deep enough to lead inflation lower within a reasonable time span and without the need of aggressive rate hikes by the Fed in the following years. We agree with the general view that Treasury yields will be heading higher on a longer time horizon as inflation fears will increasingly get priced in bond markets. But, overall, the downside risks to the US economy have not evaporated in our view and we expect the Fed to cut rates once more in Q3. That said, the bottom of the Fed funds cycle is getting closer and we expect the Fed to start hiking rates early in 2009 to deal with rising inflation. With unemployment cumulating over the next few quarters, we believe that Treasury yield spreads will likely widen somewhat in H2 and flatten significantly afterwards as the Fed embarks on a tightening bias early in 2009.

Bunds: Comparing the recent price moves with previous historical episodes, we believe that spread narrowing has run its course, as spreads have declined by 150bps over the past twelve months, close to the 2001 recession event, when the Treasury-Bund spread had declined by about 175bps peak to trough. In terms of fundamentals, our fair value model suggests that most of the spread tightening over the past twelve months was due to the worsening of the economic outlook of the US relative to Germany and the euro area. This force will likely seize in the near term, as leading indicators in the euro area have started to weaken too, suggesting a slowdown of economic activity in 2008 and 2009. Looking forward, we believe that Bunds are likely to outperform Treasuries over the next few months, as economic data from the euro area start to come out weaker, enforcing expectations of ECB rate cuts.

Foreign Exchange

Looking forward, we expect the EUR/USD to range trade at levels between 1.50 and 1.60 for the second half of the year as the two main forces acting on the currency have recently started to balance each other. First, the aggressive easing of the Fed is coming to an end, providing some support to the dollar. Moreover, the euro may come under increased pressure as soon as the ECB drops its current hawkish rhetoric. Second, the dollar decline of the past few years has raised the competitiveness of US exports, resulting in an improved US trade deficit. In fact, strong export growth was one of the main catalysts of economic growth during the past three quarters in the face of faltering domestic demand. While we believe that the long period of dollar weakness is likely coming to an end, we do not share the view that the improvement of the US trade deficit will act as a catalyst for a sharp rebound of the dollar anytime soon. This is because, in our view, the improvement of the US trade deficit in 2008 will come mainly from the cyclical decline in imports as domestic demand (and, most importantly, personal consumption) slows down, rather than from an acceleration of exports, given an increasingly weaker global economy.

Credit Markets

Looking forward, we believe that the relief rally, started in mid-March, is coming to an end and the balance of risks driving credit market performance is about to change. It is likely that there will be a shift from systemic risk fears about the financial system to risks concerning the economic outlook. Should these risks realize, as we expect, then high-yield debt will likely underperform high-grade debt, as it is more sensitive to a deterioration of the macro outlook and has overperformed so far. However, the ongoing process of deleveraging by investors posts a significant source of concern for the high-grade sector itself.

Commodities

We continue to view the precious metals and the agricultural complexes with an upside bias for the rest of 2008, as all major price supportive dynamics remain in place. Concerning precious metals, prospects for gold prices are positive, as inflation

concerns are on the rise. However, investors should be cautious over longer horizons, because it is likely that the USD will start strengthening when the US economy enters a recovery face, likely in 2009. In agricultural markets fundamentals remain constructive to prices, as food, feed and fuel demand remain robust and inventories are at multi-year lows. Wheat is an exception, as prices are likely to correct further, in light of expectations for increased production in the 2008/09 crop year.

Energy and industrial metal sectors have surprised to the upside so far in 2008, given the slowdown in the US and other developed world economies. In the medium to long run, the combination of robust developing world demand and constrained supply will likely continue to support prices, although a correction in the short run cannot be ruled out. However, any negative surprise regarding economic growth in the developing economies could trigger a severe correction in prices.

II. EFG Macro Model

Forecasts: US Economy & Markets

EFG Macro Model Forecasts: US Economy & Markets

	2008:Q1	2008:Q2	2008:Q3	2008:Q4	2009:Q1	2007	2008	2009
GDP q-o-q saar	0.9	-1.0	0.5	0.4	1.4	2.4	0.1	1.5
GDP y-o-y	2.5	1.3	0.2	0.1	0.4	2.2	1.0	0.9
Consumption y-o-y	1.9	0.8	0.4	0.4	1.0	2.9	0.9	1.7
Disp. Income y-o-y	1.2	1.3	0.6	0.7	0.7	3.0	0.9	0.9
Corp. Profits after tax y-o-y	4.6	3.8	4.0	4.1	4.8	2.6	4.1	5.6
Labor Market								
Employment y-o-y	-0.1	0.2	-0.3	-0.3	-0.4	1.0	-0.1	-0.2
ULC y-o-y	1.3	1.6	1.6	1.6	1.5	3.0	1.5	1.4
Inflation								
Headline CPI y-o-y	3.9	3.7	3.6	3.3	3.7	3.0	3.6	3.6
Core CPI y-o-y	2.3	2.6	2.8	3.0	3.1	2.3	2.7	3.3
Core PCE y-o-y	2.1	2.4	2.4	2.5	2.6	2.0	2.3	2.8
Core PPI y-o-y	2.8	2.9	2.9	3.0	3.0	1.8	2.9	2.9
Interest Rates (% end of quarter)								
Fed Funds	2.25	2.00	2.00	1.75	2.25			
10-y Treasury yield	3.45	3.77	3.81	3.87	3.93			
Spreads (bps, end of period)								
10y Treasury-Fed funds rate	120	177	189	202	173			
10y Treasury-Bund	-45	-42	-35	-24	-14			
Exchange Rates (end of quarter)								
USD/EUR	1.58	1.56	1.61	1.54	1.56			
Probability of								
Fed Funds Cut	0.49	0.47	0.47	0.47	0.30			
10y-1m Spread to increase	0.95	0.98	0.84	0.95	0.90			
S&P500 to outperform 10-y UST	0.00	0.45	0.48	0.45	0.43			
Bund to outperform 10-y UST	0.37	0.71	0.53	0.58	0.58			

Note: All forecasts are based on the estimates of a quarterly econometric model of the US economy and main financial markets. Point forecasts and probability estimates are subject to risks and should be only indicative of medium-term trends of the economy and financial markets.

Probabilities in the bottom part of the table are based on probit model estimates. They range between zero and one. A probability of more than 0.5 suggests that we regard this event as more likely to happen. All numbers in the table are pure model forecasts. They serve the purpose to provide a consistent view of the US economy and main financial markets based on historical regularities.

III. Global Economic Outlook

1. The US economy

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- The recent release of Q1 GDP data does not change our fundamental view that the US economy is already in a recession.
- The temporary surge in inventories and the considerable imports deceleration mask an outright decline in private domestic demand by 0.5% y-o-y.
- Our US GDP probit model points to an outright recession in 2008, with a probability surpassing 90% in Q2 2008.
- In contrast to the consensus view of a short-lived and shallow recession, we expect a deeper consumer-led recession.
- The ongoing rise in inflation reinforces doubts about the sustainability of the US recovery in 2009.

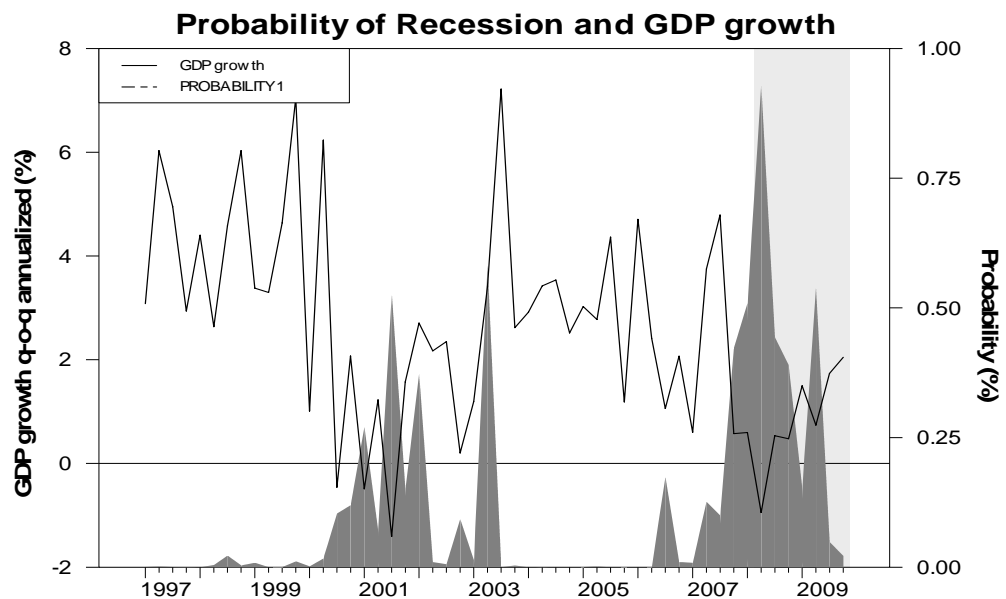
The US economy is most likely already in recession

During the past few weeks, the significant improvement in credit and equity markets reinforced the view that the financial turbulence may have peaked at the end of the first quarter of 2008. Credit default swaps have narrowed dramatically, stock prices have rallied by over 10% around the globe, while volatility in both equity and bond markets has retreated significantly from its previous highs. This recent improvement in credit derivatives and equities, in combination with the better-than-expected US economic data and the expected boost from the fiscal stimulus in H2 08, appears to have raised hopes that the worst of the US downturn is over. Furthermore, the recent upward surprise in the ISM non-manufacturing index from 49.6 in March to 52.0 in April 2008, the more modest than expected decline of 20k in non-farm payrolls in April and the improvement in the February trade balance has impelled a collective sign of relief in the markets, shifting market's sentiment towards the more optimistic view of a shallow and short-lived US downturn.

According to our estimates, the recent string of better data releases does not point to an improving macroeconomic environment. The housing market slump continues to deepen and there are increasing signs of a more protracted slowdown in private consumption expenditures, underpinned by sharp declines in home values, as well as increasing food and oil prices. Our US GDP probit model, which links the probability of a recession to the quarterly change in real house prices and the ISM manufacturing index, as well as measures of the state of the labor market -non-farm employment, the rate and the median duration of unemployment- points to an outright recession in

2008, with the probability of recession surpassing 90% in Q2 2008 (Figure 1.1). Our baseline projections include a significant deceleration of real GDP growth to 1.0% y-o-y in 2008 from 2.2% in 2007. Being considerably more pessimistic than Consensus, we have already recognized that the probability of a US recession has jumped up to 60% in September 2007. The overall analysts' consensus has recently shifted towards a high likelihood of a US recession in 2008.

Figure 1.1



*Source: Eurobank EFG model estimates

The shaded area represents the probability of a recession based on model estimates. Our probit model uses lagged values of the change in the ISM index, growth in non-farm payrolls, the change in house prices, the rate of unemployment and the duration of unemployment.

The recent release of Q1 GDP data does not change our fundamental view that the US economy is already in a recession. We believe that current GDP data are misleading for three reasons:

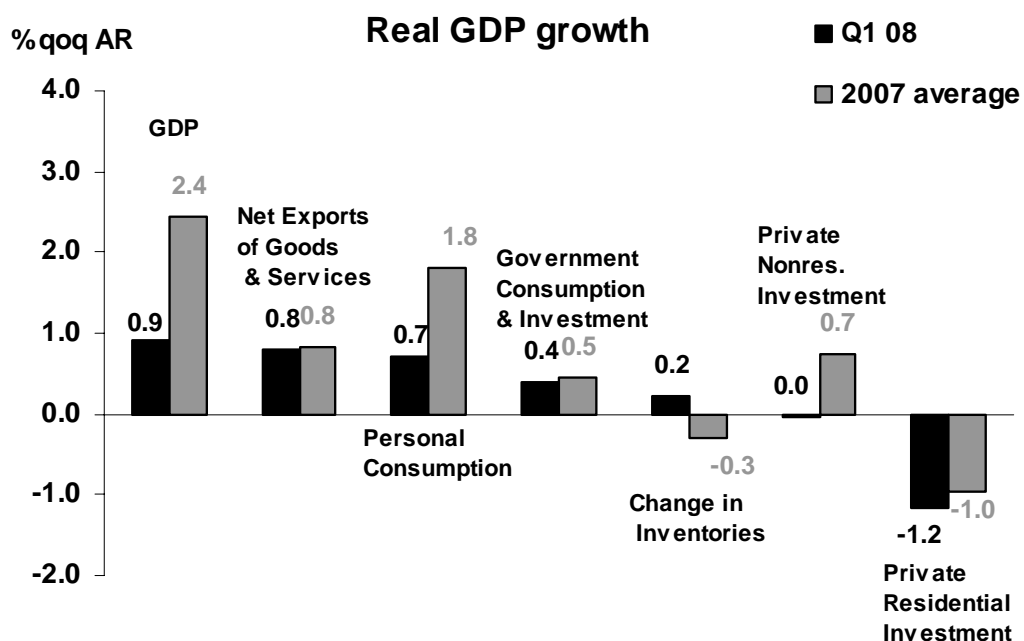
1. GDP growth in Q1 was mainly due to a deceleration in imports growth and to inventory changes, which is admittedly one of the most volatile GDP components. The surge in inventories in Q1 and the considerable imports deceleration mask a significant deceleration of private consumption expenditures and an outright decline of private fixed investment.
2. Excluding inventories, public expenditures and net exports, private domestic demand has contracted by 0.5% in Q1 08.
3. Historically, first release of GDP estimates systematically overestimates GDP growth during recessions by roughly 0.5 percentage point during the past 30 years. Downward revisions of

GDP data over the next four quarters will reveal that the US economy has entered a recession in Q1 08.

Q1 GDP data: Temporary surge in inventories and imports deceleration mask an outright decline in private domestic demand

Although real GDP growth remained fairly positive in Q1 2008, expanding by 0.9% q-o-q saar, there was plenty of negative evidence in the composition of the preliminary GDP release (Figure 1.2). The weakness of the private domestic economy was particularly evident, with final sales to domestic purchasers that provide a better indication of the strength of the underlying demand declining by 0.4% for the first time in the last 17 years. Personal consumption expenditures growth slowed remarkably to 1.0% q-o-q saar in Q1 2008 from 2.3% in Q4 2007, boosted by the 3.0% q-o-q annualized increase in real services expenditures which more than offset the 6.2% q-o-q annualized decline in durable goods and the 0.3% drop in nondurable goods.

Figure 1.2



The pace of contraction in real fixed capital formation almost doubled in Q1 08 compared to Q4 07 (-7.8% q-o-q saar in Q1 08, down from -4% in Q4 07), with residential investment spending declining at a 25.5% q-o-q annualized rate and non-residential investment declining by 0.2%, after a 6.0% increase in the previous quarter. In particular, non-residential structures spending increased by 1.1% q-o-q saar, while business equipment and software spending declined by 0.9% q-o-q. The 0.2% q-o-q decline in fixed private domestic investment is in our view a strong recession signal,

since private investment has decreased in every one of the last 10 US recessions by an average of 1.8% q-o-q (Table 1.1). Real fixed private domestic investment has actually declined on a q-o-q basis by a total of 3.2% during the last three quarters (Q3 07: -0.2% q-o-q, Q4 07: -1.0% q-o-q, Q1 08: -2.0% q-o-q), with an average quarterly decline of about 1.1%. Besides, the 0.2% q-o-q annualized decline in business investment in Q1 08 (non-residential private domestic investment), after the 6.0% q-o-q annualized increase in the previous quarter, signifies a considerable deterioration of the most cyclical component of real GDP. Real fixed capital formation is expected to decline sharper in the coming quarters, as the economic situation in the commercial real estate sector worsens.

Table 1.1
The private investment slump points to a recession

NBER US Recessions	Duration (in quarters)	Cumulative investment decline*	Average quarterly investment decline**
Q4 48 - Q4 49	5	-6.7%	-1.3%
Q2 53 - Q2 54	5	-0.4%	-0.1%
Q3 57 - Q2 58	4	-9.8%	-2.5%
Q2 60 - Q1 61	4	-6.4%	-1.6%
Q4 69 - Q4 70	5	-3.3%	-0.7%
Q4 73 - Q1 75	6	-18.3%	-3.1%
Q1 80 - Q3 80	3	-9.1%	-3.0%
Q3 81 - Q4 82	6	-9.8%	-1.6%
Q3 90 - Q1 91	3	-7.4%	-2.5%
Q1 01 - Q4 01	4	-6.8%	-1.7%
Average	4.5	-7.8%	-1.8%
Q3 07 - Q1 08	3	-3.2%	-1.1%

*Sum of q-o-q private domestic investment growth from start to end of recession.

**Average decline of q-o-q private domestic investment growth during recession.

In fact, net trade was the main driver of growth in Q1 08 that kept real economic activity in positive territory, accounting for 0.8% of real economic growth. It seems that the contraction of domestic demand has led to a significant deceleration in imports growth to -2.6% q-o-q saar in Q1 08 (contributing by 0.5% to real GDP growth) from 4.4% q-o-q saar in Q3 07 (subtracting a total of 0.7% from real GDP growth), offsetting the ongoing exports growth deterioration. Real exports

growth has gradually lost its momentum recorded in H2 07, declining from its recent peak of 19.1% q-o-q saar in Q3 07 (with a remarkable contribution of 2.1% to real GDP growth) to a modest 2.8% q-o-q saar in Q1 08 (with a contribution of only 0.3% to real GDP growth).

Moreover, the volatile inventory accumulation contributed positively to real GDP growth by 0.2% in Q1 08. Most of the stock building was in the manufacturing sector and was rather involuntary on the part of producers. Although the real change in private inventories remained relatively at low levels in Q1 08 (-\$14.4 billions), the positive contribution on the part of inventories may be largely attributed to base effects: private inventories declined by -\$18.3 billions in Q4 07 after their most recent peak of \$30.6 billions in Q3 07, resulting in a positive quarterly contribution to real economic activity in the first quarter of the year.

Table 1.2
Declining inventory investment during US recessions

NBER US Recessions	Duration (in quarters)	Decline in real GDP (bil. of 2008 \$)*	Decline in inventories (bil. of 2008 \$)*	Decline in inventories as a % of the decline in real GDP
Q4 48 - Q4 49	5	-35.5	-40.0	113%
Q2 53 - Q2 54	5	-66.8	-20.0	30%
Q3 57 - Q2 58	4	-103.9	-22.3	21%
Q2 60 - Q1 61	4	-39.0	-36.4	93%
Q4 69 - Q4 70	5	-48.8	-32.8	67%
Q4 73 - Q1 75	6	-162.8	-77.2	47%
Q1 80 - Q3 80	3	-136.7	-64.7	47%
Q3 81 - Q4 82	6	-173.5	-54.6	31%
Q3 90 - Q1 91	3	-108.0	-44.6	41%
Q1 01 - Q4 01	4	-41.8	-32.9	79%
Average	4.5	-91.7	-42.6	57%

*The declines in real GDP and private inventories correspond to the largest peak-to-trough decline in real GDP within each recession.

Looking ahead, we expect a significant deterioration in inventories' accumulation, since -according to previous academic research¹- in a typical recession declining inventory investment accounts for most of the decline in GDP. Indeed, looking at the peak-to-trough decline of real GDP and inventory investment during the last ten US recessions, we find that inventory investment declines dramatically during recessions, accounting for about 60% of the decline in real GDP on average (Table 1.2). However, inventory investment is a very noisy and volatile component of GDP which might not be very useful when evaluating economic activity, since there are expansion years during which inventories declined as much as they did during recessions. It is worth notifying that after excluding the 0.8% contribution from net trade, the 0.2% contribution from the stockbuilding, and the 0.4% contribution from government consumption and investment, US private domestic demand actually declined by 0.5%.

Future revisions of GDP data will likely reveal a gloomier picture of the economy in Q1

Even though upward revisions of construction data and the significant narrowing of the US trade balance suggest the possibility of a modest upward revision to real GDP growth in Q1 08, repeated downward revisions of past GDP data during recessions make current GDP growth often seem stronger than it actually turns out to be one year later. In order to assess the pattern of GDP revisions, we look at official revisions of GDP during the past four US recessions. Revisions of GDP data can be computed by comparing real time data, i.e. first releases of GDP estimates by the Bureau of Economic Analysis (BEA) with estimates of GDP after one year. Real time data are also available from the FRED database at the Federal Reserve Bank of St. Louis (www.stlouisfed.org).

Comparing initial releases of GDP data and the revised data one year later over the past 30 years, we find that real GDP data were systematically revised downwards during the last three out of four recessions by an average of 0.40% y-o-y (Table 1.3). In other words, real GDP growth has been systematically overestimated during NBER US recessions since 1980. This is due to revisions of the two major GDP components, private consumption expenditures and private fixed investment. Downward quarterly revisions of the initial consumption data one year later were often of the order of 0.23% y-o-y, whereas downward quarterly revisions of the initial investment data one year later

¹ Alan S. Blinder, Michael C. Lovell and Lawrence H. Summers (1981), "Retail Inventory Behavior and Business Fluctuations", *Brookings Papers on Economic Activity*, Vol. 1981, No. 2 (1981).

Blinder, Alan S. and Louis J. Maccini. (1991a), "Taking Stock: A Critical Assessment of Recent Research on Inventories", *The Journal of Economic Perspectives*, Vol. 5, no. 1, Winter 1991.

Fitzgerald, Terry J. (1997), "Inventories and the Business Cycle: An Overview", *Federal Reserve Bank of Cleveland, Economic Review*, Third Quarter.

were often larger, averaging 0.60% y-o-y. It is also worth noting that the magnitude of GDP revisions has systematically increased from -0.10% in the 1981 recession to -0.40% in the 1990 recession and -0.70% in the 2001 recession. Should GDP continue to be systematically overestimated during the current recession like in the previous three recession episodes, GDP growth in Q1 08 will likely turn out to be considerably softer or even negative in one year's time than currently estimated.

Table 1.3
Revisions of GDP and main components during past recessions

NBER US Recessions	Duration (in quarters)	GDP revision*	Private consumption revision*	Private investment revision*
Q1 80 : Q3 80	3	+0.33%	-0.03%	-0.60%
Q3 81 : Q4 82	6	-0.10%	-0.45%	+0.40%
Q3 90 : Q1 91	3	-0.40%	-0.03%	-1.00%
Q1 01 : Q4 01	4	-0.70%	-0.40%	-1.20%
Average	4	-0.22%	-0.23%	-0.60%

*Average revision of y-o-y GDP, private consumption and private investment growth during NBER US recessions (Initial release and revision one year later).

We expect a deep consumer-led recession with a GDP loss exceeding \$100bn

In contrast to the consensus view of a short and shallow V-shaped recession, we expect a deeper and more prolonged economic downturn led by the US consumer. Economic activity will contract in Q2 08 (and likely in Q3 08), with an anaemic rebound towards the end of the year and most of 2009. The current weakness of private consumption suggests that it will take a long time for the US economy to return to potential output growth levels. We note in passing that potential growth of the US economy has shifted down to 2.25%-2.50%. Consumer spending, which accounts for about 70% of the total US gross domestic product, remains under severe pressure, with Michigan's consumer sentiment index collapsing to a 26-year low of 62.9 in April 2008. In addition, according to the Conference Board, US consumer confidence has fallen back to 57.2 in May 2008, from 62.8 in April 2008, the lowest level since 1993.

The burst of the property market bubble and the tightening of credit conditions have clearly manifested themselves in a sharp deceleration of private consumption growth to 1% q-o-q saar in Q1 08, from 2.3% q-o-q saar in the previous quarter. Indeed, the ongoing housing market slump is

the worst housing recession since the Great Depression in 1929 and does not seem to bottom out in the near future. Both housing starts and new home sales declined further in March 2008 by about 37% on a y-o-y basis, while existing home sales decreased by roughly 20% y-o-y in March 2008. These declines have become evident in the sharp drop in house prices, which in turn weigh on personal consumption expenditures through the impact of home equity extraction. The Case-Shiller home price index for 20 major cities declined further by 14.4% y-o-y in March 2008, after a 12.7% y-o-y decline in February, while the same home price index for 10 major cities decreased by 15.3% y-o-y in March, after -13.5% in February, reporting the largest decline ever reported since 1987 that the series started. Falling house prices reduce home equity withdrawal, preventing households from spending due to negative wealth effects.

Adding to these problems, the severe credit crisis seems to be spreading into consumer credit, i.e. credit cards and auto loans, since the high rate of delinquencies and defaults on subprime mortgages has already led to constraints in consumer credit markets. The Fed's April Senior Loan Officer Survey revealed a continued tightening of lending standards for loans to both businesses and households. In particular, a net 55.4% of commercial banks were less willing to provide commercial and industrial (C&I) loans to large and medium corporations and a net 51.8% to small firms. Meanwhile, the gradual increase of the delinquency rate on consumer loans, from the recent trough of 2.7% in Q4 05 to 3.4% in Q4 07, has resulted in a net 22.6% of commercial banks having tightened standards on consumer-related loans, compared with a net 15.1% in January 2008. Such changes in lending conditions, in combination with increasing pressure on banks' balance sheets and risks for further future losses, are expected to result in a considerable deterioration in consumer credit growth over the following quarters.

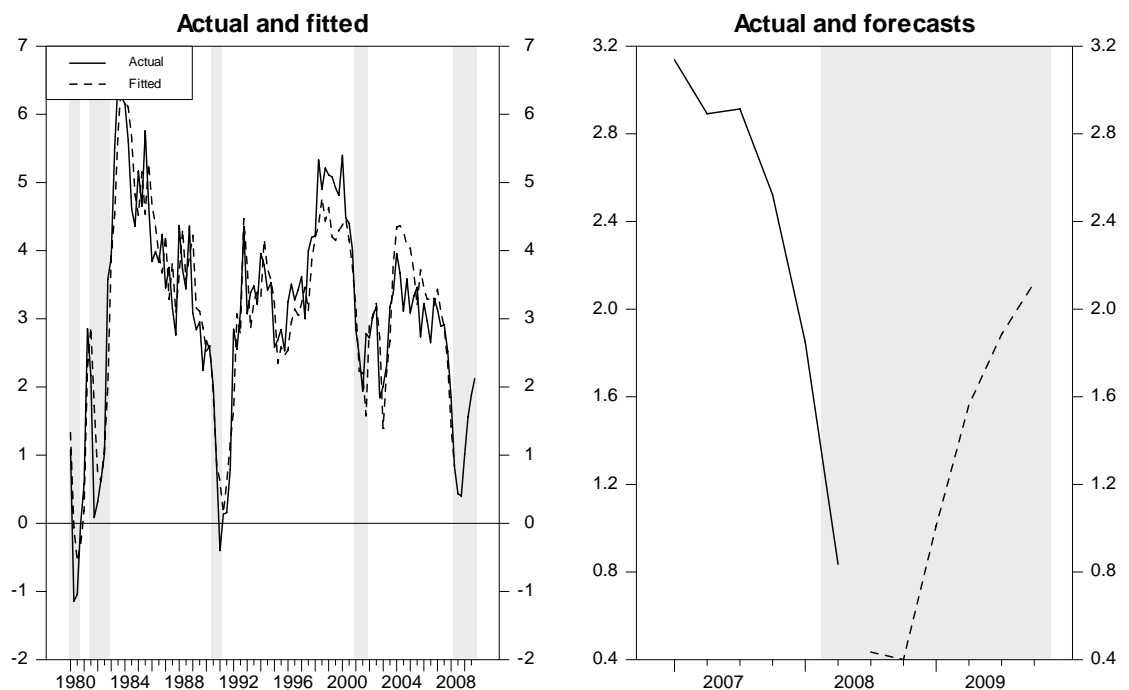
Consumer-led recessions are deeper

The sharp deceleration in personal consumption growth in Q1 08 suggests that the current recession will be both deep and painful. In fact, personal consumption growth has declined to 1% q-o-q annualized in the first quarter of 2008, from 2.3% in Q4 07, the lowest rate since Q4 1991. Looking forward, we expect the significant squeeze on private consumption to continue due to the housing downturn, a softening labour market and increasing food and energy prices. Our model estimates point to a considerable deterioration from 2.9% y-o-y consumption growth in 2007 to 1.1% y-o-y in 2008 (Figure 1.3). We believe that the current recession will affect consumers much more than the 2001 recession, when private consumption expenditures held up relatively well, increasing by 2.5% y-o-y during the recession (Table 1.4). In fact, as Figure 1.4 suggests, the

severity of past US recessions (as measured by the total loss in real GDP) is highly related to the weakness of private consumption (as measured by the y-o-y growth rate of private consumption during a recession). It seems that the current recession is closer to the recessions of 1980-1982 (in fact a double-dip recession) and 1990-1991, when consumer expenditures slowed considerably to 1.3% y-o-y in 1981-82 and 0.8% y-o-y in 1990 (Table 1.4).

Figure 1.3

Personal Consumption, y-o-y

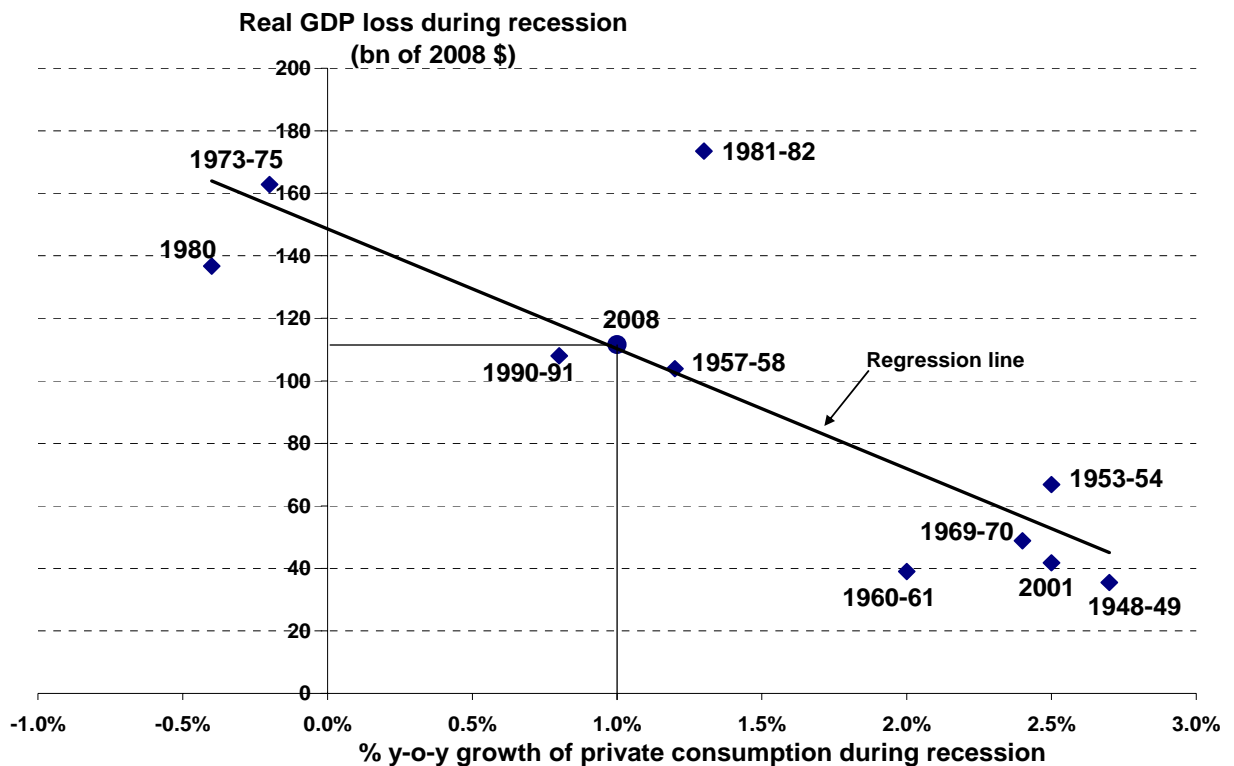


*Source: Eurobank EFG model estimates

It is worth noting that whenever private consumption growth has decelerated below 2% during the past 10 US recessions, the decline in real GDP has been severe. In particular, whereas the real GDP loss in the non-consumer-led recessions of 1948-49, 1953-54, 1960-61, 1969-70 and 2001 was between 35 and 70 billion of 2008 dollars, the real GDP loss during the consumer-led recessions of 1957-58, 1973-75, 1980, 1981-82 and 1990-91 was nearly three times higher, between 100 and 180 billion of 2008 dollars. If in fact real consumption growth decelerates to 1% y-o-y in 2008 from 2.9% y-o-y in 2007, as we expect, the real GDP loss for the US economy will be about \$112bn in current dollars.

The main negative driving force of consumption expenditures are, in our view, negative wealth effects, as well as the consumer confidence plunge which, according to our model, account for a full 1% decline of Q1 personal consumption growth. Although the \$170bn fiscal stimulus package will be partially offset by the ongoing credit crunch, the negative wealth effect from falling house prices and increasing oil and commodity prices that diminish households' purchasing power, tax rebates will have a positive effect on consumption and are likely to prevent consumption growth from moving into negative territory in H2 08. The fiscal injections will act to boost disposable income in the final part of 2008, resulting in a gradual rebound of private consumption growth in H1 09 (Figure 1.3).

Figure 1.4: GDP loss of current recession expected to exceed \$100bn



*Source: Eurobank EFG model estimates

Table 1.4
Consumption growth during past US recessions

NBER US Recessions	Duration (in quarters)	Average y-o-y consumption growth*	Decline in real GDP (bil. of 2008 \$)**
Q4 48 - Q4 49	5	2.7%	-35.5
Q2 53 - Q2 54	5	2.5%	-66.8
Q3 57 - Q2 58	4	1.2%	-103.9
Q2 60 - Q1 61	4	2.0%	-39.0
Q4 69 - Q4 70	5	2.4%	-48.8
Q4 73 - Q1 75	6	-0.2%	-162.8
Q1 80 - Q3 80	3	-0.4%	-136.7
Q3 81 - Q4 82	6	1.3%	-173.5
Q3 90 - Q1 91	3	0.8%	-108.0
Q1 01 - Q4 01	4	2.5%	-41.8
Average	4.5	1.5%	-91.7
2008 estimate	4	1.0%	-100.0

*Quarterly y-o-y consumption growth during each recession.

**The decline in real GDP corresponds to the largest peak-to-trough decline in real GDP within each recession.

The ongoing rise in inflation poses a serious threat to US economic growth,...

Confirming our longstanding view of an upsurge in consumer price inflation (see our September 2007 and February 2008 issues), headline consumer prices edged up to 4% y-o-y in Q4 07 and in Q1 08, from an average of 2.7% y-o-y in the first three quarters of 2007. For the first time since the 1970s, US inflation seems to be a considerable threat. Soaring global demand, in combination with global supply constraints, have led to booming energy, food and commodity prices, keeping US headline inflation close to 4%. Although each spring gasoline prices usually increase more than expected, and this tendency has become more evident in recent years, the recent rise in food and energy prices does not seem to be a short-lived, seasonal phenomenon. On the contrary, oil price pressures look increasingly persistent, as the robust global growth environment outweighs increases in supply.

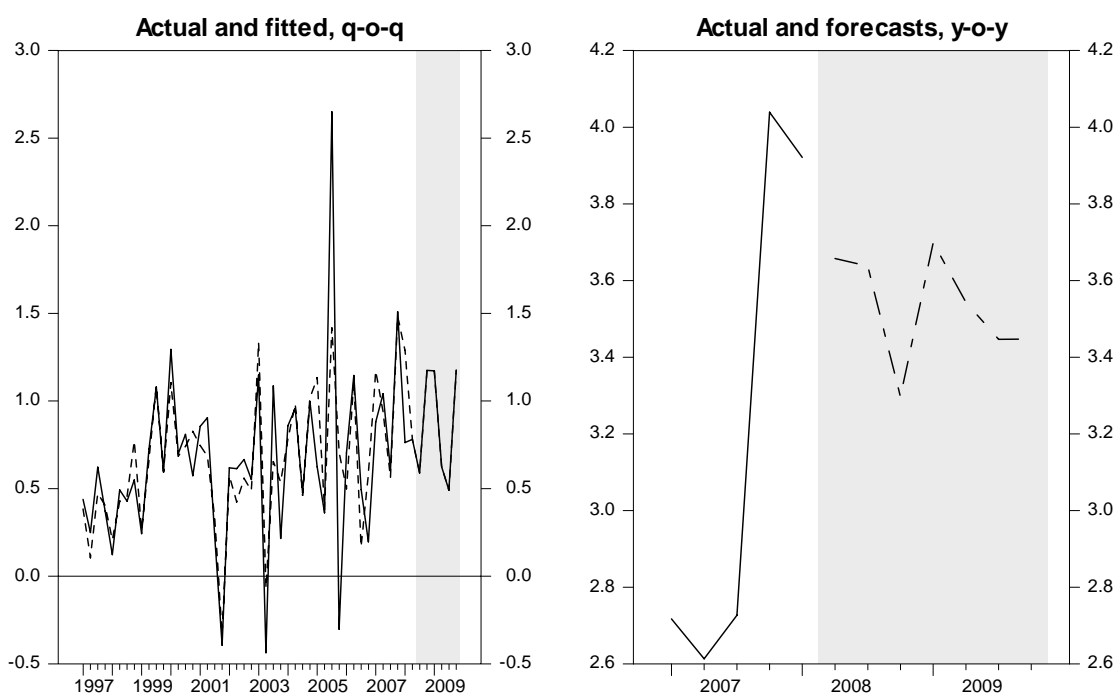
However, the recent moderation in headline inflation may be an early sign that slowing economic growth is now having a moderating effect on underlying price pressures. The CPI report was considerably better than expected in April 2008. The consumer price index increased 0.2% m-o-m,

with the y-o-y change easing to 3.8% from 3.9% in March 2008. Excluding food and energy prices, consumer price inflation increased 0.1% on the month, marking a 2.2% y-o-y increase from 2.3% y-o-y in the previous month.

At the same time, little inflationary pressures emerge from the labor market, on the back of lower growth of unit labor costs and compensation per hour, as well as higher productivity gains. Nonfarm productivity rose at a stronger than expected 2.2% y-o-y growth rate in Q1 08, mostly due to the largest drop in hours worked in five years. The solid productivity performance helped contain unit labor cost growth. Nonfarm unit labor cost increased by 0.2% on a y-o-y basis in Q1 08, down from 0.9% y-o-y in Q4 07, reporting the smallest y-o-y increase since Q2 2004. Although compensation data are often subject to significant revisions, leading consequently to large revisions in unit labor costs, the downward trend in unit labor costs since Q3 07 suggests that labor costs do not yet constitute a reinforcing factor for inflation.

Figure 1.5

Headline CPI Inflation

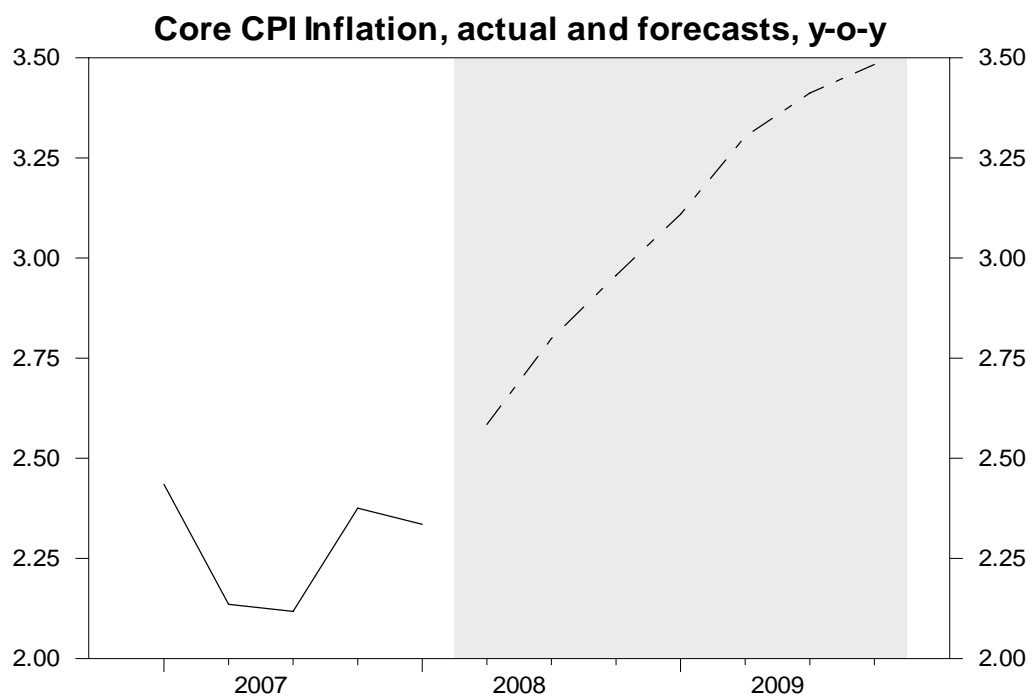


*Source: Eurobank EFG model estimates

Looking forward, the labor market slack and some favorable base effects stemming from the commodities' market should put somewhat greater downward pressure on inflation. With energy and agricultural prices remaining at current levels, our estimates suggest that headline inflation will gradually moderate from 3.8% y-o-y in April 2008 to 3.3% by December, with a y-o-y average growth rate of 3.6% for 2008, up from 3% in 2007 (Figure 1.5).

However, we continue to believe that core inflation will keep rising towards 2.7% y-o-y in 2008 from 2.3% in 2007, since lagged effects from increased food and energy prices and a depreciated dollar will feed through during the remaining of 2008 (Figure 1.6). The sharp rise in commodity and raw material prices has already been reflected in the core producer price index, which has gradually increased from 2.0% in December 2007 to 2.8% in March 2008. It seems to us that in an environment of generalized inflation pressures, businesses seem to be passing on higher input prices to the final consumer.

Figure 1.6



*Source: Eurobank EFG model estimates

Furthermore, measures of inflation expectations have been steadily increasing since the end of 2007, with the University of Michigan inflation expectations index over next 12 months reaching 4.8% in April 2008, from 4.3% in March 2008. However, we should note that this upward pressure

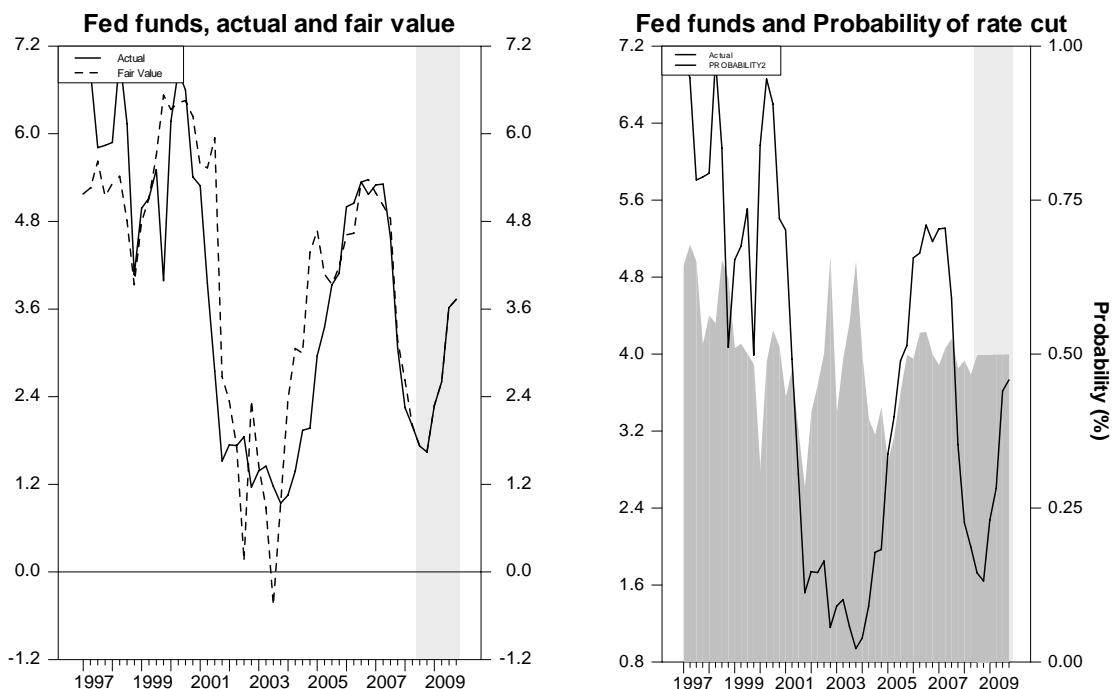
may be partially offset by an expected deceleration in the owner's equivalent rent and other rent categories of the CPI, which account for about 40% of core CPI inflation. Rents and imputed housing costs' growth seems to be decelerating, in the wake of the housing market downturn.

...reinforcing doubts about the sustainability of the US recovery in 2009

As broadly expected, the FOMC lowered further the Fed funds rate and the discount rate by 25bp to 2% and 2.25% respectively at its April 30 meeting. By removing the statement regarding downside risks to economic growth, the Fed has effectively moved from an easing to a rather neutral bias, pointing to a pause for several months in order to assess the impact of the total of 325bp rate cut since the start of the credit crisis last summer. However, we do believe that the deterioration of the state of the real economy and the tightening of credit conditions may prompt one more rate cut later this year to 1.75% or even 1.50% (Figure 1.7).

Figure 1.7

Fed funds rate



*Source: Eurobank EFG model estimates

The path of Fed funds rates will largely depend on the inflation development as well as the state of the labor market. Our standard policy reaction function suggests that the Fed sets interest rates in response to developments of core PCE inflation and the tightness of the labor market (the inverse of the product of the rate and the median duration of unemployment). Although the unemployment rate declined slightly to 5.0% in April 2008 from 5.1% in March, the median duration of unemployment jumped to 9.3 in April 2008 from 8.1 in March. Looking back at previous US recession episodes, the median duration of unemployment increased on average by 4.5 weeks from peak to trough of each business cycle (Table 1.5). However, we do expect a rather smaller increase in median duration. Our central scenario suggests that the median duration of unemployment increases gradually to about 10 weeks by year-end, resulting in a 25-50bp further cut in Fed funds to 1.75% or 1.50%. Should the median duration increase by 4.5 weeks as suggested by past experience, from the recent trough of 5 to 12 weeks by year-end, then the current Fed easing cycle will end when Fed funds fall back to 1.25%.

Table 1.5
Median duration of unemployment at past recessions

NBER Recessions	Median duration at the peak of the business cycle	Median duration at the trough of the business cycle	Increase from peak to trough
12/69 - 11/70	04/69: 4.0	05/71: 6.7	+2.7
11/73 - 03/75	08/73: 4.9	11/75: 9.5	+4.6
01/80 - 07/80	08/79: 4.8	09/80: 7.7	+2.9
07/81 - 11/82	06/81: 6.6	05/83: 12.3	+5.7
07/90 - 03/91	04/90: 4.8	10/94: 10.0	+5.2
03/01 - 11/01	09/00: 5.2	06/03: 11.5	+6.3
Average	5.0	9.6	+4.5
April 2008	12/06: 7.5	04/08: 9.3	+1.8

*Source: Eurobank EFG model estimates

The main risk of the current monetary policy stance is that with core inflation running way above the 2% Fed's comfort zone, the central bank will soon switch its monetary policy to a tightening bias in order to control inflationary pressures. As the economic activity gradually recovers from its current weakness and lending conditions improve moving towards 2009, the FOMC may be forced to proceed to dynamic increases in the Fed funds policy rate above 3% in H1 09, running the risk of pushing the economy into a deeper US recession in 2009-2010.

2. The Euro area economy

Dimitris Malliaropoulos, Olga Kosma

- Despite the rebound of real economic activity in the first quarter of the year, economic activity is expected to decelerate below trend in 2008, due to a significant slowing in final demand.
- The deterioration in business and consumer confidence in recent months suggests that real GDP growth will slow significantly in the coming quarters.
- Given a weakening global growth and the euro appreciation, there are increasing risks of a sharper downturn in external demand growth.
- Despite some temporary signs of easing in April 2008, inflation will likely remain above 3% during the remaining of 2008 due to rising energy and food prices.
- Unless headline and core inflation start moving back below 3%, the ECB will not cut its key policy rate. This will likely happen towards year-end, when inflation will have started to moderate and growth will be below trend.

Euro area real GDP growth rebounded strongly in Q1 08, expanding by a solid 0.7% q-o-q, after a less buoyant 0.4% q-o-q growth rate recorded in Q4 07. On a y-o-y basis, real GDP growth remained stable at 2.2%, compared to the previous quarter. The upside surprise was concentrated particularly in the German GDP, which rose by 1.5% q-o-q, marking the sharpest q-o-q increase in almost 12 years. Although the GDP breakdown is not available yet, it seems that the Euro zone started the year on a firm footing. Economic growth has so far been resilient to the turbulent global economic environment. However, there are increasing signs of a slowdown in economic activity, since negative effects from the financial turmoil, the appreciation of the euro against the dollar and rising energy and food prices are gradually becoming more evident in the Eurozone countries.

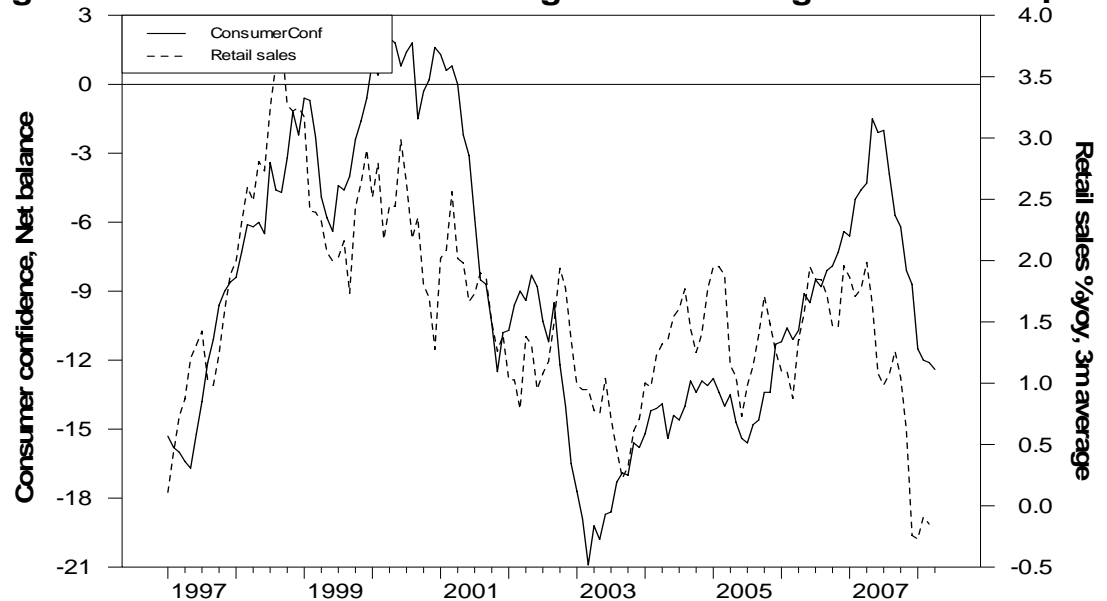
The deterioration in retail sales and consumer confidence suggests a negative outlook for the consumer sector

Real private consumption has been on a downward trend during the last quarter of 2007, declining by 0.1% q-o-q, with the y-o-y growth rate easing to 1.2% in Q4 07 from 1.7% in Q3 07. After contracting by 0.8% q-o-q in Q4 07, retail sales rebounded only temporarily in January 2008, reporting a 0.6% m-o-m increase. Although private consumption expenditures might have risen modestly in Q1 08 after a 0.1% decline in Q4 07, the outlook continued to be unfavourable during the following months, with retail sales declining by 0.2% and 0.4% on a m-o-m basis in February

and March 2008 respectively. On a y-o-y basis, retail sales declined sharply by 1.1% in March 2008, reporting the largest y-o-y decrease ever reported since the series started in 1995 (Figure 2.1).

Figure 2.1

Tighter credit conditions & rising inflation weigh on consumption

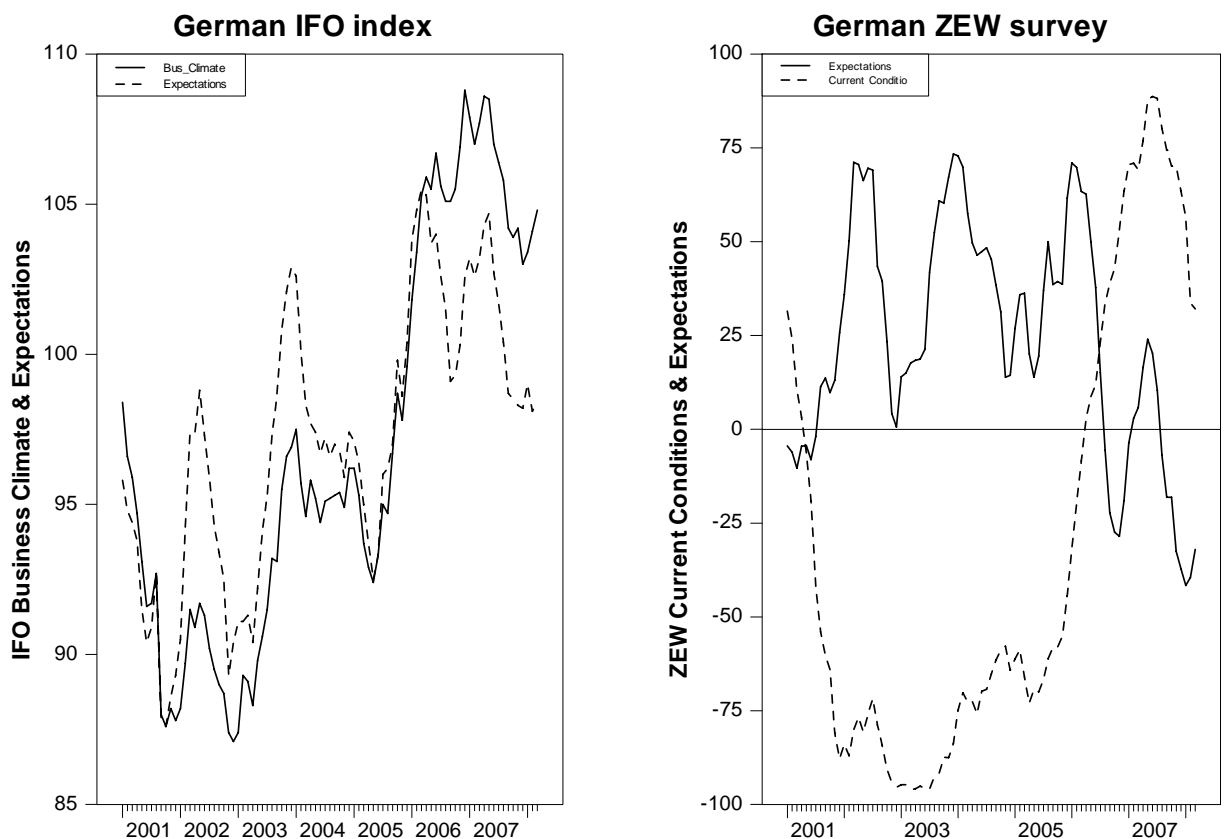


Consumer confidence in the Eurozone has deteriorated severely for the ninth consecutive month in April 2008, strongly affected by tighter monetary conditions and the recent surge in energy and food prices which erode households' purchasing power. Despite a generally healthy labor market, the European Commission's measure of consumer confidence declined further to -15 in May from -12 in April, its lowest level since September 2005, reflecting a worsening economic outlook for consumption (Figure 2.1). Lending growth to consumers has continued to decline in March, while the pace of the slowdown in credit growth for house purchasing accelerates. The latest ECB Bank Lending Survey confirmed that credit standards for house purchase and consumer credit continue to tighten, in response to the deterioration in the economic outlook for the economy. The survey suggests that lending growth will probably ease in the coming quarters, so consumers are likely to increase their savings against spending.

The credit crunch seems to be putting a significant squeeze on investment

The ECB Bank Lending Survey revealed that banks' credit standards to enterprises also tightened further in Q1 08, with banks raising the margins on loans. The tightening of banks' credit conditions for companies, in combination with a decelerating demand, will probably lead to reduced investment plans. Signs of an upcoming slowdown have been evident across Eurozone countries, with confidence deteriorating significantly over the past few months.

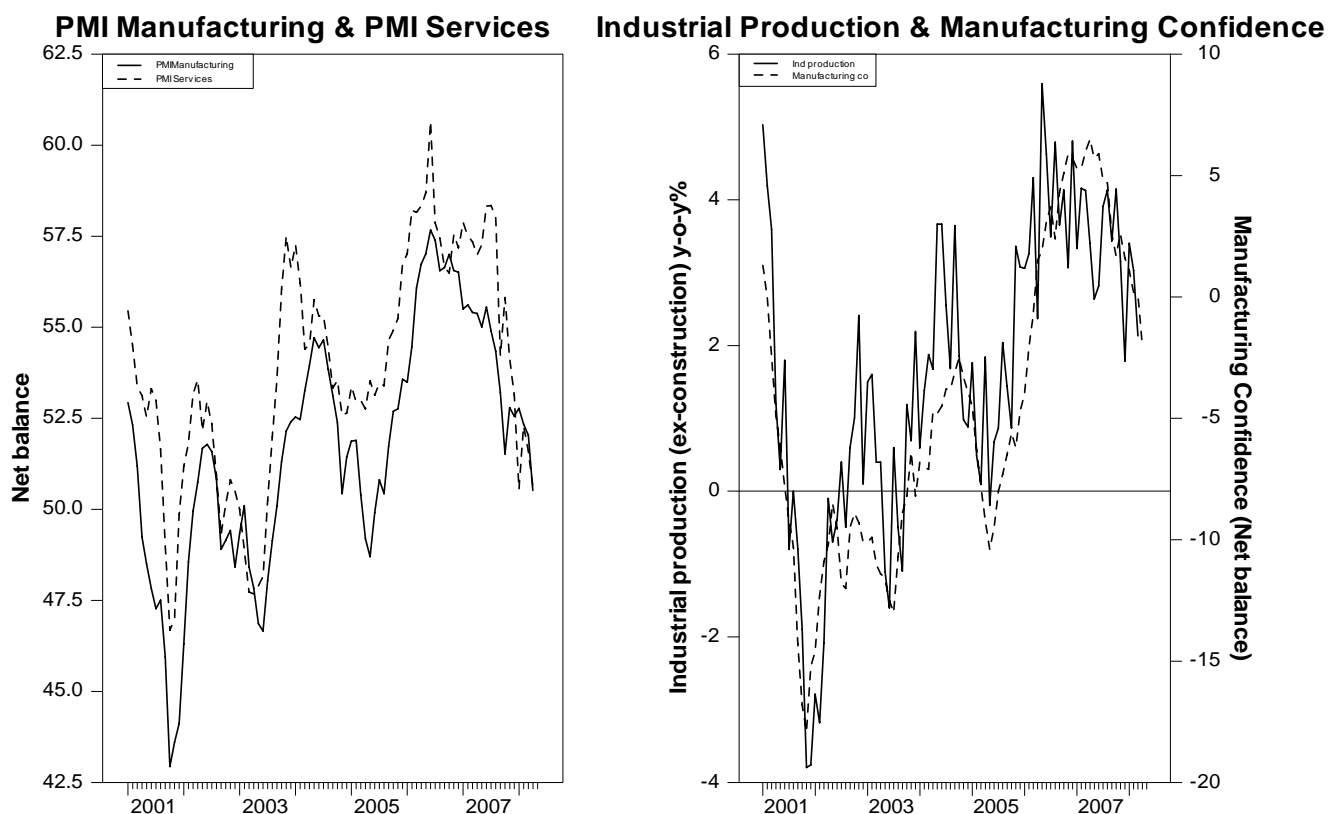
Figure 2.2



Although the German ZEW survey of current business conditions increased from 33.2 in April 2008 to 38.6 in May 2008, reflecting probably the surprising real GDP growth rate in Q1 08, the index measuring market participants' expectations eased to -41.4 in May, after -40.7 in April. A majority of the surveyed financial experts expect growth to moderate in the coming months. Furthermore, the economic sentiment indicator of the European Commission plunged to 97.1 in April from 99.6 in March 2008, the lowest level since August 2005. On the contrary, the IFO business expectations

index increased slightly from 96.7 in April 2008 to 97.3 in May 2008, revealing that whereas financial market participants are particularly worried about the economic prospects of the euro area economy, business themselves do not yet express the same pessimism. However, it is worth noting that the reported increases in the IFO business climate, the IFO business conditions and the IFO business expectations indices in May did not fully offset the decline marked in April. In particular, the German IFO index reported its sharpest monthly decline since Q3 2001 in April 2008 (business climate index: -2.4 to 102.4, current assessment index: -3.1 to 108.4 and expectations index: -1.7 to 96.7), so even after the modest rebound of the index in May, it is still well below the level seen two or even three months ago (Figure 2.2).

Figure 2.3



Confirming expectations of moderating economic activity, the Eurozone PMI manufacturing index declined by 1.2 points to 50.7 in April and to 50.5 in May 2008, the lowest level since August 2005 (Figure 2.3). While the manufacturing index in Germany and France remains above the 50-point-level indicating expansion, manufacturing production in Italy and Spain deteriorates, since the index

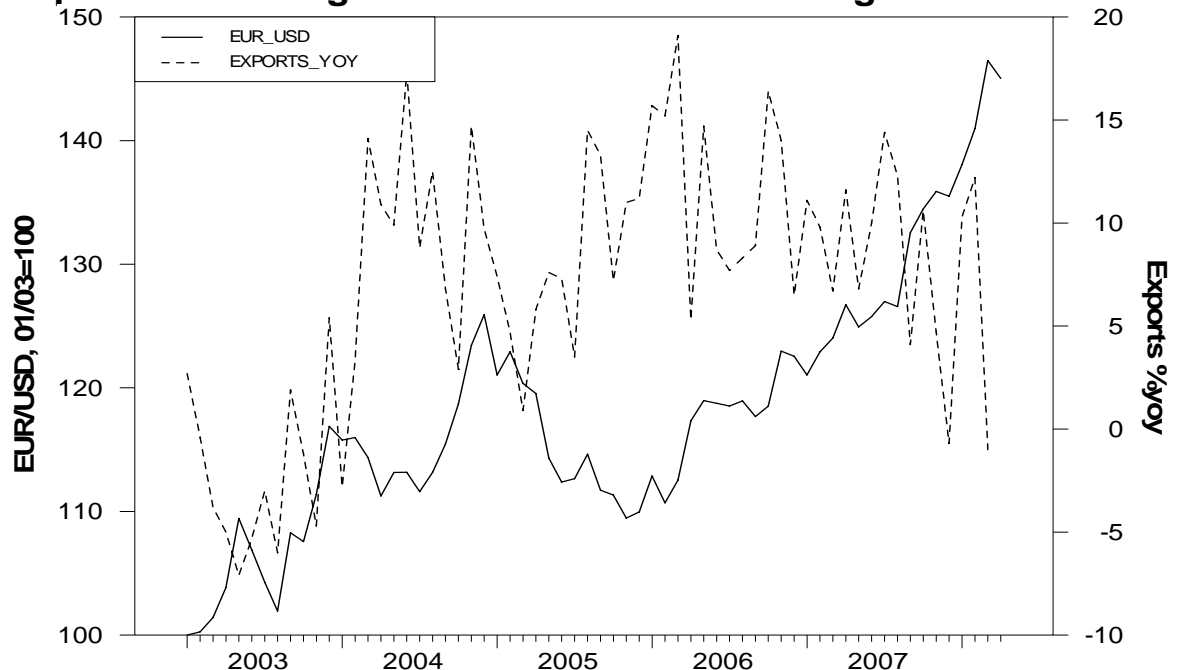
remains below the 50-points-mark, signaling a contraction of the manufacturing sector. The decline in the composite PMI index from 51.9 in April to 51.1 in May reflected primarily a sharp fall in the services index from 52.0 in April to 50.6 in May 2008. Both Germany and France lost momentum considerably, with PMI services index marking the lowest reading since July 2003.

In addition, the European Commission's industrial confidence indicator fell sharply in April, from 0.1 in March to a 26-month low of -2.0. The ongoing manufacturing confidence deterioration has been verified by industrial production numbers. Euroland's industrial production (excluding construction) actually declined by 0.2% m-o-m in March 2008, after a 0.3% m-o-m increase in the previous month, bringing the y-o-y growth rate down to 2.2%, from 3.5% in January 2008 (Figure 2.3). Industrial new orders fell by 1% m-o-m, after a 0.2% increase in the previous month. On a y-o-y basis, total manufacturing working on orders is also on a downward trend, declining dramatically by 2.5% in March 2008, after a 9.9% y-o-y increase in February. Looking forward, slowing domestic demand and global demand, as well as the appreciation of the euro against the dollar, is expected to result in additional easing in the manufacturing sector.

Given a weakening global growth and the euro appreciation, exports' deceleration remains a considerable risk over the coming quarters

Apart from a slowing domestic demand, external demand also seems to have lost its momentum reported in the first two months of 2008. In particular, after an average y-o-y growth rate of about 11% in January and February 2008, exports declined by 1% y-o-y (Figure 2.4). Export growth, which was supposed to partially offset the deceleration in domestic demand, maintaining a soft landing for the Eurozone countries, seems to reflect the negative effects from the appreciation of the euro against the dollar and the slowing external demand from the US, as well as the emerging economies. Survey measures of exports orders verify the ongoing deceleration; the PMI manufacturing index for exports orders eased further below 50 in May 2008, to 48.4 from 49.7 in April 2008, suggesting increasing risks of a sharper downturn in external demand growth.

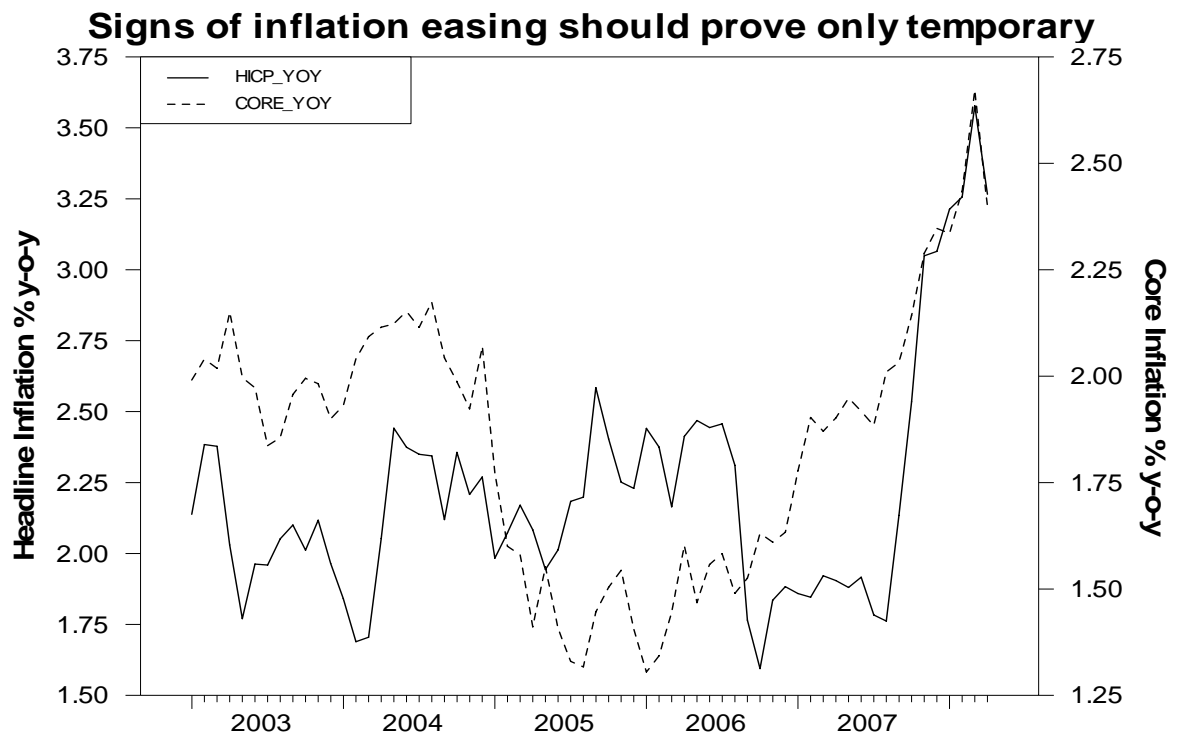
Figure 2.4

Exports are losing momentum on the back of global slowdown**Despite some temporary signs of easing, inflation will likely remain at very high levels,...**

While eurozone inflation moderated to 3.3% y-o-y in April 2008, from the peak of 3.6% y-o-y reported in March, inflation has been gradually increasing well above ECB's comfort zone of equal to or below 2% since September 2007. HICP benefited from the easing of core inflation. Excluding the more volatile components of the headline index, energy and food prices, core inflation moderated to 1.6% y-o-y in April, from 2% y-o-y in March 2008 (Figure 2.5). However, the recent easing in price pressures may prove only temporary due to one-off seasonal factors; the unusually early timing of Easter led to a surge in HICP categories such as hotels and restaurants (3.6% y-o-y in March 2008 from 3.3% y-o-y in February) and recreation and culture (0.6% y-o-y in March 2008 from 0.0% in February). As a result, core inflation jumped to 2% y-o-y in March 2008, the highest level since April 2003, and then fell back to 1.6% due to a seasonal fall in holiday costs. High energy and food prices, in combination with the increasing level of consumers' inflation expectations, point to a more extended period of mounting inflationary pressures. Besides, corporations seem to be passing higher input prices to consumers. The producer price index of consumer goods has been on an upward trend since July 2007, with y-o-y growth peaking at 4.7% in March 2008, the highest y-o-y growth rate since the series started in 1985, suggesting that core CPI inflation will probably increase in the coming months. Therefore, we have revised our Eurozone

inflation forecasts and expect headline inflation to edge up to 3.5% y-o-y in 2008, from 2.1% in 2007. Although we believe that inflation will moderate towards year-end, the improvement in the inflation outlook will become evident during the course of the next year, easing to about 2.6% on average in 2009.

Figure 2.5



...preventing the ECB from cutting its key policy rate in response to the economic slowdown

Although there are increasing signs of a more protracted slowdown across the Eurozone countries, inflation pressures have been keeping the ECB on hold. In our February issue, we have been expecting the ECB to ease by mid-year. Downside risks to economic outlook have been nicely confirmed, but inflation has surprised on the upside. A comparison of the current economic situation in the Euro area with spring 2001, when the ECB started easing its monetary policy due to the 2001 US recession, suggests that the ECB cannot cut policy interest rates as long as inflation stays above 3%. As suggested by Table 2.1, headline inflation is currently 0.7% higher than the 2.6% y-o-y inflation rate reported in May 2001. However, the composite output PMI, a useful indicator of the current economic activity, currently stands at 51.1, well below the May 2001 level of 52.0. The deterioration in output growth reflected a contraction in the amount of incoming new business placed at manufacturing and service sector compared to the previous month, and it was actually the first decline reported since July 2003. While the manufacturing sector looks relatively

stronger than in 2001, the services sector is undoubtedly weaker. The PMI services index deteriorated to 50.6 in May 2008, the lowest level since July 2003, while business expectations for the year ahead in the service sector fell to the lowest since September 2001, suggesting further economic weakness in coming months. Had inflationary pressures been close to the 2001 levels, the ECB would have eased by now, as our forecasts suggested three months ago. If headline and core inflation starts moving back below 3% towards year-end and growth remains well below trend, the ECB will probably be inclined to ease monetary policy.

Table 2.1
ECB: Monetary easing in 2001-2003

Date	ECB policy rate change	Headline CPI y-o-y	Core CPI y-o-y	PMI Composite Output Index*	PMI Manufacturing Index**	PMI Services Index***
11/05/01	4.75 to 4.50: -0.25%	2.6%	1.8%	52.0	48.5	52.5
31/08/01	4.50 to 4.25: -0.25%	2.8%	2.1%	51.0	47.5	51.7
18/09/01	4.25 to 3.75: -0.50%	2.8%	2.1%	50.3	45.9	49.0
09/11/01	3.75 to 3.25: -0.50%	2.5%	2.4%	45.2	43.6	47.0
06/12/02	3.25 to 2.75: -0.50%	2.3%	2.4%	51.1	48.4	50.5
07/03/03	2.75 to 2.50: -0.25%	2.2%	2.0%	50.0	48.4	47.7
06/06/03	2.50 to 2.00: -0.50%	2.1%	2.2%	48.2	46.7	48.2
Average		2.5%	2.1%	49.7	47.0	49.5
Current		3.3%	1.6%	51.1	50.5	50.6

*The Composite Output PMI is a weighted average of the Manufacturing Output Index and the Services Business Activity Index.

**The Manufacturing Output Index is based on the survey question "Is the level of production/output at your company higher, the same or lower than one month ago?"

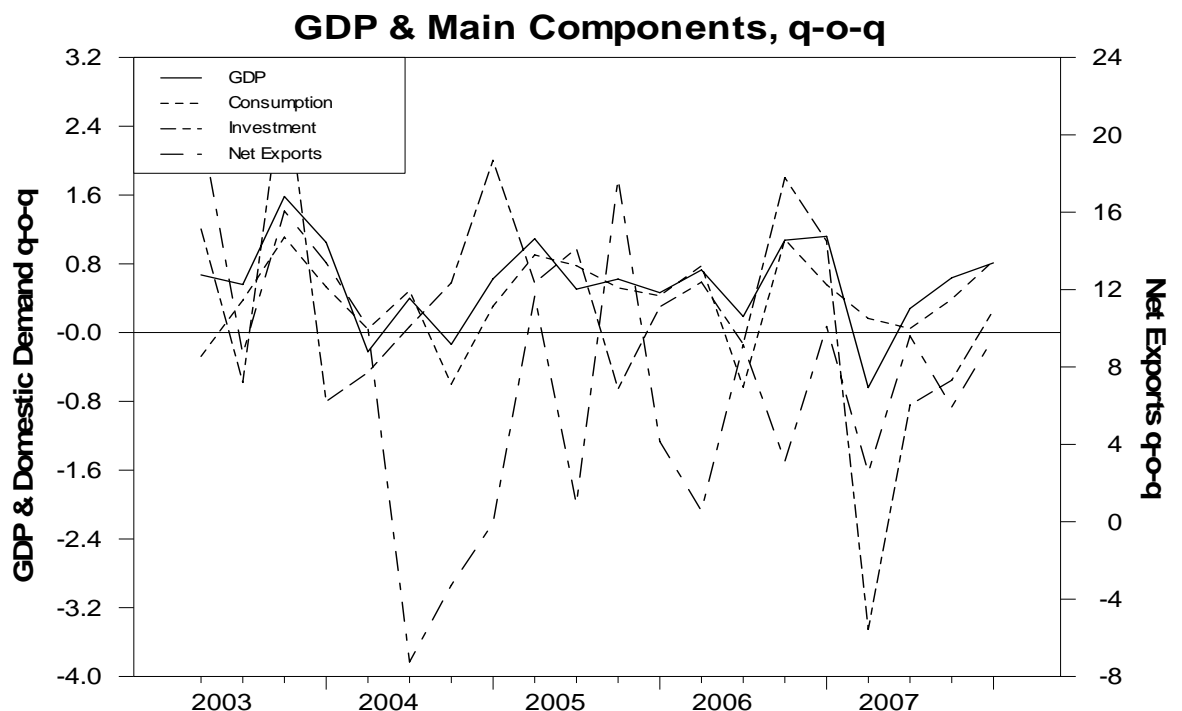
***The Services Business Activity Index is the direct equivalent of the Manufacturing Output Index, based on the survey question "Is the level of business activity at your company higher, the same or lower than one month ago?"

3. The Japanese economy

Dimitris Malliaropoulos, Olga Kosma

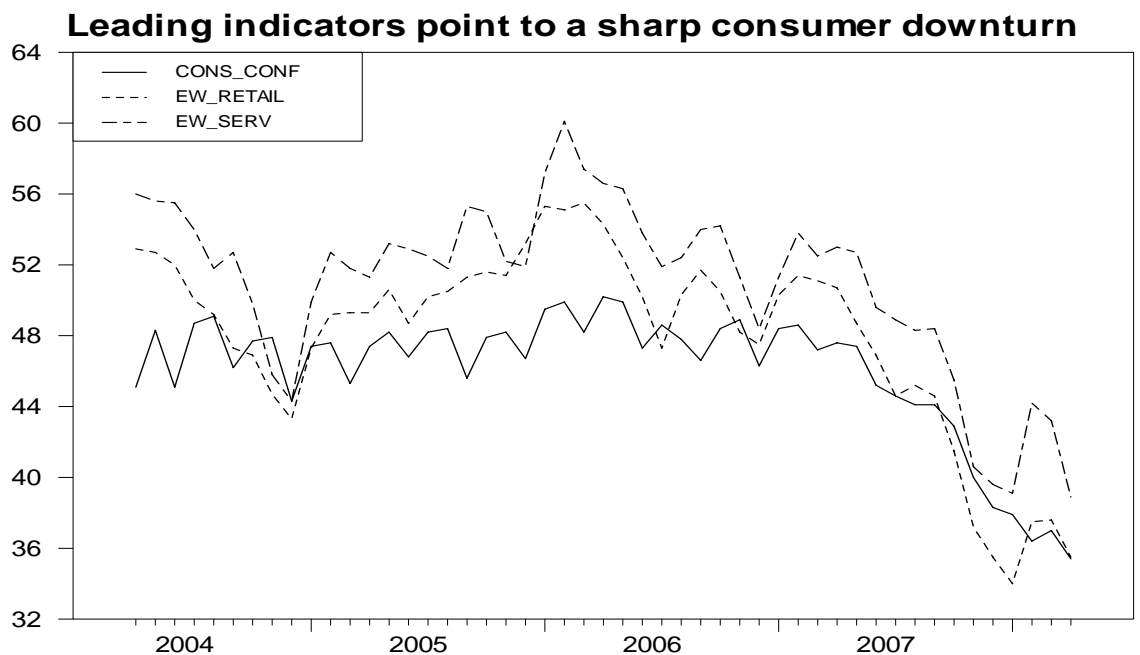
- Real GDP increased at an unexpected 3.3% q-o-q saar in Q1 08, driven mainly by private consumption expenditures, real exports, as well as residential investment.
- However, the strong economic growth seems rather unsustainable in the coming quarter, given that prospects for consumption and net trade are unfavorable.
- Consumer confidence indicators suggest that the recent price acceleration and deteriorating economic conditions will probably undermine real disposable income and, consequently, real personal consumption expenditures.
- After five years of robust growth, private capex seems to be on a correction mode in the beginning of 2008. Leading indicators point to further weakness ahead, on the back of corporate earnings correction during 2008.
- Although in 2007 and in Q1 08 net exports were the main source of growth, the strength of net trade as a growth engine will probably fade during the remaining of 2008.
- With deflationary fears receding, we believe that there is little likelihood for the BoJ to ease monetary policy even if the economy shows further signs of slowing.

Figure 3.1



The surge in real economic activity in the beginning of 2008 seems rather unsustainable,...

Real GDP increased by 0.8% q-o-q in Q1 08, outpacing Q4 07 GDP data which were revised downwards significantly, from 0.9% q-o-q to 0.6% q-o-q, mainly due to a sharp downward revision in non-residential capital expenditure. The main drivers of growth in the first quarter of the year were private consumption expenditures, real exports, as well as residential investment which turned into positive territory for the first time in five quarters. In particular, net exports and private domestic demand contributed 0.5% and 0.4% to GDP growth, respectively, public fixed investment contributed 0.2%, while inventories subtracted 0.3% from real GDP growth (Figure 3.1).

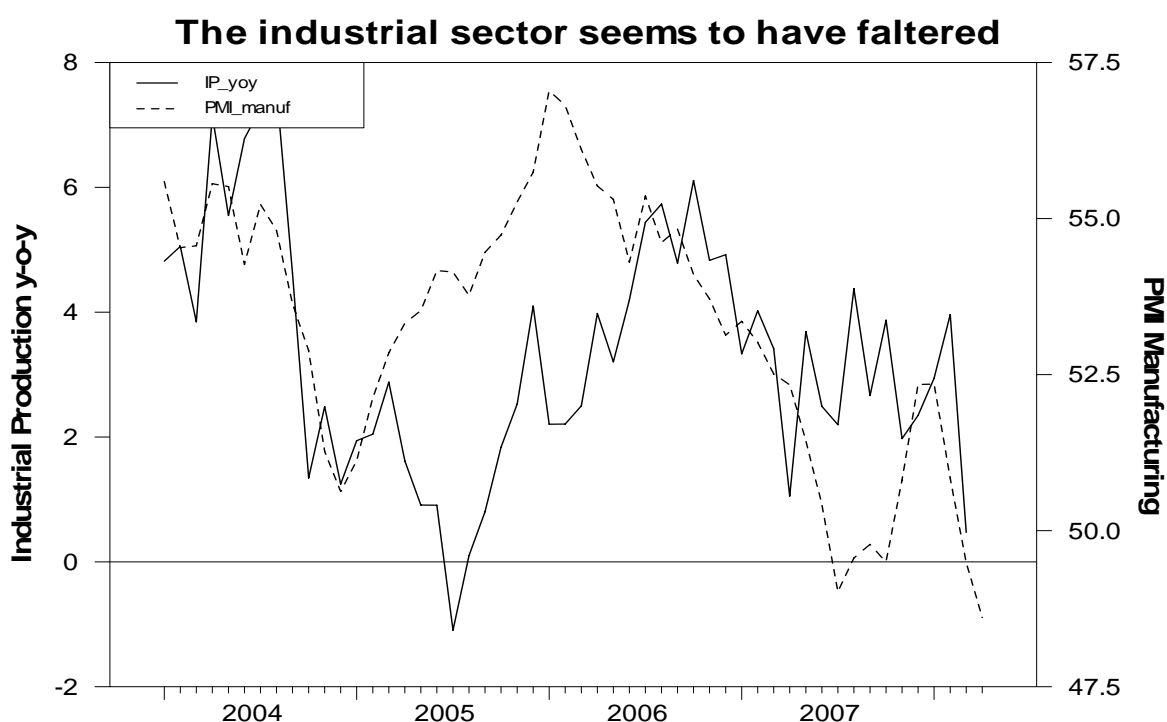
Figure 3.2**...given the negative outlook for domestic demand**

Although private consumption expenditures increased by a robust 0.8% q-o-q growth rate in Q1 08, contributing a full 0.5% to real economic growth, the unexpected consumption surge may be partially attributed to the extra day leap year effect. Retail sales rose by a modest 0.1% in April 2008, after peaking in February (3.2% y-o-y), marking a 8.3% monthly decline. Meanwhile, consumer confidence (composite index) declined further in April 2008 to a five year low of 35.4, from 37.0 in March, pointing to a rather downbeat personal consumption outlook for the coming quarters (Figure 3.2). Given that the recent price acceleration and the deteriorating economic conditions undermine real disposable income, we expect a considerable consumer depression in

Q2 08. The rebound reported in the first quarter will probably not be sustained, given the weak wage growth and rising energy and food prices. Furthermore, while unemployment has remained relatively stable at 3.8% in March, employment has been declining by 0.2% on a y-o-y basis in February and March, putting additional pressure on the consumer. New openings to applicants' ratio and job offers reported sharp declines in March, suggesting that the weakening corporate profitability has now started to impact on labor market conditions. The Economy Watchers' Survey also suggests that sentiment regarding current and future conditions among consumer-related firms (retail and services) declined further in April 2008, and remains well below the threshold of 50, indicating a deteriorating consumption outlook (Figure 3.2).

While residential investment contributed 0.1% in Q1 real GDP growth, the March data for housing starts revealed a y-o-y decline of about 15.6%, compared to the 5-6% drop in the first two months of the year, raising doubts about a rapid recovery of the housing construction sector. Meanwhile, the positive contribution from private housing investment was totally offset by the negative contribution of 0.1% from non-residential investment. In fact, private-sector capital expenditures decreased for the first time in the past nine months and the recent corporate earnings decline by 0.7% in Q3 07 and 4.5% y-o-y in Q4 07 marks further capex weakness for the coming quarters.

Figure 3.3



Industrial production fell by 3.4% m-o-m in March 2008, with the y-o-y growth rate declining to 0.5% from 4% in the previous month. The PMI manufacturing index eased further to 48.6 in April from 49.5 in March 2008, giving a strong signal of a continuing weakness in the manufacturing sector (Figure 3.3). In addition, the Reuters Tankan survey conducted in May revealed a sharp deterioration in the manufacturing Diffusion Index (DI) from +8 in April to -2 in May 2008 (the lowest level since summer 2003), marking the fifth consecutive monthly decline. Economic conditions have worsened for the services sector as well, with the nonmanufacturing DI deteriorating to 0 in May from +2 in April. Given the outlook for new machinery orders in the manufacturing sector, which have been declining by an average monthly rate of 8% in February and March 2008, there are increasing signs of faltering capital investment growth. Based on a survey of major machinery makers, the Cabinet forecast for Q2 08 machinery orders revealed a -10.3% q-o-q decline, the sharpest drop ever reported since Q2 1998. Although new machinery orders in the nonmanufacturing sector increased in March 2008 by about 22% y-o-y, the Cabinet Office forecast for machinery orders in the nonmanufacturing sector unfolded an additional sign of domestic demand weakness, marking an even sharper decline of about -18.9% on a q-o-q basis for the second quarter of the year.

The strength of net exports as the main driver of growth will probably fade

This generalized weakening in the corporate sector seems to be reflecting deteriorating export prospects. Exports increased by 4% y-o-y in April, after a 2.3% y-o-y growth in March, since the large decline in exports to the US was largely offset by continued strength in Asia and Europe. The trade surplus posted another huge y-o-y decline of roughly 44% in April, since import growth surged to 12% y-o-y on the back of higher oil prices. Although in 2007 and in the first quarter of 2008 net exports were the main source of growth, the strength of net trade as a growth engine will probably fade during 2008. Exports in China, which have been increasing at double-digit growth rates during the past seven years, moderated considerably into single-digit growth rates in the beginning of 2008. This fact, in combination with a slowing US demand and the yen appreciation against the dollar, point to a deteriorating outlook for net trade. Meanwhile, export orders declined by 16.1 m-o-m in March (-13.7% y-o-y), after a 13.2% m-o-m decline in February (+5.9% y-o-y), posting the second consecutive monthly decline. Besides, the PMI subindex of export orders has declined sharply in recent months, reaching 45.2 in April 2008, the lowest level reported since 2003.

BoJ will probably remain on hold since deflationary risks are beginning to fade

Deflationary fears are beginning to fade since core inflation is finally starting to catch-up. The strong pace for the BoJ's preferred measure of inflation, which only excludes fresh food, was totally generated by oil prices (contributing 0.7%), as well as non-fresh food prices (contributing 0.4%). As a result, the national core CPI increased by 1.2% y-o-y in March from 1% in February. The March inflation rate posted its sharpest y-o-y increase since March 1998, with 1.1% of the gain stemming from oil and food products. After excluding the effect of energy and food prices, the underlying trend in the core CPI has moved into positive territory for the first time in almost a decade, rising by 0.1% on a y-o-y basis. Defying weak domestic demand, consumer price inflation seems to be highly driven by increasing wholesale prices. Domestic Corporate Goods Price Index (CGPI) increased by an average of 3.8% y-o-y in March and April 2008, the fastest growth rate in more than 25 years (Figure 3.4).

Figure 3.4

With deflationary risks gradually receding, we expect the BoJ to remain on hold throughout 2008. Although the BoJ's outlook for 2008-09 published in April reveals a rather optimistic view on economic activity, it recognizes substantial downside risks for 2008. We believe that there is little

likelihood for the BoJ to cut rates even if the economy shows further signs of slowing, since rising inflation is holding rates negative in real terms. BoJ's new Governor Masaaki Shirakawa, who is considered to be a rate hike supporter, should ensure that the Japanese economy shows definite signs of expansion and that the US economy has started to improve before proceeding to a tightening monetary policy bias.

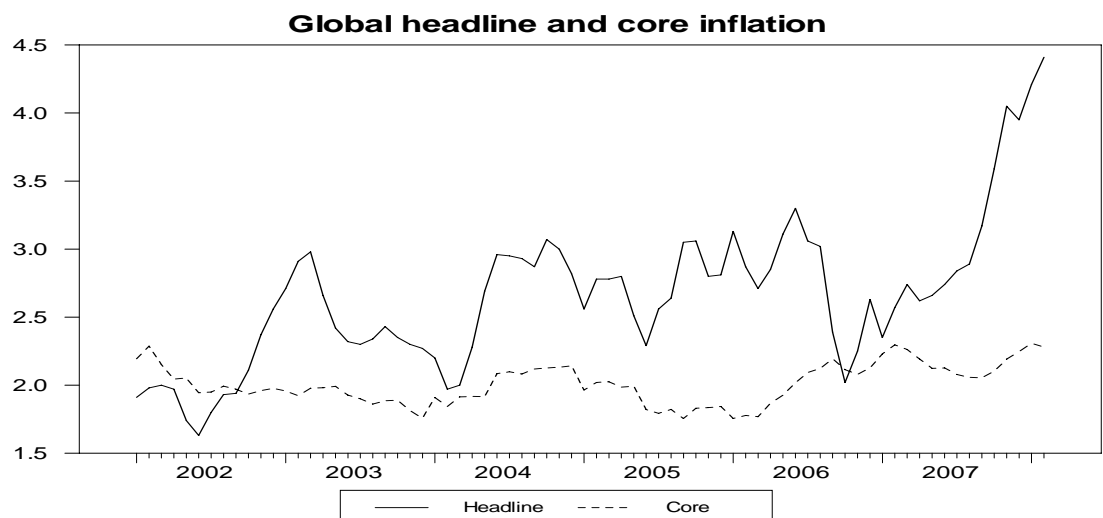
4. Emerging Markets: The challenge of rising global inflation

Dimitris Malliaropoulos, Maria Prandeka

- Emerging economies have shown only few signs of moderating economic activity, despite the financial market turmoil and the sharp slowing of the US economy.
- Global headline inflation surged as commodity prices have continued to rise across the board. Headline inflation in emerging economies has increased more sharply reflecting supply and demand disturbances as well as the larger share of food in consumer baskets.
- Rising inflation aggravates great risks for emerging and developed economies, potentially leading to wage-price spirals and higher inflationary expectations.
- Monetary policymakers in emerging economies face the challenges of strong domestic demand conditions along with rising inflation and financial market uncertainty.

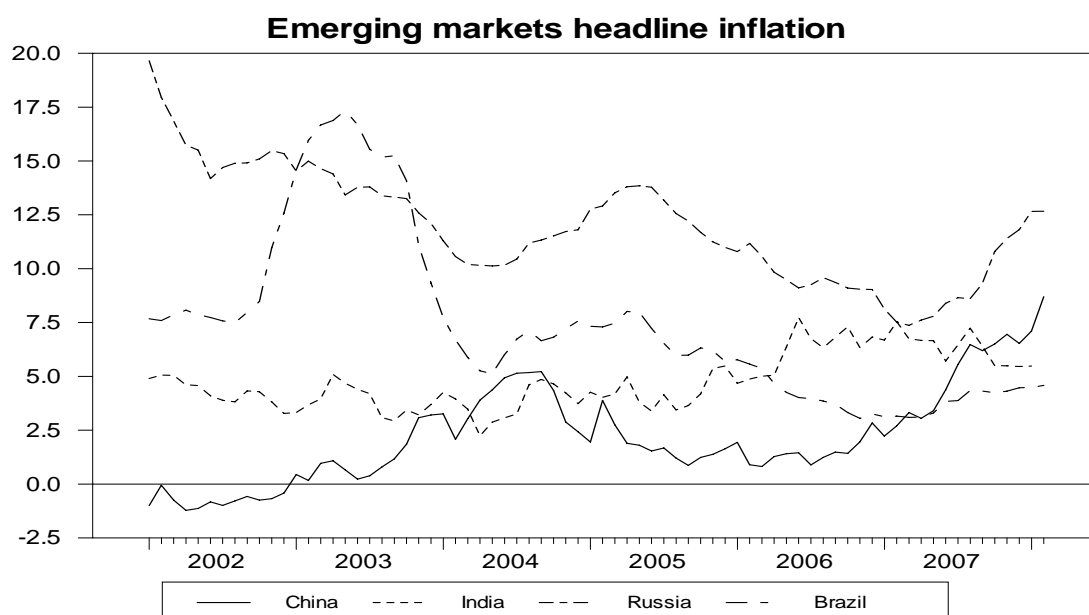
Despite the recent financial crisis, emerging economies, led by China and India, have continued to grow at a rapid pace, due to improved domestic demand conditions. During the first quarter of 2008, global growth – with the exception of the US, which likely entered a recession – remained quite firm at the same time when global headline inflation surged as commodity prices have continued to increase. It is worth noting that in some large emerging markets (such as Russia), inflation is currently running at double digit numbers, while in China headline inflation reached a multi-year high of 8.7% in February 2008 (Figure 4.1, Figure 4.2).

Figure 4.1



*Source: IMF

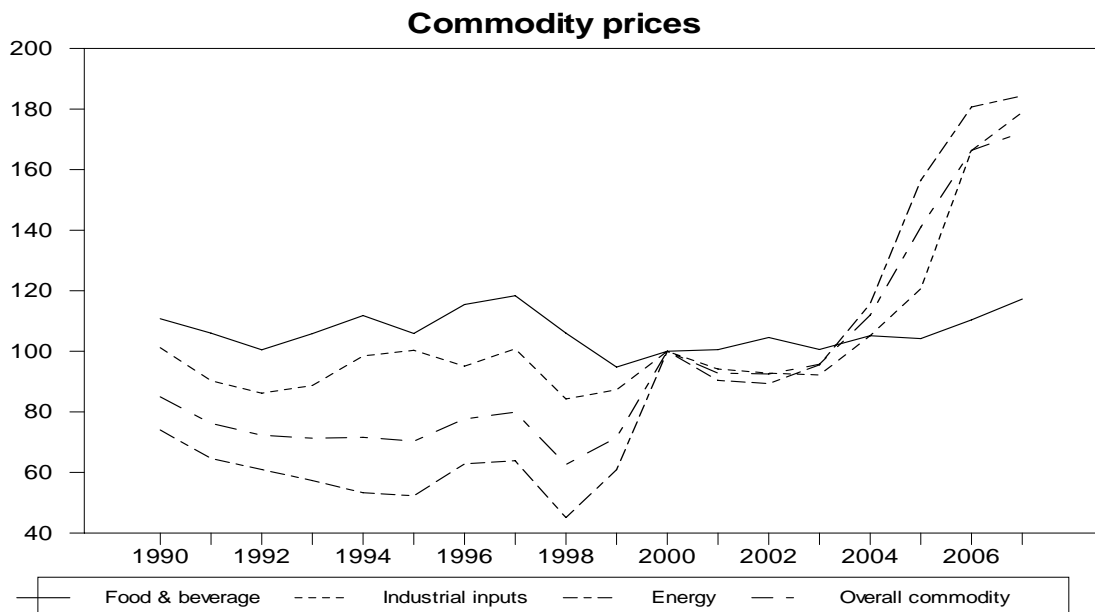
Figure 4.2



*Source: IMF

The recent increase in global headline inflation is attributed mainly to the surge in food prices which were driven both by supply and demand factors (Figure 4.3). On the demand side, increasing quantities of agricultural commodities were needed to satisfy energy production in various biofuels. Similarly, rising income per capita in EMs has led consumers in these countries to adopt more meat and dairy based diets which in turn fueled the increased demand for agricultural commodities such as feed. At the same time, higher energy prices have boosted the production and transportation costs of food products. On the supply side, adverse weather conditions and supply shortages induced declining inventories of several commodities, fuelling price increases.

Figure 4.3



*Source: IMF

The surge in food prices has influenced to a larger extent the inflation outlook of emerging economies than that of developed economies. This is reasonable, given that food accounts for a much bigger proportion of the consumer price baskets in the emerging world, where income per capita is lower. Consequently, EM policymakers are confronted with the challenge of supporting strong domestic conditions at the same time when global inflation has surged sharply, financial market uncertainty is on the upside and the US economy slows further below trend. Thus, central bankers in many emerging economies have been forced to further tighten monetary policy and in many cases to constrain monetary easing. Looking ahead, rising inflation and macroeconomic responses will have significant effects particularly in emerging economies and probably in global economy's prospects:

The recent surge in global commodity prices has turned emerging economies de facto into inflation exporters to the developed world. For example, as China's demand for metals surged (China accounts for more than 50% of the increase in world demand for metals such as aluminium, copper, nickel, and steel), production costs for goods that use metals as raw materials have increase, leading to higher export prices and eventually to higher consumer prices in export destination countries. Moreover, recent efforts by some major EM food exporters to dampen the domestic price pressures by imposing export controls, therefore boosting domestic supply, may

add to future inflation due to supply shortages in food importing countries. Indeed, elevated consumer prices in developed economies give rise to significant risks for second round effects. Higher headline consumer inflation in developed economies will trigger higher inflation expectations, eventually urging unions to claim higher wage increases on the back of the decline in their purchasing power. This is already happening in some emerging economies such as China, where wage increases have reached double-digit numbers. Higher wages will feed back into consumer prices, causing a wage-price spiral that may lead to a considerable volatility in the price level and therefore to higher core inflation. In fact, while global inflation picked up over the last year, global core inflation has risen too. Particularly, it has increased by about 0.5% since the beginning of 2006 to 2.2% y-o-y on average in 2007 (Figure 4.1).

Apart from second round effects, rising inflationary pressures will likely lead to real appreciation pressures for some EM currencies. The ongoing agricultural commodities price shift weighs significantly on the export bills of large commodity exporters, giving a great boost in their incomes which in turn benefit local currencies. Furthermore, as the US economy is heading into a recession, EM central bankers are forced to follow the lead of the Fed and cut interest rates as the outlook of the export sectors in these economies deteriorates. Nevertheless, with inflation on the rise, cutting interest rates posts a significant source of upside risk for the inflation outlook. Thus, EM policymakers have little choice but to raise interest rates or keep them on hold.

Rising interest rates in EMs will likely widen interest rate differentials relative to the US, encouraging more capital inflows in EM economies. In turn, this will create increasing upward pressure on EM currencies, putting the export sector of these economies under further pressure. Looking ahead, this suggests a need for higher interest rates in the US and other developed markets and thus downward pressures in economic activity. In addition to interest rate increases, currency appreciation would supply additional help to reign in high inflation because imported goods will be cheaper on a PPP basis. Hence, greater exchange rate flexibility would provide some support for monetary tightening. In countries with large current account surpluses, namely in China and Russia, currency appreciations coupled with monetary tightening seems to be the right policy to keep inflation under control and restrict the overheating pressure in the overall economy.

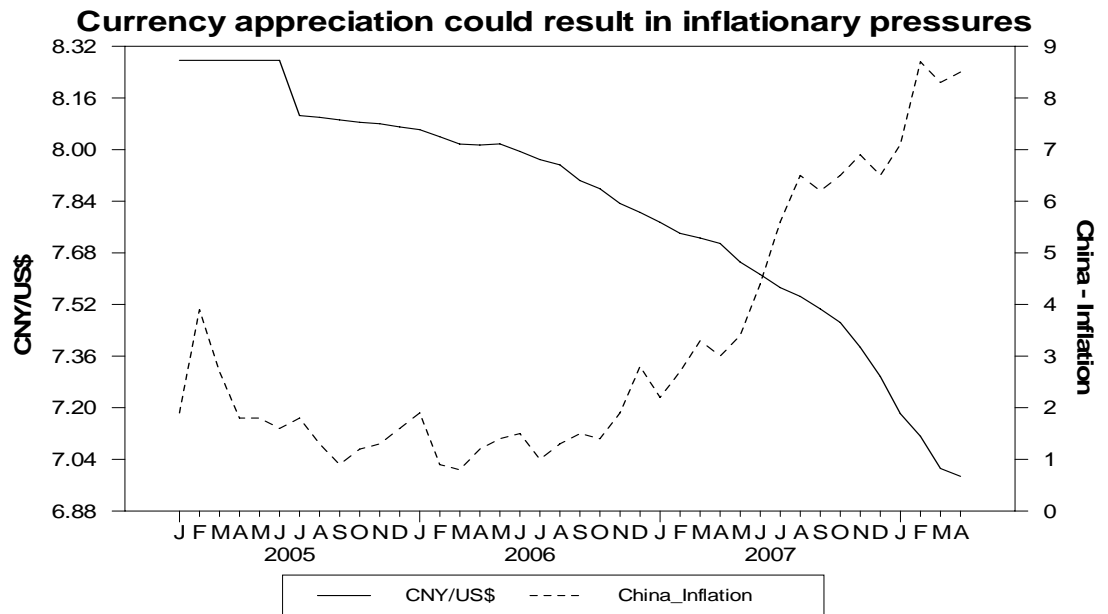
However, currency appreciation may turn out to be risky in that it could anchor expectations of further appreciation, which in turn will encourage speculative inflows, resulting in further inflation pressures unless central banks completely sterilize the impact of capital inflows on domestic money

supply, which they rarely do. In particular, in China the renminbi has appreciated since the July 2005 revaluation by about 18% against the dollar. Even though, consumer prices have increased sharply over the past few years climbing to 8.5% y-o-y in April 2008. Indeed, in February 2008 inflation recorded its highest level since 1996 rising to 8.7% y-o-y (Figure 4.4). Similarly, the Brazilian real has appreciated more than 12% in nominal terms since the beginning of 2007 and now it is one of the best-performing EM currencies over the past four years. Nevertheless, inflation soared to 4.7% y-o-y in April 2008 from about 3% a year ago at the same time when Brazil's current account has returned to negative territory.

A major concern of supporting monetary tightening through currency appreciation is that rising exchange rates can undermine the competitiveness of EM export companies, as the dollar prices for EM goods will rise, resulting in weaker export growth and thus in a deterioration of the EM trade balance. In the long term, the decline in export growth will contribute a significant catalyst of economic slowdown in these countries.

Recent trends in rising global headline inflation mainly due to food prices may aggravate great risks to the decoupling of EM economies from the US. The reason is that food accounts for a much bigger proportion of the consumer price baskets in the EM economies, leaving them more exposed to negative effects originating from higher food prices. The reaction of EM countries to elevated inflation leads to higher food prices in the developed world, where the combination of rising inflation and weak economic growth signals growing concerns for the global economy. Tightening monetary policy is the right response to the inflation threat, whereas monetary easing is needed to boost economic activity. Thus, great attention should be given in order to address inflationary pressures in the overheating emerging economies, so that the global economy will not eventually end up with lower global growth and higher inflation.

Figure 4.4



4.1 China Economic Outlook

- Weaker global demand along with tightening policy has eventually led China's economy to slow down from its record high growth rates in 2007.
- Weakening external demand conditions poses considerable risks to China exports during 2008. However, import growth is expected to gain further momentum in 2008 and combined with the probability that export growth will continue to slow, the trade surplus will likely shrink further.
- Inflationary pressures from elevated food prices call for more aggressive tightening in China.

Overview

China's economy will continue to be one of the world's fastest growing countries in 2008, albeit real GDP growth has eventually begun to slow down from its record high growth rates in 2007, due to the deterioration in net exports growth and tighter monetary policy. With headline consumer price inflation rising at its fastest pace in more than a decade, more monetary tightening is likely in the future. Meanwhile, given that US and Euro zone account for about 40% of China's exports, the slowdown in consumer spending in these economies is likely to reduce export growth to around 20% in 2008. Under this scenario, further tightening measures are likely to weigh on economic growth, thus they should be implemented only gradually. However, the decline in net external demand will not be translated into a dampening of overall economic activity, as China's economic growth is relying more on domestic than external demand.

Table 4.1

China Main Economic Indicators and Forecasts

	2006	2007	2008e	2009e
Real GDP (y-o-y %)	11.6	11.9	10.0	9.5
Industrial Production (end of period)	16.6	18.0	15.7	15.0
Inflation (avg, y-o-y %)	1.5	4.8	6.6	5.0
Unemployment rate (avg, %)	4.1	4.2	4.2	4.2
External Balance				
Exports of Goods & Services (y-o-y %)	27.2	25.7	15.0	17.0
Imports of Goods & Services (y-o-y %)	19.7	20.9	23.2	24.6
Trade Balance (% GDP)	6.8	8.1	7.0	6.0
Current Account (% GDP)	9.3	11.7	8.6	7.4
Interest Rates				
Lending Interest Rate (end of period; %)	6.1	7.5	7.7	7.7
Exchange Rates				
Exchange Rate (avg; Per US\$)	7.8	7.3	6.7	6.3

Growth Performance

Although real GDP growth has slowed down compared to record growth rates in 2007, the latest data for economic activity for the first quarter of 2008 suggest that economic growth is still impressive, despite the recent financial market turmoil and the sharp slowing of the US economy, which likely entered a recession. GDP rose by 10.6% y-o-y in Q1 2008, after a very strong 11.2% y-o-y growth rate in the last quarter of 2007 (Figure 4.5). Moreover, the revision of 2007 real GDP growth suggests that real growth averaged 11.9% y-o-y in 2007, up 60bp from the original estimate of 11.4%, making it the fifth subsequent year of double digit growth. It appears that net trade accounted for most of the slowing of GDP growth since the trade surplus has decreased by about 10.6% y-o-y in dollar terms in Q1 08. The diminished contribution of the net trade balance actually was offset by robust levels of domestic demand.

Figure 4.5

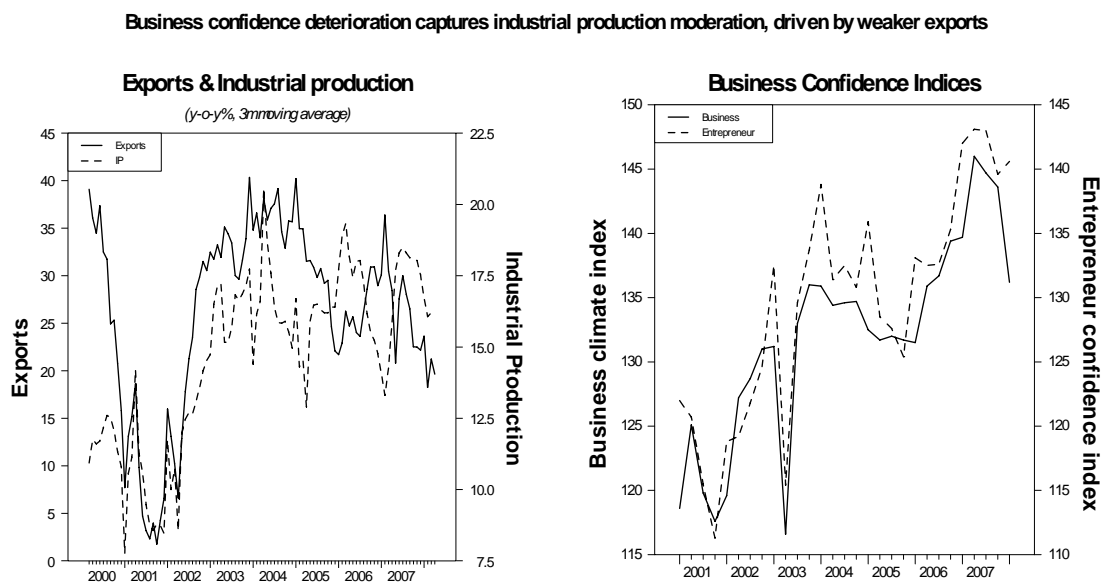


Fixed investment maintained its momentum in Q1 08 rising by 24.6% y-o-y, despite the government's administrative constraints imposed to moderate investment and rebalance the economy towards private consumption. Apart from fixed investment, consumer indicators suggest that private consumption has remained on an upward trend during the first four months of 2008, sending retail sales of consumer goods to a 10-year high. Indeed, retail sales increased by 22% y-o-y in April 2008 on the back of higher inflation. However, the NBS index of consumer confidence

eased to 94.8 in Q1 08, from 96.5 in Q4 07, pointing to a possible moderation in consumption growth as food inflation has increased sharply, depressing households' finances. Rising food prices combined with weaker export growth may weigh on wage growth primarily in the manufacturing sector, suggesting that consumer spending in urban areas is likely to slow this year. Nevertheless, rural disposable income per capita, which increased impressively, has actually been boosted by increasing meat and grains prices and is expected to continue to benefit from higher grain prices, playing a significant role in the rebalancing of the economic growth pattern to consumption.

Signs of upcoming downward pressures on industrial production growth due to softer external demand and tightening monetary policy in order to reign in inflation have already started to show, with business confidence indexes declining from their recent multi year peaks in the second quarter of 2007, in line with industrial production numbers. Indeed, industrial production growth moderated from an average growth of 17.5% in 2007 to 15.7% y-o-y in April 2008, providing further evidence of a softening in activity (Figure 4.6).

Figure 4.6



External Sector

The weakening of external demand conditions poses considerable risks to China exports during 2008. Total export growth decelerated in Q1 08 to 21.4% y-o-y growth from 22.2% y-o-y growth in Q4 07. Given that US and Euro zone accounts for about 40% of China's exports, the slowdown in consumer spending in these economies is likely to reduce export growth to around 15% in 2008 from 25.7% in 2007 (Figure 4.7). The slowdown in exports is expected to be more apparent in volume than in value terms due to valuation effects, because the increase in the dollar value of Chinese exports has been largely underpinned by the sharp appreciation of the euro and Asian currencies against the dollar. Moreover, the weakening in export growth will undermine the demand for imported components that Chinese manufacturers assemble and, in turn, re-export to the rest of the world. However, imports intended for domestic use seem to gain momentum over the last few years, due to strong domestic demand. Indeed, imports grew by 28.6% y-o-y in Q1 08 compared to 25.4% y-o-y in Q4 07, supported mainly by high commodity prices as well as robust consumer spending. On balance, import growth is expected to gain further momentum in 2008 and combined with the probability that export growth will continue to slow, the trade surplus will probably shrink further.

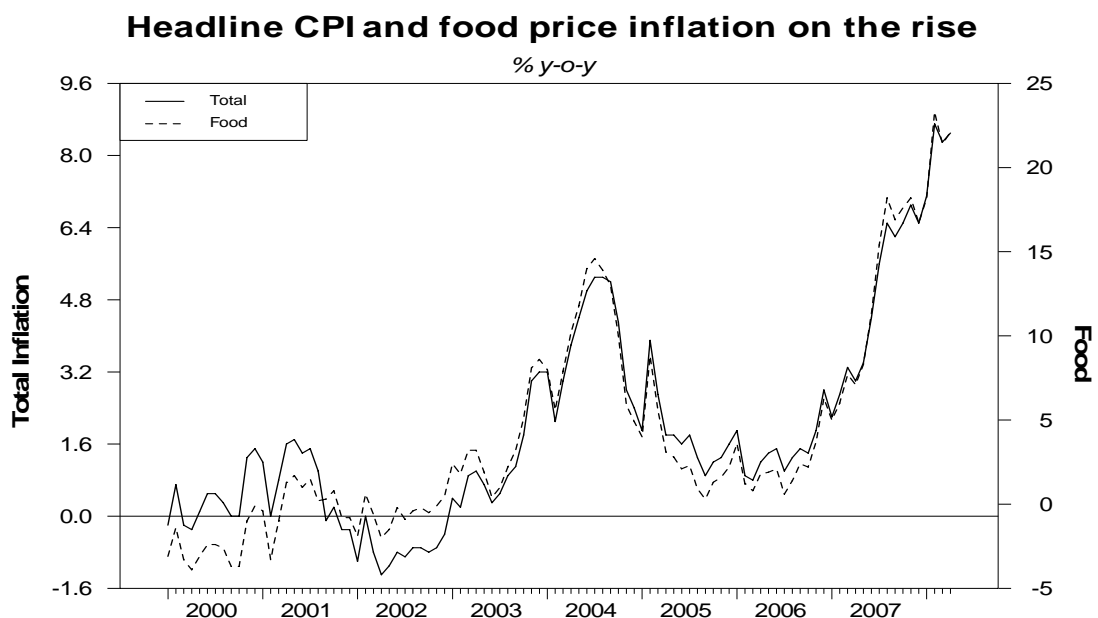
Figure 4.7



Inflation Dynamics

After hitting a 12-year high of 8.7% y-o-y in February 2008, headline CPI inflation narrowed down only slightly in April to 8.5% y-o-y, suggesting that inflation remains the major drag on the economy and the government's main policy concern. The upturn in inflation has largely been driven by elevated food prices (Figure 4.8). Sharp increases in food prices are strongly related to domestic supply shortages and surging global energy and food prices. Meanwhile, the latest figures for non-food inflation and producer prices provide evidence that high food prices may start to spill over through wage cost pressures into more generalized inflation. Indeed, non-food inflation surged to 1.8% in April 2008, up for about 80 basis points from its average growth rate in 2007. Additionally, producer price inflation has surged to a record high in April, accelerating to 8.1% y-o-y in April 2007 from 5.4% y-o-y in the end of 2007. All the above indicate that inflationary pressures may prove persistent and stress the need for a faster appreciation of the CNY against the dollar.

Figure 4.8

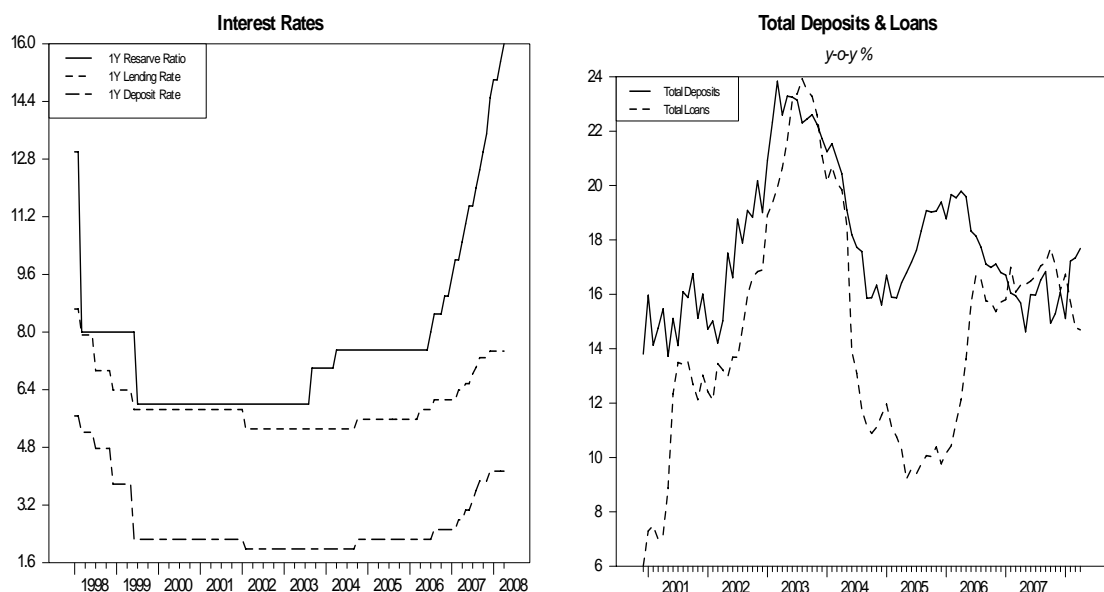


Monetary Policy

With inflation on the rise we expect the PBoC to maintain its current tightening mode. Nevertheless, M2 money supply continues to expand at impressive rates emphasizing the need to control the overheating pressure in the overall economy. Indeed, the government announced that its monetary policy stance has been changed from 'prudent' to 'tight'. Given that interest rate differentials between China and the US are widening, Chinese policymakers are concerned that rising interest rates will lead to higher capital inflows into China, thus adding further to excess liquidity and pressures for a stronger renminbi. Hence, benchmark interest rates have remained on hold since December 2007 (Figure 4.9). It seems likely that monetary policy will rely more on credit controls and liquidity management through open market operations and further increases in the level of reserves that banks must hold at the PBoC. In fact, the PBoC has raised banks' cash required reserve ratio by 100bp so far in 2008. Looking forward, we expect that the PBoC will continue increasing benchmark interest rates, but the process will remain slow, given the impact of rising interest rates on economic growth at the same time that export growth is showing signs of slowing. Moreover, the PBoC may allow a faster appreciation of the CNY against the dollar in 2008 to contain the effect of rising food prices on domestic inflation.

Figure 4.9

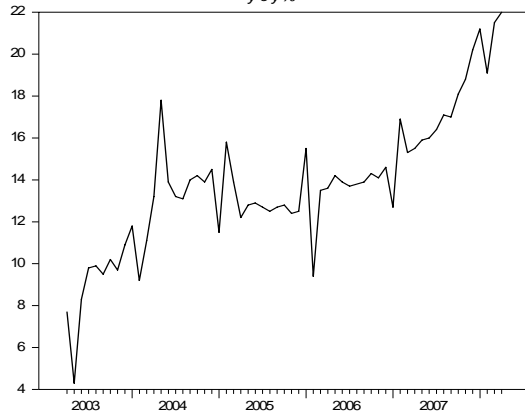
Tighter monetary policy to take some of the steam out of the overheated economy



CHINA CHARTS

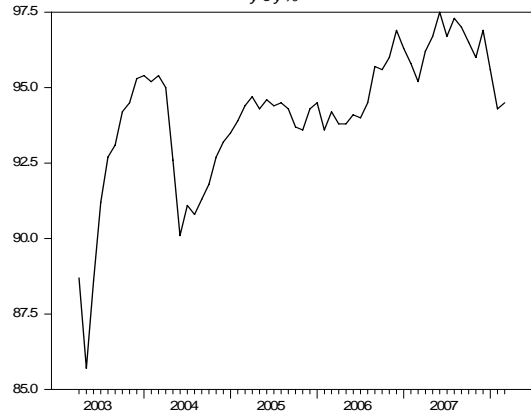
Retail sales

y-o-y %



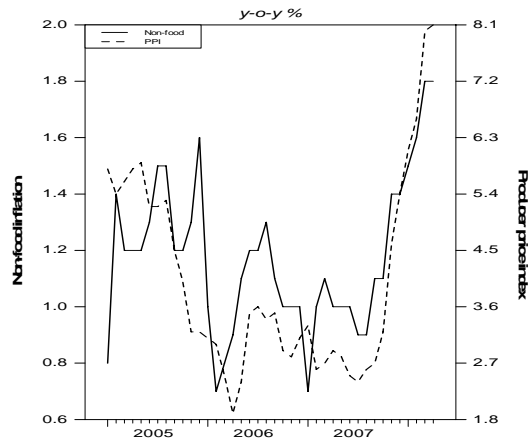
Consumer confidence

y-o-y %



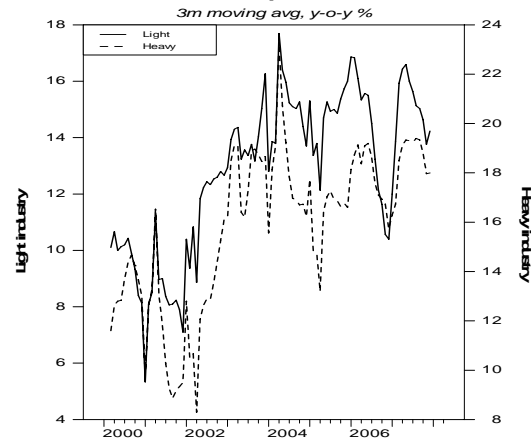
Inflation

y-o-y %

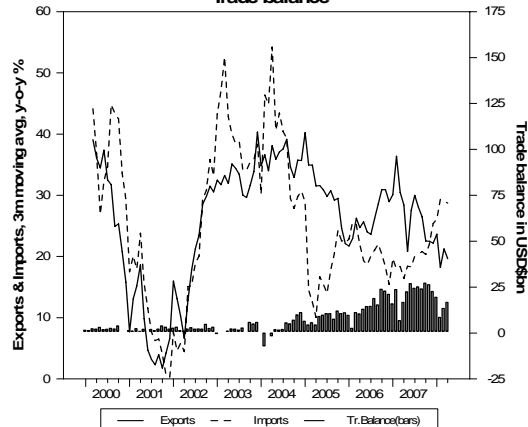


Industrial production

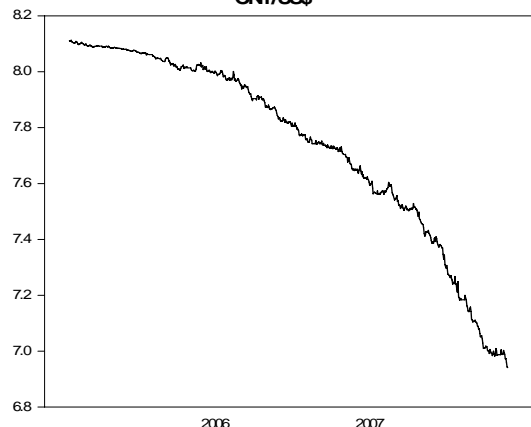
3m moving avg, y-o-y %



Trade balance



CNY/US\$



4.2 India Economic Outlook

- India's economy has started to cool down, after five years of impressive economic performance, due to the slowdown of developed economies, tightening monetary policy and elevated global commodity and energy prices. Real GDP growth is expected to moderate towards potential in 2008-09.
- Given the continued upward trend in import growth that surpassed export growth, the net effect was a further widening of the trade deficit.
- Inflation is rising at its fastest pace in the last three years, due to high global commodity prices, putting the RBI under increased pressure to raise interest rates in 2008.

Overview

The ongoing slowdown of developed economies along with domestic developments such as the intensified monetary tightening and the sharp rupee appreciation will dampen somewhat the expansion in economic activity in 2008. Indeed, after five years of impressive performance, the latest economic indicators suggest that GDP growth in India has already started to cool down. In our view, the ongoing slowdown is a positive development that could take some steam out of the overheated economy and put it on a more sustainable pace of economic expansion. The acceleration in inflation will be the main challenge for India's economy in 2008, with monetary policy shifting to a more tightening bias.

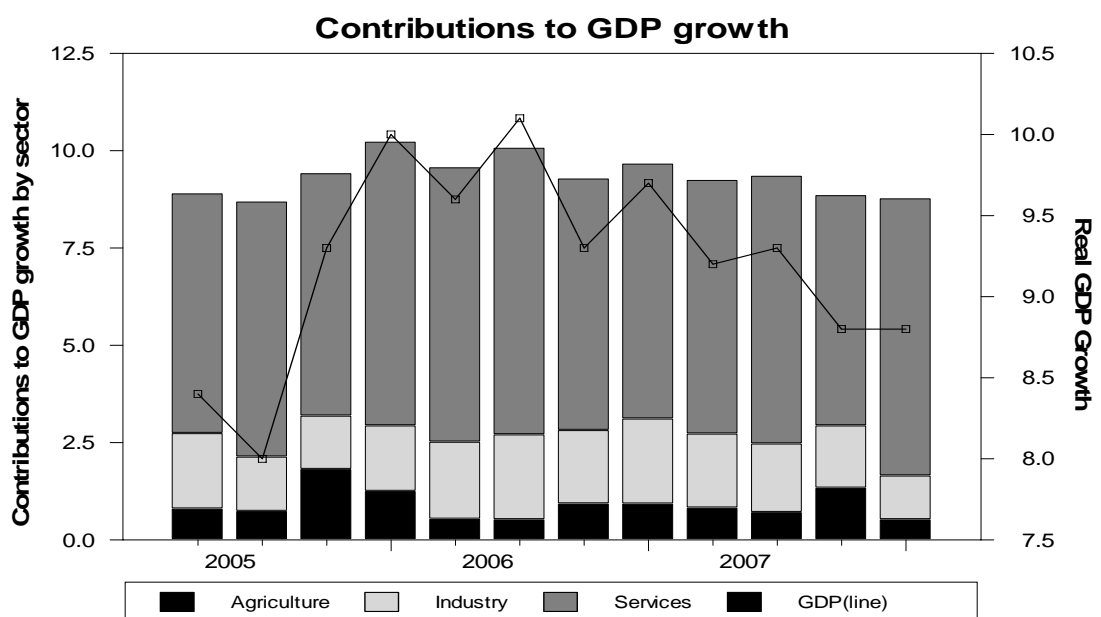
Table 4.2
India Main Economic Indicators and Forecasts

	2006	2007	2008e	2009e
Real GDP (y-o-y %)	9.7	8.7	7.8	8.0
Industrial Production (avg, % y-o-y)	10.6	10.0	7.5	7.9
Inflation (wholesale, avg, y-o-y %)	5.5	4.5	6.0	5.5
External Balance				
Exports of Goods & Services (y-o-y %)	20.0	23.0	18.0	15.0
Imports of Goods & Services (y-o-y %)	19.6	23.0	26.0	23.0
Trade Balance (% GDP)	-6.0	-6.2	-7.1	-7.6
Current Account (% GDP)	-1.1	-1.8	-3.0	-2.6
Interest Rates				
Central Bank Rate(%)	6.0	6.0	6.25	6.25
Exchange Rates				
Exchange Rate (avg, Per US\$)	44.27	39.41	40	39.53

Growth Performance

India's economy has been growing by 8.5% on average over the past four years, on the back of rising productivity and investment, placing it amongst the fastest-developing economies. After these years of impressive performance, the latest economic indicators suggest that GDP growth in India has started to cool down, reflecting the slowdown of developed economies, the tightening in monetary policies and the elevated global commodity and energy prices. Indeed, real GDP expanded by 8.8% y-o-y in Q1 08 -the lowest pace of growth since 2005- matching the revised data on GDP of the previous quarter. The deceleration, is evident in all sectors with the contribution of the industry and agricultural sectors to GDP growth declining significantly (Figure 4.10). Apart from weaker export growth, a major factor restraining economic growth is the dampening of consumer spending, most likely due to the increase of wholesale price inflation to multiyear highs.

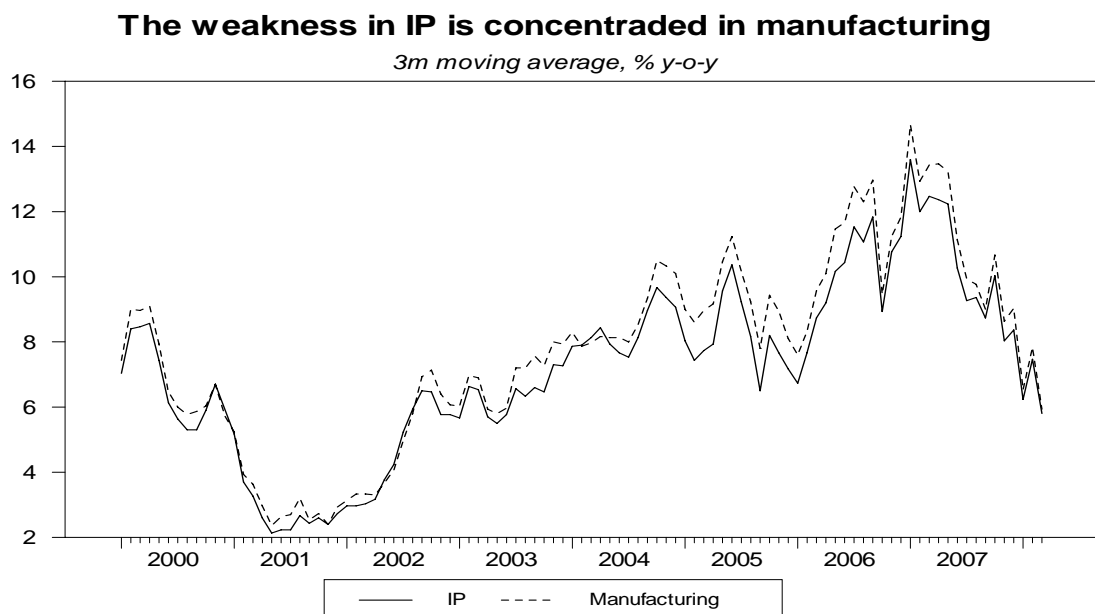
Figure 4.10



The ongoing moderation of economic activity is largely revealed by the sharp reduction in consumer growth owing to rising cost of borrowing and inflation pressures, as reflected in consumer durables production, which rose on average only by 0.2% y-o-y during the first quarter of 2008. Additionally, fixed asset investment -the fastest growing component of domestic demand- slowed to 14.1% y-o-y in Q1 2008 compared to 14.7% y-o-y in Q4 2007. Weak domestic demand, as well as slowing

demand from abroad, is evident in industrial production, which decelerated to a multi-year low of 3% y-o-y in March (Figure 4.11).

Figure 4.11

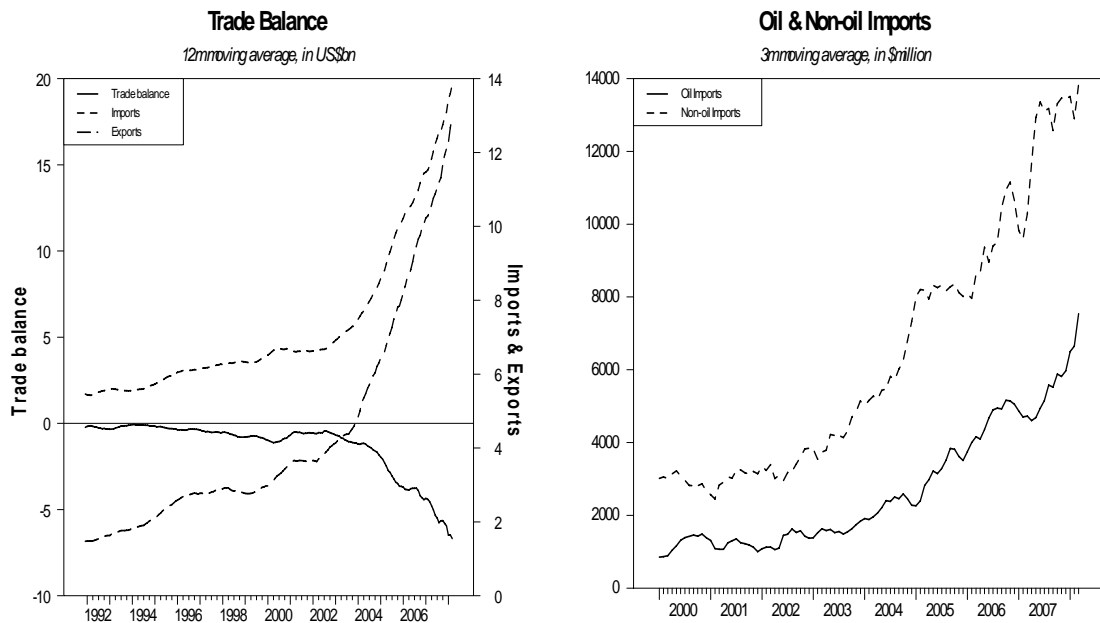


External Sector

The appreciation of the local currency against the US dollar has hurt Indian export companies. Merchandise export growth has remained robust at over 20% y-o-y in US dollar terms during the first quarter of 2008, reflecting the strong domestic currency rather than the actual increase in exports. However, when exports performance is expressed in rupee terms, this has in fact narrowed down. Meanwhile, the sharp exchange rate appreciation alongside the so far sustained growth in domestic demand contributed positively to the rapid expansion in imports, weighing significantly on the imports bill, which reached an accumulated US\$64.9bn in the first quarter of 2008, increasing by 37% y-o-y in Q1 08 over the same period of 2007. Rising oil prices were the main cause of buoyant imports, (Figure 4.12, right). Given that the continued upward trend in import growth surpassed that of exports, the net effect was a near 65% widening of the trade deficit in Q1 08 from a year earlier (Figure 4.12, left). Looking forward, we expect that weaker external demand conditions, tightening monetary policy and the lagged effect of the rupee appreciation against the dollar will exert further pressure on export growth, resulting in a steady increase of the trade deficit.

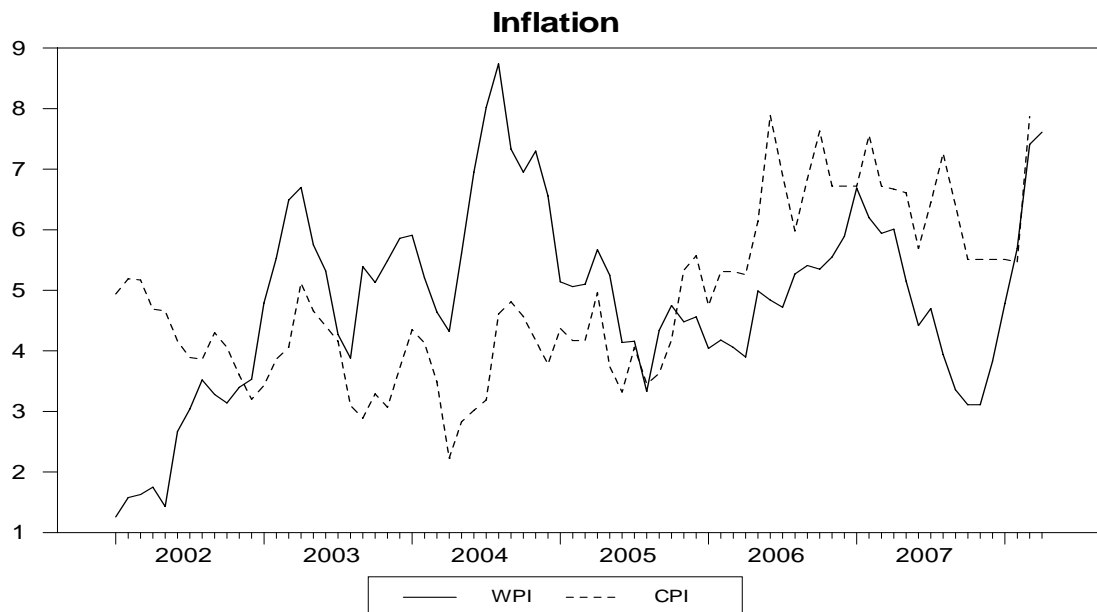
Figure 4.12

External Trade



Inflation Dynamics

After slowing steadily during 2007, wholesale price inflation (WPI), the current benchmark for inflation in India, recorded a multi-year high of 7.6% y-o-y in April 2008, primarily due to food and energy prices. Consumer price inflation (CPI) for industrial workers rose to 7.9% y-o-y in March, up from an average of 6.4% y-o-y in 2007 (Figure 4.13). Measures such as one-off declines in import duties, export bans and other price controls were not successful so far in bringing down inflation. Core inflation seems to contribute the most to the rise in headline inflation. The latter, in combination with high international energy and food prices, rising wages, ample domestic liquidity and increasing government spending, pose significant sources of risk for India's inflation outlook. As a result, it seems unlikely that inflation will be pushed back within the RBI's new target of 5.5% for the rest of the year.

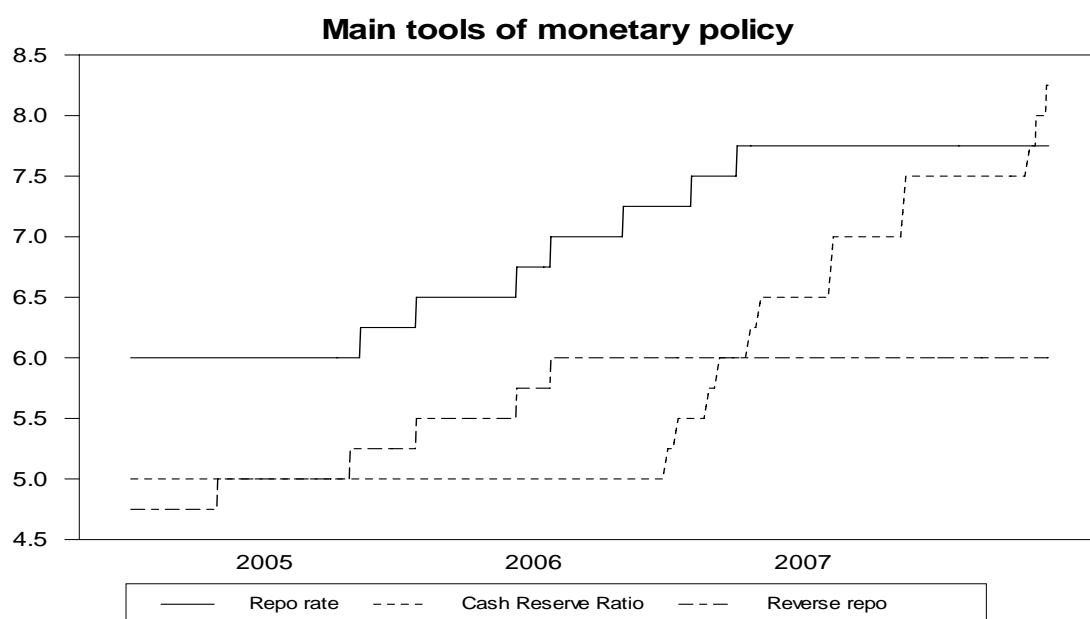
Figure 4.13

Monetary Policy

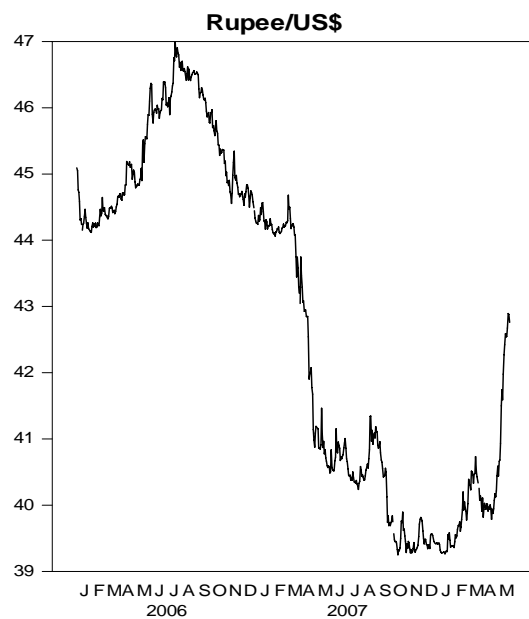
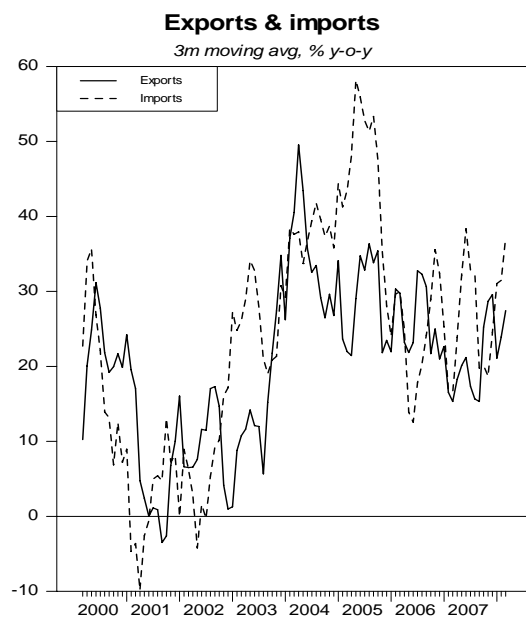
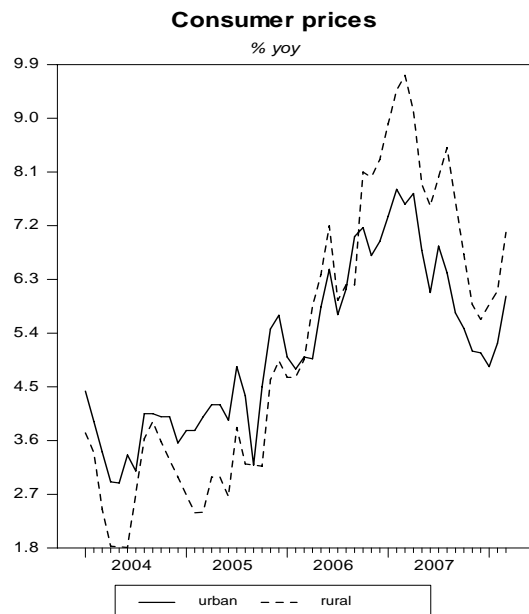
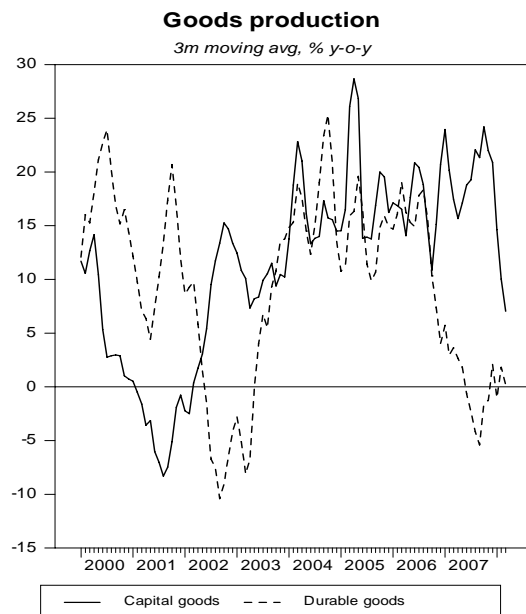
With inflation concerns on the upturn, the government of India brought its policy in line with that of the Reserve Bank of India, announcing that the biggest challenge for the government is the management of inflation even if its cost is a lower rate of economic growth. From the central bank's perspective, the RBI raised its target for inflation to 5.5% from 5%. Indeed, although the Central Bank kept the benchmark repo and reverse repo rates stable at 7.75% and 6% respectively, it did raise the Cash Reserve Requirements (CRR) by 75 bps to 8.25% of eligible deposits since the beginning of the year, in an effort to anchor inflation expectations by removing excess liquidity stemming from capital inflows and elevated foreign exchange reserves (Figure 4.14). The latter increased further to US\$313bn in April 2007 from US\$276bn in the end of 2006, as the Central Bank bought foreign currency in order to prevent excessive rupee appreciation. Indeed, the RBI has announced on May 1, 2008 that the Central Bank will not be using the exchange rate to reign in inflation. As a result, the rupee has depreciated by about 5.7% since then. Given the moderation in economic growth and the elevated inflationary pressures, capital inflows will likely moderate in the near future, putting pressure on the rupee during this year. However, as long as inflationary pressures moderate and economic growth recovers, India will attract again stronger foreign direct

investment, promoting the appreciation of the INR. With core inflation on the rise, we expect further monetary tightening in H2.

Figure 4.14



INDIA CHARTS



4.3 Russian Economic Outlook

- The economic outlook for Russia remains positive, supported mainly by strong private consumption and fixed investment.
- High energy prices boost export revenues, offsetting the negative contribution of imports to the trade balance.
- Inflationary pressures will remain one of CBR's major concerns, owing to the favourable domestic economic environment, high oil prices, large capital inflows and fiscal easing.
- Increasing pressures stemming from rising inflation will force the CBR to raise interest rates and to allow a modest appreciation of the ruble against the dollar-euro basket.

Overview

Russia's economy expanded by 8.1% y-o-y in 2007, the fastest rate since 2000, thanks to strong domestic demand, in particular private investment. The pace of growth is expected to moderate slightly in 2008-09 but it will still remain robust. In a context of a favourable domestic economic environment, high oil prices, large capital inflows and fiscal easing, inflation remains the biggest drag on Russia's economy. Given the ongoing global liquidity squeeze and rising global and domestic inflation, Russia's policymakers should act appropriately by providing liquidity support to banks at the same time they focus monetary policy on moderating inflation.

Table 4.3
Russia Main Economic Indicators and Forecasts

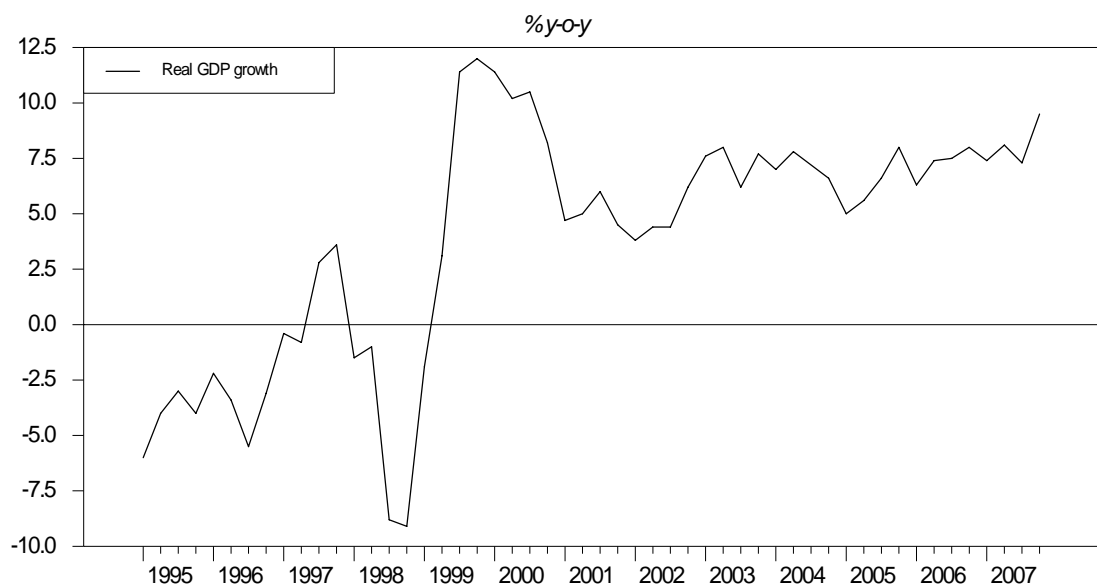
	2006	2007	2008e	2009e
Real GDP (y-o-y %)	7.4	8.1	7.0	6.5
Industrial Production (avg, y-o-y %)	3.9	6.3	5.3	5.0
Inflation (avg, y-o-y %)	9.7	9.0	13.5	10.5
Unemployment rate (avg, %)	7.3	6.2	5.9	5.8
External Balance				
Exports of Goods & Services (y-o-y %)	24.8	17.0	21.5	20.0
Imports of Goods & Services (y-o-y %)	31.4	35.7	30.5	28.0
Trade Balance (% GDP)	14.1	10.2	8.9	5.9
Current Account (% GDP)	9.5	6.0	5.8	3.1
Interest Rates				
Short Term Interest Rate (%)	11.5	10.13	11.75	12.0
Exchange Rates				
Exchange Rate (avg, Per US\$)	26.33	24.63	23.47	25.05

Growth Performance

Real GDP grew by 8.3% in Q1 2008, following a 9.5% rise in the last quarter of 2007 (Figure 4.15). Buoyant investment and household consumption promoted demand for services which once again accounted for most of the increase in real economic growth. Rising public infrastructure projects supported investment spending which grew by 20.1% y-o-y on average for the first three months of the year, while retail sales increased by 16.1% y-o-y on average over the same period, as real wage growth remained relatively high. The new Russian government (elected on March 2008) will likely continue the economic policy that has produced strong economic growth in the past, paying specific attention on boosting investment and extending government infrastructural projects.

Figure 4.15

Russia's economy continues to expand significantly despite the global credit crisis



The domestic industry, which accelerated in Q1 08 to a y-o-y growth of 6.2%, seems to benefit mainly from the manufacturing sector which expanded by 8.5% y-o-y, supported to a large extent by the increase in infrastructure orders for machines and equipment. High rates of output growth were also reported in construction which was a major beneficiary sector of the housing boom, the rise in incomes and government spending for infrastructural projects. On the contrary, mining and extraction still lagged growth in the other sectors. Weak oil output exerted a significant drag on overall industrial output. Extraction of oil has contracted by 0.1% in the first quarter of the year,

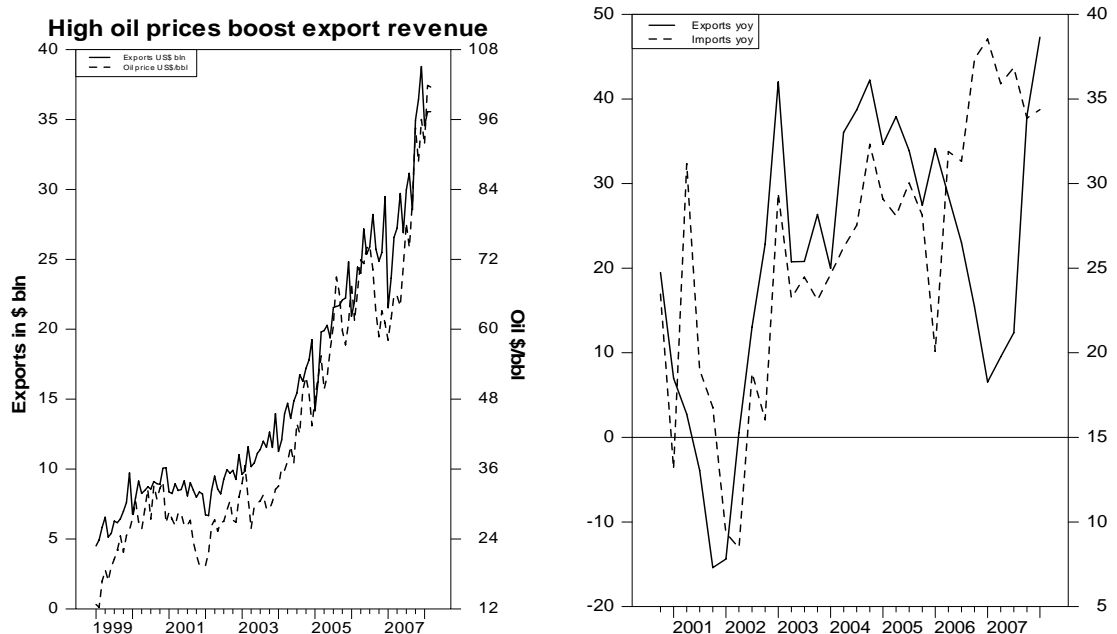
declining by 0.7% in March. Notwithstanding, should the new government continue with the existing policies of promoting the modernising of the Russian economy, new orders will remain solid and industrial production growth will remain strong, albeit moderating somewhat.

External Sector

Given the current environment of robust domestic demand and currency appreciation against the dollar-euro basket, demand for imported goods has remained high and import values in US dollar terms increased sharply by 34% in Q1 08. However, the negative contribution of imports to the trade balance was largely offset by the positive contribution of higher energy prices which boosted export revenue inflows (Figure 4.16). As a result, according to estimates of the Russian Central Bank, the current account surplus climbed to US\$38 billion in Q1 08. These developments counterbalanced the figures posted in the end of 2007 when the current account surplus narrowed by about 17% compared to 2006, due to weaker export volumes and favourable growth performance that triggered higher in imports. We expect the current account surplus as a fraction of GDP to remain close to its 2007 levels (6.1% of GDP in 2007) in 2008, due to high energy prices. Thereafter, the current account surplus seems likely to decline significant as energy prices moderate and robust domestic demand boosts import growth. This will add to the existing pressures for monetary tightening, stemming from rising inflation.

Figure 4.16

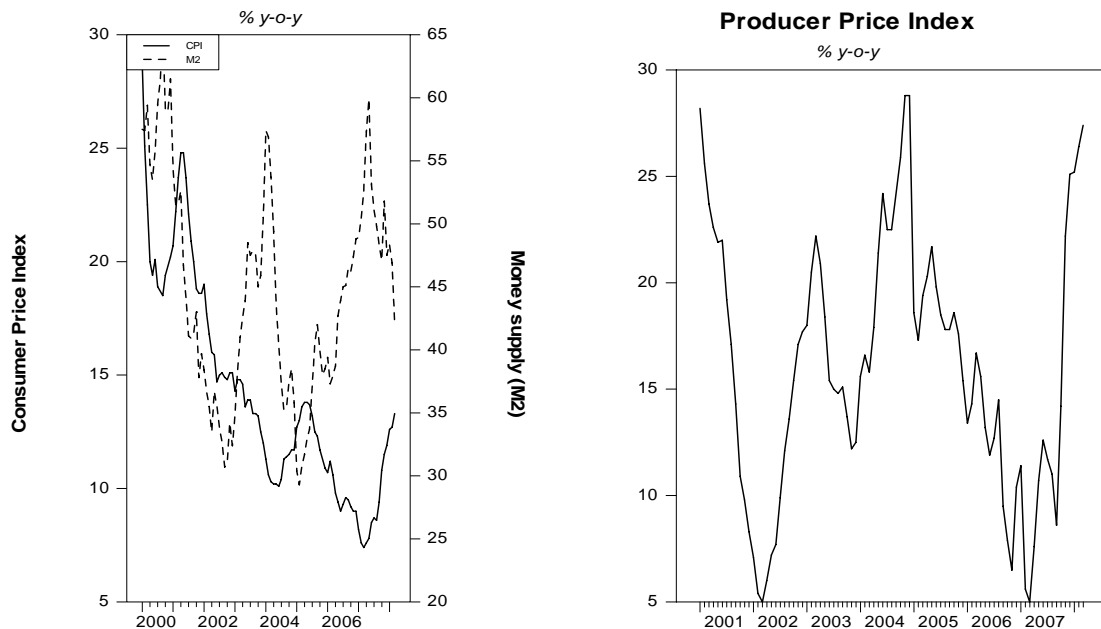
Exports & Imports



Inflation Dynamics

In a global economic environment with headline inflation dynamics remaining significantly on the upside, Russia's inflation outlook is worrying. Consumer price inflation has increased steadily since March 2007, when it posted a record low of 7.4% y-o-y, and reached a 2-year high of 13.3% in March 2008 (Figure 4.17). High domestic energy costs boosted producer prices, which feed into consumer prices. As a result, core inflation surged to 1.1% on a m-o-m basis compared to an average of 0.9% m-o-m in 2007. Additionally, food inflation jumped to 2% m-o-m compared to an average of 1.2% m-o-m in 2007. The latest money supply data suggest that M2 continues to expand at impressive rates (46% y-o-y on average for the first three months of the year), fuelling domestic inflation. Inflation is likely to continue its course of double digit growth in 2008, comprising the major threat for the Russian economy and the biggest priority for Russian policymakers.

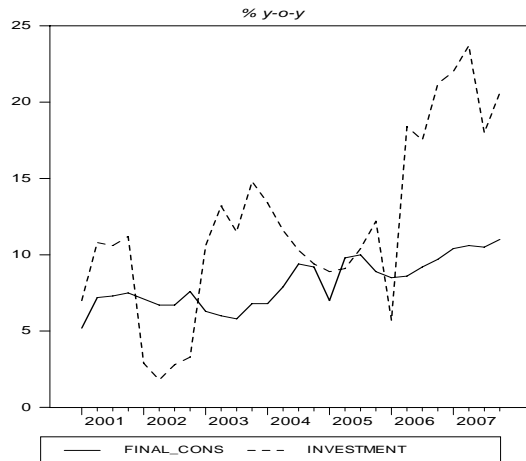
Figure 4.17

Raising concerns over inflationary pressures**Monetary Policy**

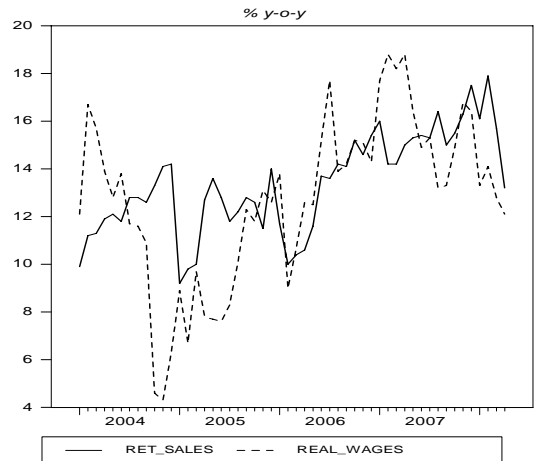
In the current high inflation environment, the authorities have to face opposing challenges. On the one hand, the Central Bank of Russia (CBR) should provide sufficient liquidity into the Russian banking system due to tighter global liquidity conditions. On the other hand, inflation is getting out of control, prompting the CBR to tighten monetary policy by either raising interest rates or allowing the ruble to appreciate against its dollar-euro basket. However, the prevention of excessive currency appreciation has been one of the key targets of the Central Bank of Russia in order to protect the competitiveness of export companies. But this policy attracted speculative inflows based upon expectations of further appreciation. The latter, along with concerns over inflationary pressures, led the CBR to allow a widening of the daily trading band for the ruble against the dollar-euro. Moreover, the CBR raised interest rates by 50 basis points to 10.5% since the beginning of the year. Looking forward, given that monetary policy should focus more on moderating inflation, we expect the CBR to raise gradually its refinancing rate and to allow a modest appreciation of the ruble against the dollar-euro basket.

RUSSIA CHARTS

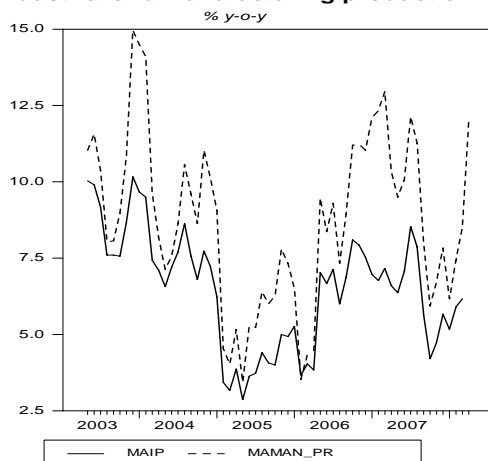
Consumption and investment



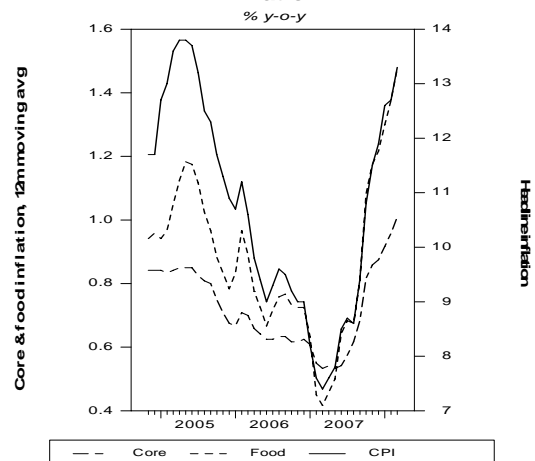
Retail sales and real wages



Industrial and manufacturing production



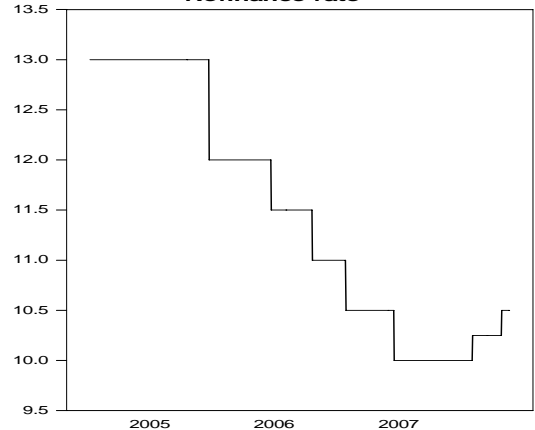
Inflation



Ruble/US\$



Refinance rate



4.4 Brazil Economic Outlook

- Brazil's economy continues to grow, supported by strong domestic demand and high commodity prices.
- However, strong import growth combined with slowing exports has led to a substantial narrowing of the trade surplus.
- Inflation risks are on the upside due to fast growing domestic demand and elevated food prices.

Overview

Brazil maintains its growth momentum, with domestic demand being the major contributor of economic expansion. However, the trade balance surplus has narrowed significantly and industrial production is slowing due to weaker global demand and a strong currency. A global slowdown may dampen economic growth, looking forward, especially if it leads to a reversal in commodity prices.

Table 4.4
Brazil Main Economic Indicators and Forecasts

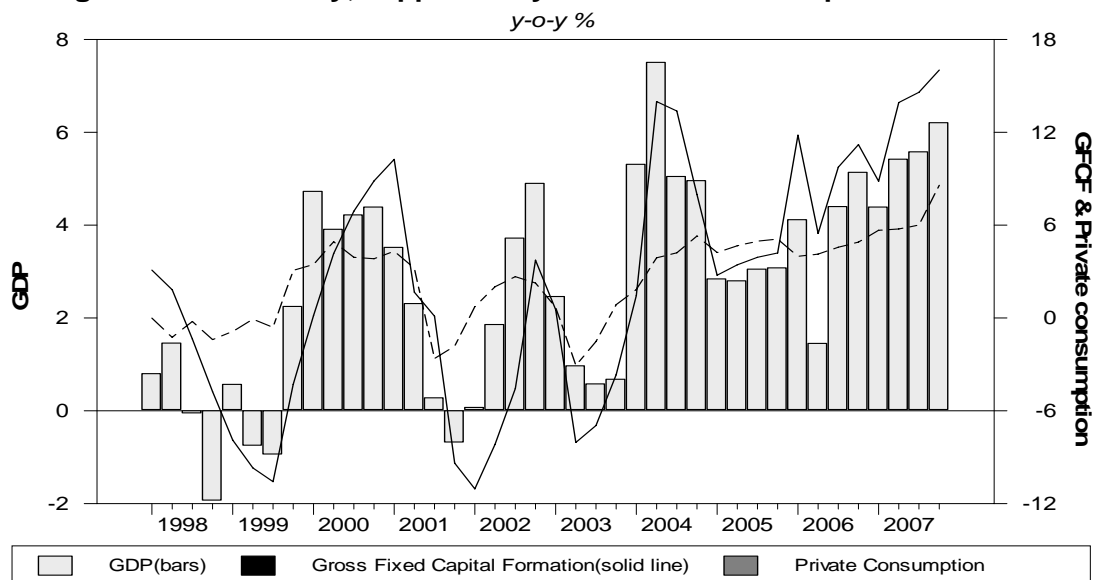
	2006	2007	2008e	2009e
Real GDP (y-o-y %)	3.8	5.4	4.6	4.3
Industrial Production (avg, y-o-y %)	2.9	5.9	6.3	6.0
Inflation (y-o-y %)	4.2	3.6	4.8	4.3
Unemployment rate (avg, %)	10.0	9.3	8.7	8.5
External Balance				
Exports of Goods & Services (y-o-y %)	16.5	16.6	15.5	17.2
Imports of Goods & Services (y-o-y %)	24.1	32.0	43.0	34.1
Trade Balance (% GDP)	4.4	3.1	1.5	0.8
Current Account (% GDP)	1.3	0.1	-0.6	-0.6
Interest Rates				
Short Term Interest Rate (%)	15.3	12.0	10.2	9.5
Exchange Rates				
Exchange Rate (avg, Per US\$)	2.14	1.78	1.75	1.84

Growth Performance

Brazil's economy continues to strengthen, supported by successful macroeconomic policies that have brought inflation within the official range target, enhancing the resilience of the economy to a global slowdown. Real GDP growth accelerated to 5.4% in 2007 from 3.8% in 2006, spurred by lower interest rates, with domestic demand being the main driver of growth. Economic activity gathered remarkable momentum in the final quarter of 2007, when real fixed investment bounced from 14.6% y-o-y in Q3 07 to 16.0% y-o-y in Q4 07. Improving labor market conditions, rising real labor income and strong consumer credit growth has boosted private consumption growth from 6.0% in Q3 07 to 8.6% in Q4 07 (Figure 4.18). The most recent monthly economic indicators suggest that the economy maintains its momentum and shows no significant signs of moderating. Indeed, the Brazilian economy is well positioned to expand by 4.5-5% in 2008. A slowdown in global growth and a correction in commodity prices are the main risk factors.

Figure 4.18

Strong economic activity, supported by household consumption & investments



According to the latest data, domestic demand appeared to mark a further increase over the first quarter of 2008. The unemployment rate has been brought steadily down to 8.5% in April 2008 from its peak of 10.1% in May 2007, due to improved labor market conditions. Nominal and real wages have been increasing by an average y-o-y growth rate of 7.9% and 2.6%, respectively, for the first quarter of 2008. Rising labor income, improving consumer confidence and strong credit

growth underpinned robust retail sales, that confirm the strong personal consumption momentum witnessed during the last few years. Retail sales increased by 12% y-o-y on average in Q1 08 compared to an average of 9.9% y-o-y in the last quarter of 2007 (Figure 4.19). Meanwhile, the figures from the supply side of the economy give a mixed picture. Industrial production has shown some signs of easing in the past few months, moderating from 7.7% y-o-y in Q4 07 to 6.6% y-o-y in Q1 08 likely due to the global slowdown and the strengthening of the Brazilian real. In the meantime, investment remained the growth engine of domestic demand, underpinned by robust corporate credit growth in the face of declining interest rates. Industry and commercial loans in Brazil have increased every month since 2004 owing to record low interest rates and buoyant corporate profitability. Both industry and commercial loans increased by around 30% in Q1 2008 (Figure 4.20).

Figure 4.19

Strong personal consumption on the heels of improving labor market conditions

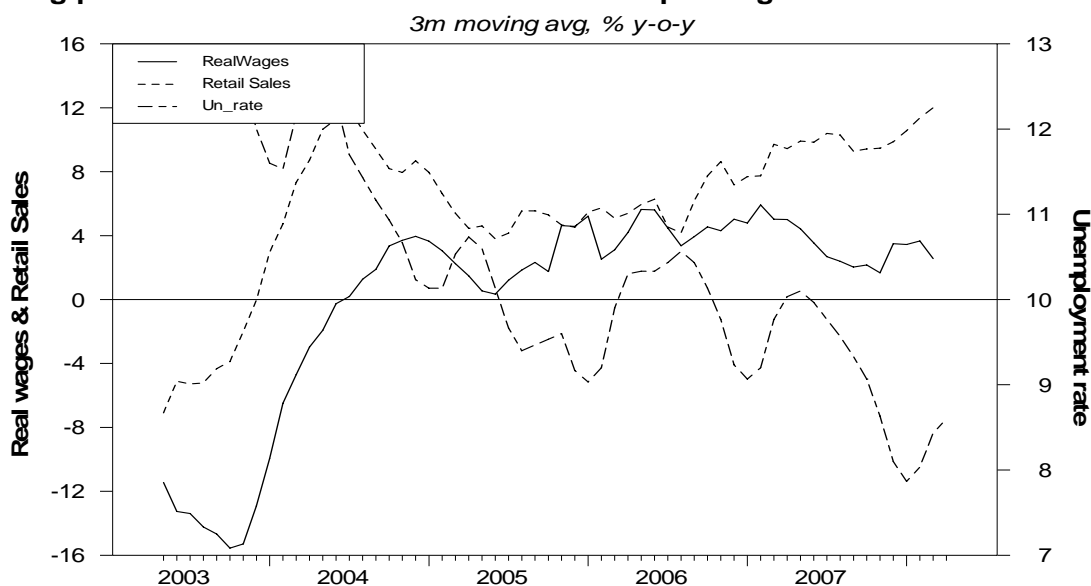
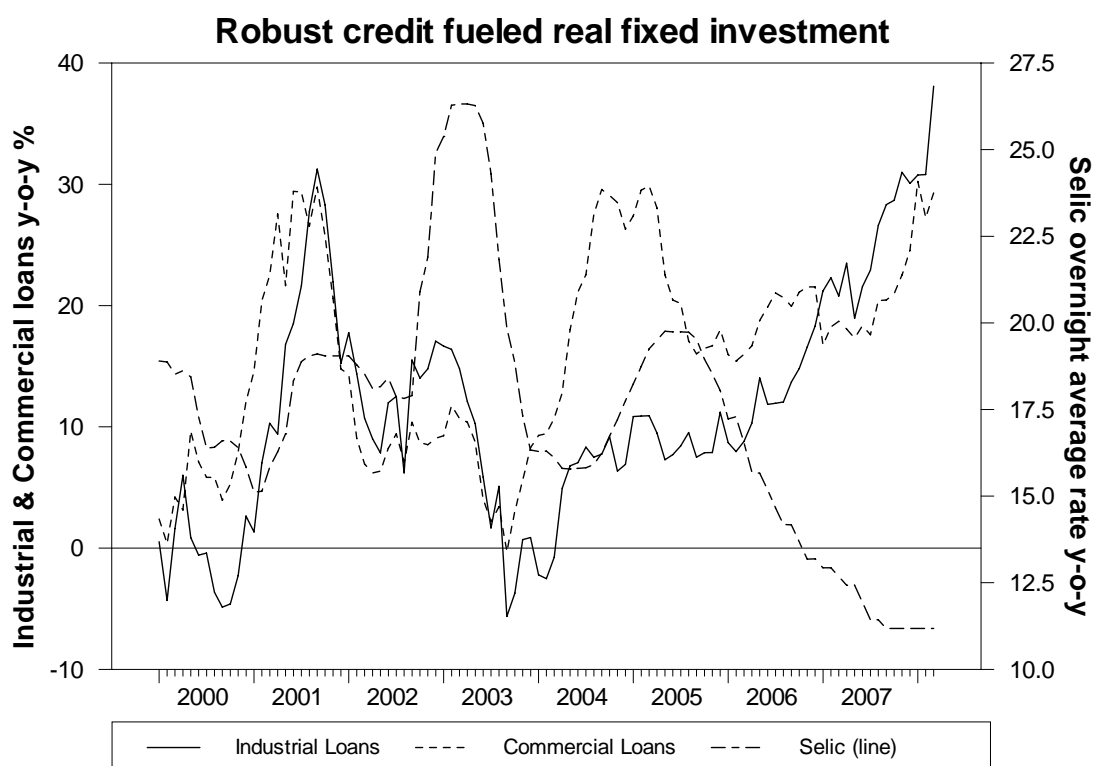


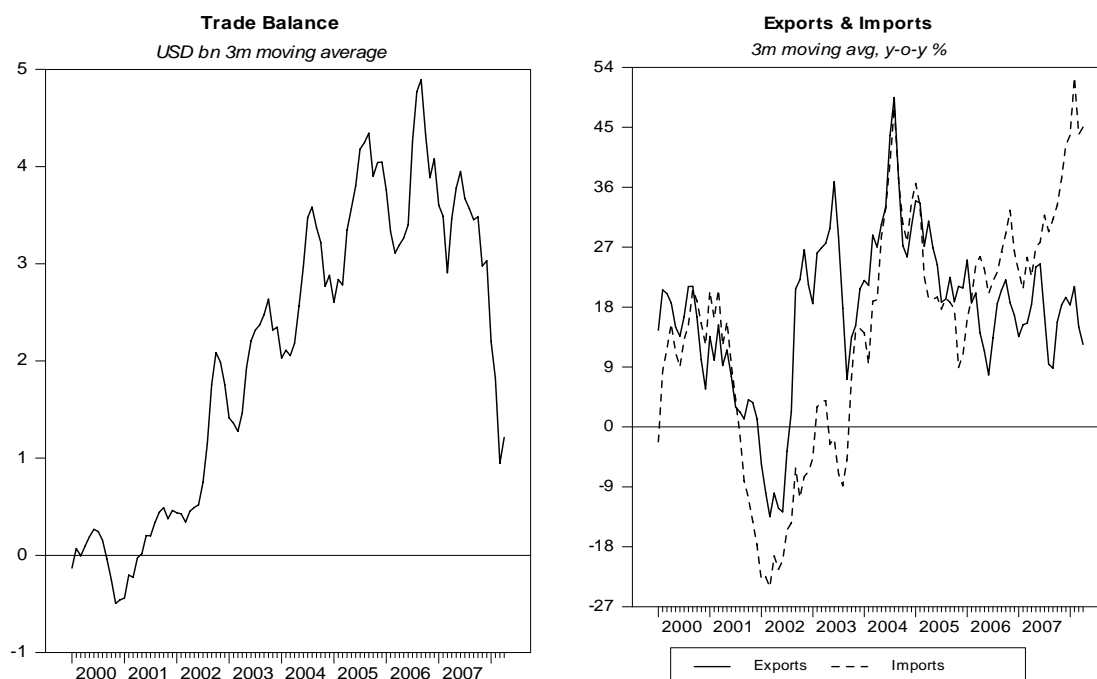
Figure 4.20



External Sector

Strong import growth, underpinned by the robust pace of consumer spending, resulted in a substantial decline of the trade surplus to US\$4.6bn in the first four months of 2007 from US\$12.9bn over the same period in 2007 (Figure 4.21). Export growth is being sustained at high levels primarily on the back of high international commodity prices which offset the decline in export competitiveness owing to the appreciation of the Brazilian currency. Given the above, Brazil's economy is more vulnerable to external shocks, because as the global slowdown unfolds, commodity prices may eventually decline, weighing on exports growth and, in turn, on the trade surplus. Recently, Brazil's government has announced measures to boost export, based on Brazil's existing export dynamics. The aim is to reduce Brazil's dependence on commodity exports, by improving industrial infrastructure.

Figure 4.21



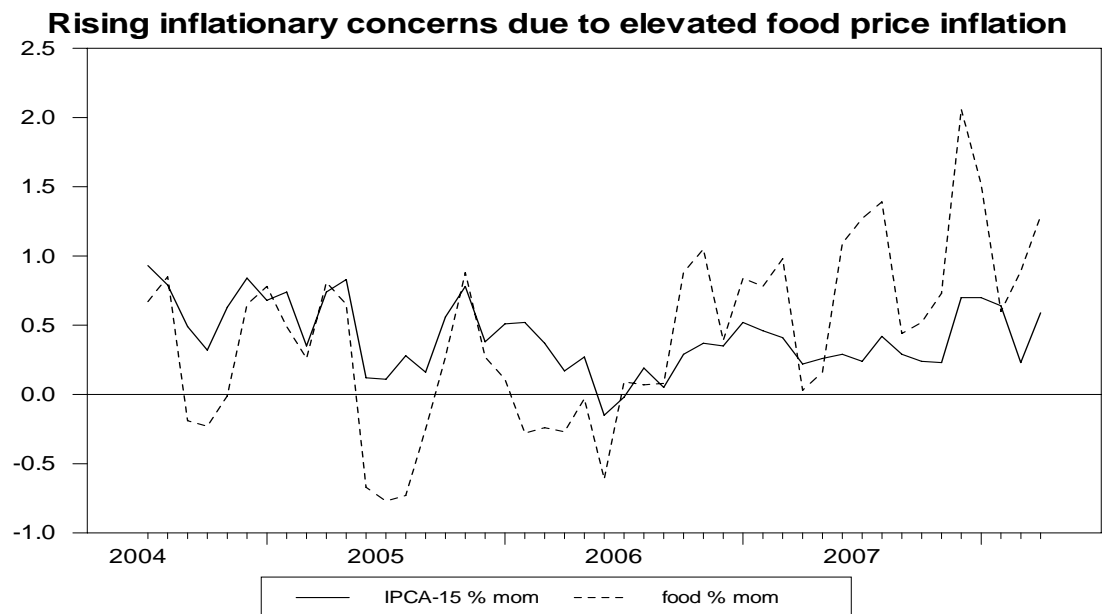
Inflation Dynamics

IPCA-15 inflation, which is used by the Brazilian Central Bank (BCB) to set benchmark interest rates, is on an upward trend in the year to April 2008, reporting a 4.9% y-o-y increase in April 2008, fuelled mainly by high food prices. Although inflation did not diverge that much from the 4.5% target, inflation risks remain significant. The main risks to inflation are the strong expansion of domestic demand, high commodity prices and the increase in the price for imported goods (Figure 4.22).

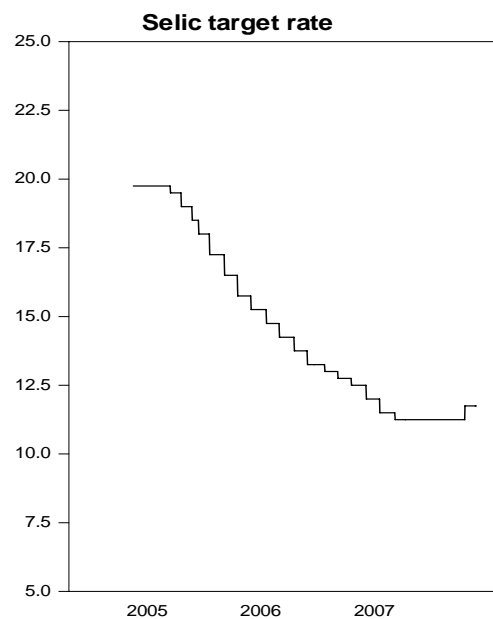
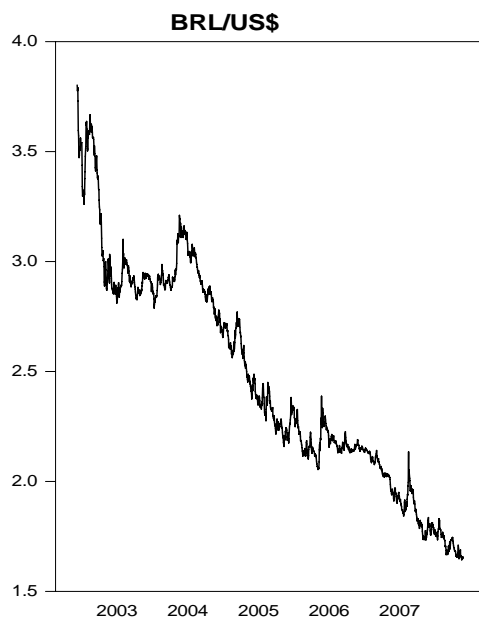
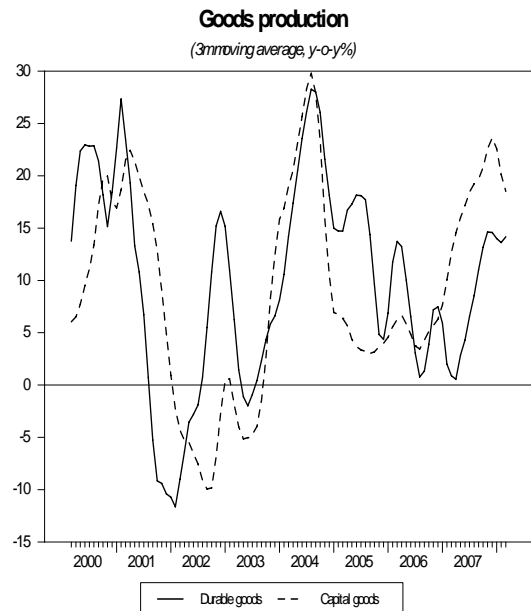
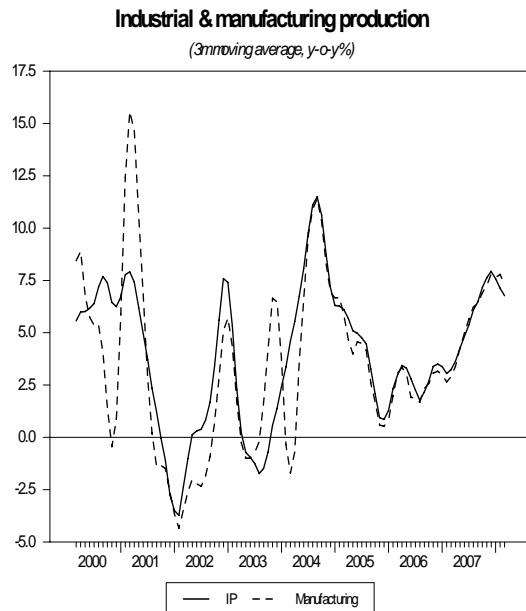
Monetary Policy

Given persistent inflationary concerns, the Brazilian Central Bank raised the Selic benchmark interest rate by 50 bp to 11.75% in mid-April. The Central Bank will likely proceed with further moves in the next few months, to keep inflation within its target range.

Figure 4.22



BRAZIL CHARTS



IV. Global Markets Outlook and Strategy

5. Asset returns during periods of high inflation and low economic growth: Lessons from the past

Dimitris Malliaropoulos, Costas Lambrinoudakis

- The current combination of slowing growth, rising inflation and soaring commodity prices points to comparisons to the 1970's period of stagflation. Although there are important dissimilarities between that era and today, some aspects of the current economic backdrop raise concerns that a period of high inflation and subdued economic growth may lie ahead.
- If the US economy does not fall into recession at all or if the recession will be a shallow one, then inflationary pressures will likely not be sufficiently relieved. In that case, when the economy will show signs of improvement and the Fed hits the brakes (likely in 2009), the US economy may face a period of high inflation, rising interest rates and subdued growth.
- The experience from the 1970s period of stagflation is that an environment of rising inflation and subpar growth is particularly bad for both stocks and bonds. The only sectors that were able to overperform in such an environment were the commodity-related ones (Oil & Gas and Industrial Metals & Gold Mining), which gained from the soaring commodity prices.
- Our analysis suggests that stock prices fall during periods of stagflation because of a combination of three factors: declining growth prospects of companies, rising real interest rates and rising risk premia.

Investors and central banks are currently focusing on the effects of the credit crisis and its feedback on the real economy. The Fed has cut rates aggressively – 325bp since last September – in order to prevent a feedback loop from credit markets to the real economy, while financial markets have rebounded from mid-March lows, following Bear Stearns' bailout, which eased systemic risk concerns among investors. Rising global inflation – most central banks' inflation objectives have been breached since 2004 – does not produce much worry yet. However, the spectacular increase in commodity prices poses a serious medium-term problem for the global economy and financial markets.

The current combination of slowing growth, rising inflation and soaring commodity prices points to comparisons to the 1970's period of stagflation. In that period, a series of adverse supply shocks unleashed a surge in many commodity prices, creating an environment of high inflation and low economic growth. Although there are important dissimilarities between that era and today, such as the wage/price spiral of the early 1970s that is absent today, some aspects of the current economic backdrop raise concerns that a period of high inflation and subdued economic growth may lie ahead.

In particular, if the US economy does not fall into recession at all or if the recession will be a shallow one, which seems the consensus scenario currently, then inflationary pressures will likely not be sufficiently relieved. In that case, the Fed will have to raise rates sharply, when the economy starts to show signs of improvement and headline inflation will be still at elevated levels. Hence, when the Fed hits the brakes – likely in 2009 – the economic rebound may be much softer than Fed officials currently project: the US economy will face a period of high inflation, rising interest rates and subdued growth. Under this scenario, the outcome for financial markets will be ugly. As soon as the conditions in credit markets start to improve substantially, financial markets will wake up with the fear that rising global inflation will lead to a new tightening cycle of monetary policy, dampening economic growth and earnings prospects of companies and increasing cost of capital.

The experience from the 1970s period of stagflation is that an environment of rising inflation and subpar growth is particularly bad for both stocks and bonds. The average annualized total return between 1973 and 1981 in the US market was -4.2% for stocks and -4.6% for bonds. The picture is similar in all major equity markets across the globe, as losses over the same period in terms of annualized total return ranged from -1.2% to -3.4% (Table 5.1).

Table 5.1

Annualised total real returns 1973:Q1 – 1981:Q2

	Bonds	Equities					
Markets	US	World	US	JP	UK	GER	FR
Return	-4.6%	-2.1%	-4.2%	-1.7%	-2.5%	-1.2%	-3.4%

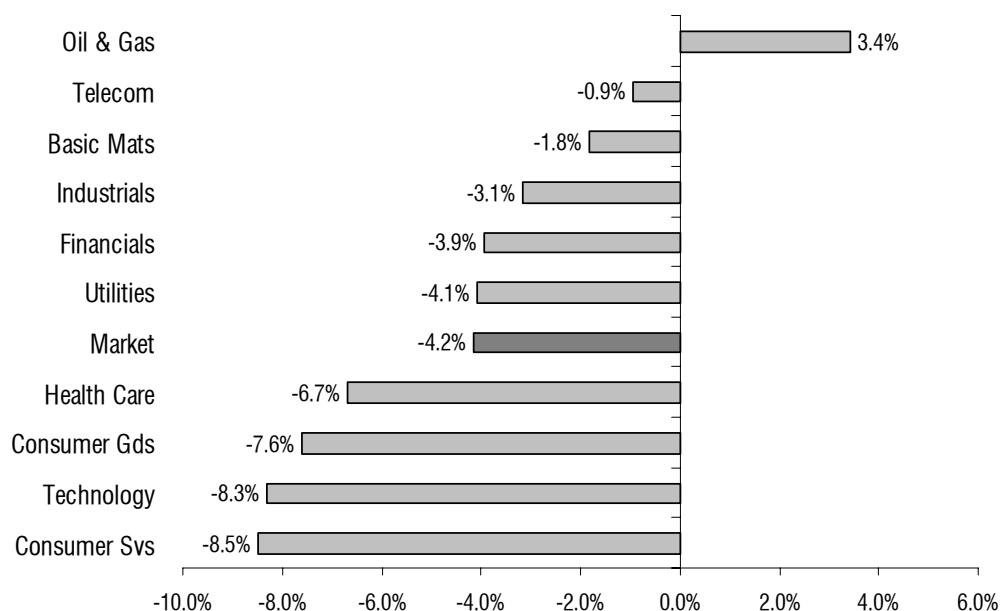
Source: Thomson Financial Datastream

Table 5.2

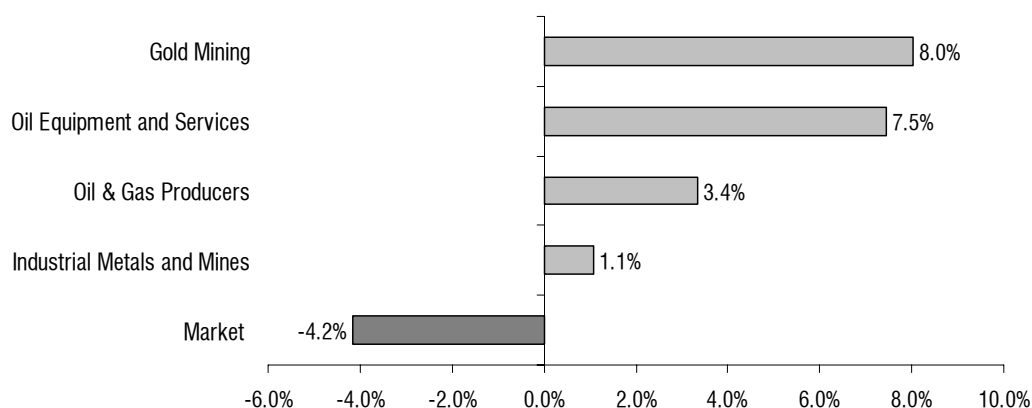
Annualised real commodity price changes 1973:Q1 – 1981:Q2

	Oil	Gold	Food	Metals
Price change	20.1%	14.2%	-0.9%	1.5%

Source: Thomson Financial Datastream

Figure 5.1**US equity sectors: annualised total real return 1973:Q1 – 1981:Q2**

Source: Thomson Financial Datastream

Figure 5.2**US commodity-related equity subsectors:
Annualised total real return 1973:Q1 – 1981:Q2**

Source: Thomson Financial Datastream

The only sector that enjoyed positive total real returns is Oil & Gas (3.4% ann.), whereas Telecoms and Basic Materials outperformed the market average (-4.2%) though having negative annualized returns of -0.9% and -1.8% respectively. On the contrary, Consumer Goods (-7.6% ann.), Consumer Services (-8.5% ann.) and Technology (-8.3% ann.) were the worst performers (Figure

5.1). The relative outperformance of Oil & Gas and Basic Material sectors is attributed to the fact that these sectors consist mainly of commodity-related companies, which gained from the soaring commodity prices during the 1970s (Table 5.2). Our view is corroborated when we look at equity subsectors' total real returns. Companies involved in the production of commodities, namely Oil & Gas Producers (3.4% ann.) and Oil Equipment & Services (7.5% ann.) from the Oil & Gas sector and Industrial Metals & Mines (1.1% ann.) and Gold Mining (8.0% ann.) from the Basic Materials sectors, had all positive total real returns between 1973 and 1981 (Figure 5.2).

We also analyzed equity sector performance during periods of high inflation and low growth in more detail. We spotted four periods in the US economy since 1973, which were characterized by above trend inflation (3.8% yoy, 50-year average) and below trend growth (3.4% yoy, 50-year average). These are the following: Q1 1974 - Q4 1975, Q2 1979 - Q2 1981, Q4 1981 - Q4 1982, Q4 1989 - Q2 1991.

Such periods are unkind to stocks. The stock market peaks before the start of such periods and bottoms before the end. In terms of market peak to market trough returns, Oil & Gas seems to be the best relative performer across all sectors (among the best three performers in 3 out of 4 periods) and Consumer Goods (among the worst three performers in 3 out of 4 periods) the worst (Table 5.3). The outperformance of Oil & Gas sector is attributed to rising energy prices during the aforementioned periods. The first two periods correspond to the two major oil supply shocks of the 1970s, and the fourth to the invasion of Iraq in Kuwait. In contrast, during the third period, though inflation was still high, energy prices started to retreat from historical highs reached amid the second oil crisis that had preceded. As a result, the Oil & Gas sector posted the worst performance across all sectors.

The broad message from our analysis is that an environment of high inflation and low growth is bad for stocks. But why is that so? Does this environment affect earnings growth or risk premia or both? We analyzed this issue using data of economic earnings of all US companies from the BEA.

Earnings growth lags behind during periods of high inflation and low economic growth such as the 70s (Table 5.4). Real earnings growth went negative in the 70s (-1.9% vs 4.9% in 1990-2008). Hence, stock market valuations decline because inflation leads to a deterioration of the growth outlook of companies' profits. The decline in real earnings growth is due to a combination of slowing aggregate demand – as inflation eats into real household income and leads to lower

economic growth – and lower profit margins (-0.2% growth in the 70s vs 0.2% in 1990-2008) as the pricing power of companies declines due to deteriorating demand for their products and rising costs, both labor costs, costs of raw materials such as energy and metals and rising capital costs, as monetary authorities tend to hike rates aggressively to combat inflation.

Table 5.3

US equity sectors:

Total real return in periods of above trend inflation and below trend growth

Q1 1974 - Q4 1975		Duration (months)	Return										
			Market	Oil & Gas	Basic Mats	Industrials	Consumer Gds	Health Care	Consumer Svs	Telecom	Utilities	Financials	Technology
Market peak to start of period	31/12/1972 - 31/12/1973	12	-23.5%	0.2%	-7.7%	-22.6%	-46.2%	-24.1%	-35.2%	-11.4%	-26.9%	-26.1%	-26.5%
Start of period to market trough	31/12/1973 - 30/9/1974	9	-39.5%	-40.8%	-31.4%	-44.5%	-28.0%	-42.1%	-45.5%	-22.8%	-35.7%	-49.0%	-42.7%
Market peak to market trough	31/12/1972 - 30/9/1974	21	-53.7%	-40.7%	-36.7%	-57.1%	-61.3%	-56.1%	-64.7%	-31.6%	-53.0%	-62.3%	-57.8%
Market trough to end of period	30/9/1974 - 31/12/1975	15	36.2%	32.4%	42.7%	33.2%	51.2%	33.7%	43.3%	25.1%	46.1%	38.0%	26.2%

Q2 1979 - Q2 1981		Duration (months)	Return										
			Market	Oil & Gas	Basic Mats	Industrials	Consumer Gds	Health Care	Consumer Svs	Telecom	Utilities	Financials	Technology
Market peak to start of period	31/8/1978 - 30/3/1979	7	-5.0%	6.2%	1.1%	-11.0%	-8.2%	-12.1%	-12.5%	-1.5%	-6.5%	-8.1%	0.3%
Start of period to market trough	30/3/1979 - 31/3/1980	12	-10.9%	22.4%	-14.5%	-3.3%	-23.0%	-13.3%	-17.4%	-22.9%	-20.4%	-14.6%	-25.3%
Market peak to market trough	31/8/1978 - 31/3/1980	19	-15.3%	30.0%	-13.6%	-13.9%	-29.3%	-23.8%	-27.7%	-24.1%	-25.5%	-21.5%	-25.1%
Market trough to end of period	31/3/1980 - 30/6/1981	15	20.1%	8.3%	27.1%	17.1%	12.6%	27.5%	50.5%	16.9%	16.6%	39.6%	4.4%

Q4 1981 - Q4 1982		Duration (months)	Return										
			Market	Oil & Gas	Basic Mats	Industrials	Consumer Gds	Health Care	Consumer Svs	Telecom	Utilities	Financials	Technology
Market peak to start of period	28/11/1980 - 30/9/1981	10	-18.3%	-40.7%	-22.0%	-23.3%	-13.6%	-3.0%	-9.3%	19.8%	-0.9%	2.4%	-27.1%
Start of period to market trough	30/9/1981 - 30/7/1982	10	-3.8%	-23.0%	-17.4%	-6.5%	-3.2%	10.9%	4.6%	-6.2%	10.4%	-9.0%	7.9%
Market peak to market trough	28/11/1980 - 30/7/1982	20	-21.5%	-54.3%	-35.6%	-28.3%	-16.4%	7.5%	-5.1%	12.4%	9.4%	-6.8%	-21.3%
Market trough to end of period	30/7/1982 - 31/12/1982	5	35.3%	24.5%	41.5%	40.0%	51.0%	27.9%	46.5%	21.8%	21.8%	45.6%	49.9%

Q4 1989 - Q2 1991		Duration (months)	Return										
			Market	Oil & Gas	Basic Mats	Industrials	Consumer Gds	Health Care	Consumer Svs	Telecom	Utilities	Financials	Technology
Market peak to start of period	31/8/1989 - 29/9/1989	1	-0.4%	1.3%	-3.3%	-2.4%	-4.1%	0.1%	-2.2%	4.6%	0.3%	2.5%	-2.7%
Start of period to market trough	29/9/1989 - 31/10/1990	13	-14.1%	5.9%	-27.7%	-17.6%	-34.8%	5.4%	-27.9%	-11.8%	1.8%	-38.4%	-17.1%
Market peak to market trough	31/8/1989 - 31/10/1990	14	-14.5%	7.2%	-30.1%	-19.5%	-37.4%	5.5%	-29.5%	-7.8%	2.0%	-36.9%	-19.3%
Market trough to end of period	31/10/1990 - 30/6/1991	8	25.0%	3.6%	38.5%	32.4%	33.7%	27.9%	41.2%	1.7%	3.5%	52.6%	21.4%

Table 5.4**Earnings and profit spreads of US companies**

	Total sample 1950:Q1 - 2008:Q1	High inflation period 1973:Q2 - 1981:Q2	Low inflation period 1990:Q1 - 2008:Q1
Annual inflation rate	3.9%	8.6%	2.9%
Real earnings yoy growth	3.4%	-1.9%	4.9%
Profit spreads* yoy growth	0.1%	-0.2%	0.2%

* Proxied by the yoy change in the business price deflator and unit labor costs

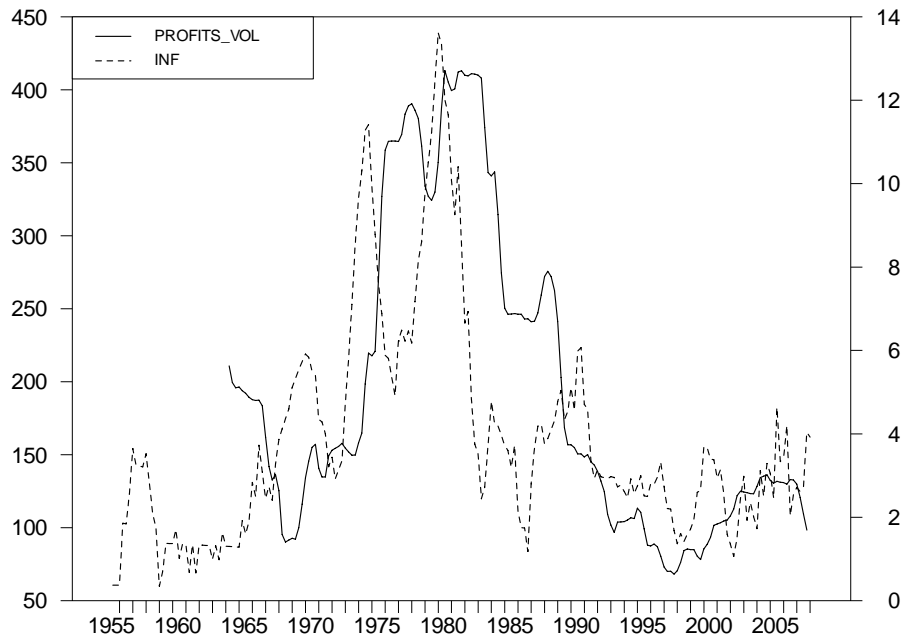
Volatility of both nominal and real earnings growth is also quite different across periods of high inflation and periods of low inflation. Volatility of real earnings in the 1970s is double the volatility of the 90-08 period of low inflation. Volatility of real earnings growth moves in tandem with the level of inflation (Figure 5.3). Moreover, earnings uncertainty commoves with inflation uncertainty (Figure 5.4). This implies that in a more uncertain environment regarding companies' profits, discount rates of future earnings rise because of increasing risk premia.

Real rates also increase during periods of higher inflation as central banks hike short term rates to fight inflation. Figure 5.5 shows that real fed funds rates (measured as the difference of nominal fed funds rates and core cpi inflation) have risen significantly during the 1970s. This rise in real rates has led to a sharp increase in real discount rates used to discount real future earnings.

As a result, stock prices fall during periods of stagflation because of a combination of three factors: declining growth prospects of companies, rising real interest rates and rising risk premia.

Figure 5.3

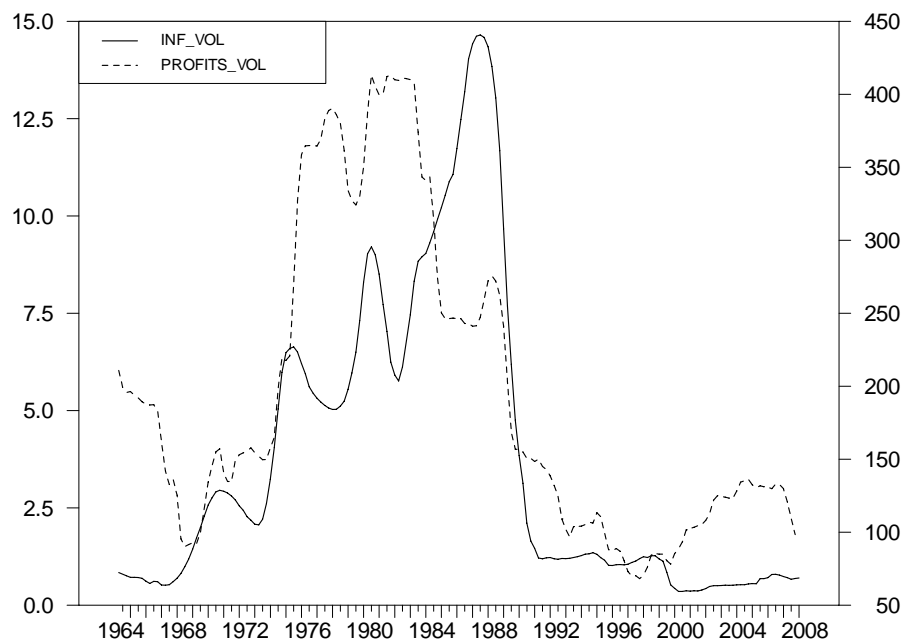
Volatility of economic profits and CPI inflation



Note: Economic profits from national accounts data, BEA, volatility is measured by variance of past 3 years

Figure 5.4

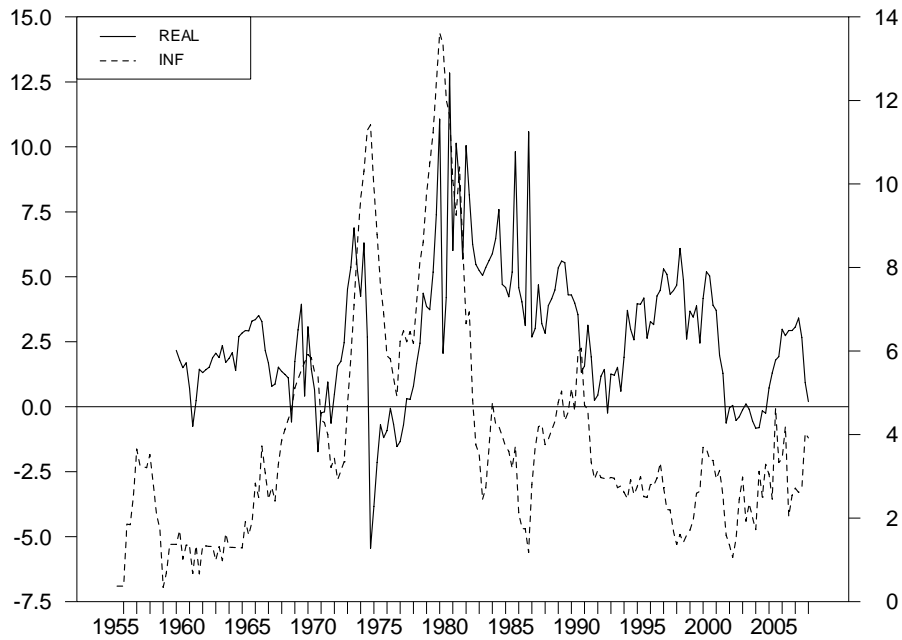
Volatility of economic profits and inflation volatility



Note: Economic profits from national accounts data, BEA, volatility is measured by variance of past 3 years

Figure 5.5

Real Fed funds rates and CPI inflation



6. Government Bond Markets

Dimitris Malliaropoulos

US Treasuries

Treasury yields moved higher during the past three months as risk appetite rebounded following the Bear Stearns rescue in March, fuelling a relief rally in equities and credit and a sell off in government paper. In addition, Treasuries were hit by the sharp increase in oil and commodity prices, which has led to an upward adjustment of inflation expectations. This, in turn has led investors to increasingly discount an end of the aggressive Fed easing, pushing Treasury yields higher and the yield curve flatter.

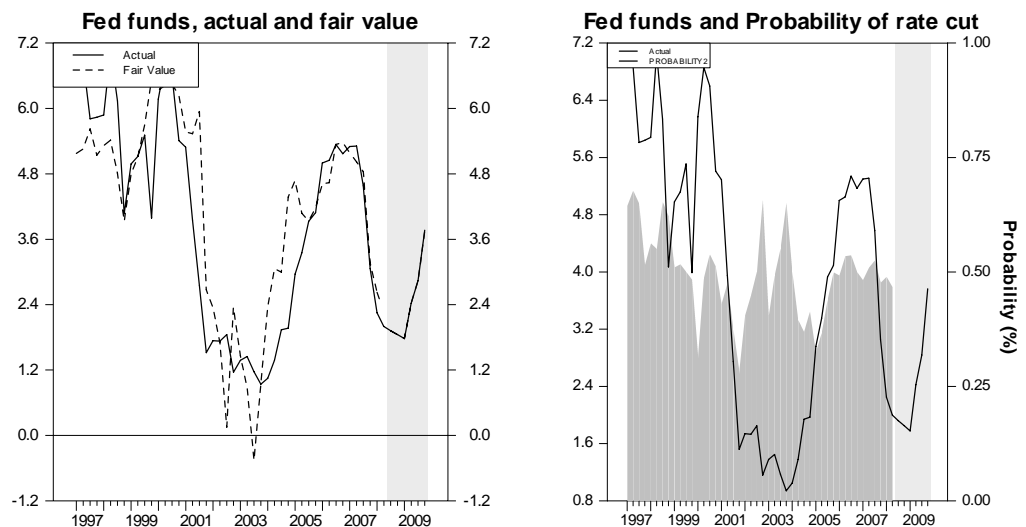
Current bond market valuations have in our view fully priced in the Consensus view that the Fed will soon stop cutting rates, as the worst of the credit crisis is likely over, the recession in the US will be likely short and shallow, but deep enough to lead inflation lower within a reasonable time span and without the need of aggressive rate hikes by the Fed in the following years. We agree with the general view that Treasury yields will be heading higher on a longer time horizon as inflation fears will increasingly get priced in bond markets. But, overall, the downside risks to the US economy have not evaporated and we expect the Fed to cut rates in the following months more than the market expects. That said, the bottom of the Fed funds cycle is getting closer – which we view at a Fed funds rate of 1.75% in Q3 -- and we expect the Fed to start hiking rates early in 2009 to deal with rising inflation (Figure 6.1).

As we pointed out in our previous issue (Global Economic & Market Outlook, February 2008), the current cycle of Fed easing differs from previous cycles in one important respect: This time, the Fed acted very much proactively, responding to the worsening credit crisis rather than to the deterioration of the outlook of the US economy. Using a standard Fed policy reaction function, where the Fed funds is set in response to core PCE inflation and the tightness of the labor market (our preferred measure of the state of the economy, computed as one over the product of the rate of unemployment and the median duration of unemployment), Fed funds rates ought to be 200 bps higher than currently (i.e. at 4%). Hence, the aggressive rate cuts seen since last August in the face

of rising inflation are to a large part the response of the Fed to the credit crisis rather than an outright deterioration of the state of the US economy.

Figure 6.1

Fed funds rate

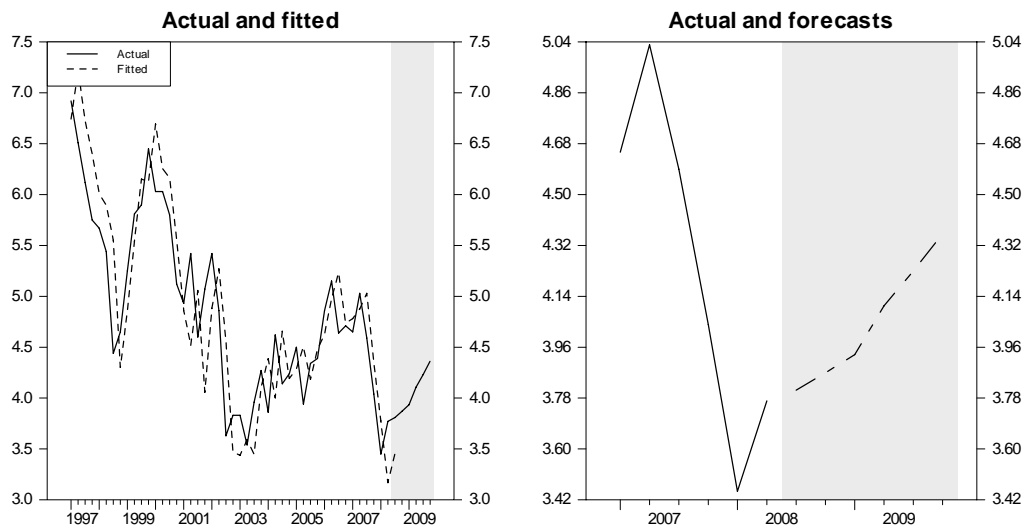


*Source: Eurobank EFG model estimates

This has two implications: First, the Fed can remove the dovish bias soon after conditions in credit markets improve. Second, as the Fed acted early enough, the effects of policy easing on the real economy will become visible earlier than in previous easing cycles. As a result, with inflation remaining at elevated levels, the Fed will not sit on hold for long. Our policy reaction function suggests that Fed funds rates will start to increase early in 2009 by more than 200bps and reach 3.75% - 4% in December 2009.

Given this outlook for short-term interest rates, we expect 10-year Treasury yields to move slightly lower towards 3.75% in Q3 as markets will increasingly discount a further cut by the Fed and join an upward trend towards 4.50% in 2009 as the economy rebounds (Figure 6.2).

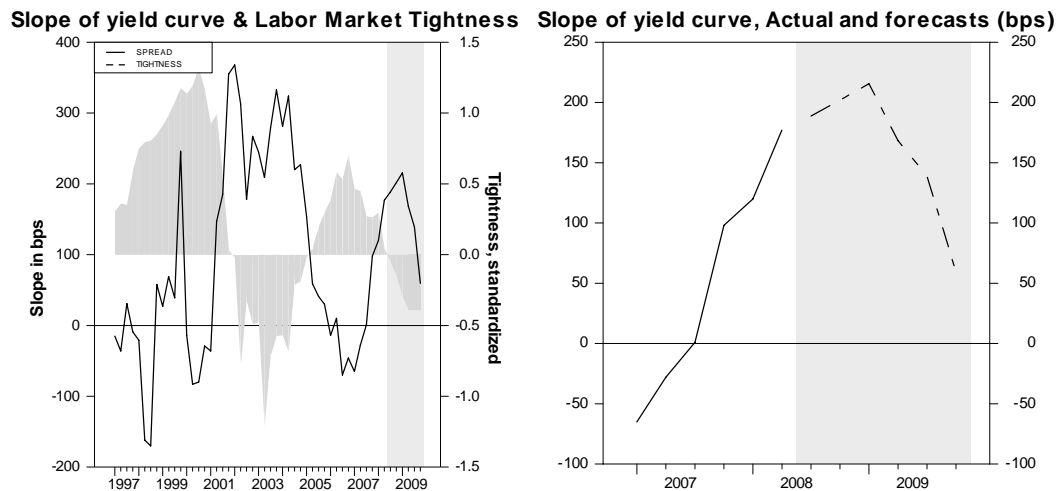
Figure 6.2

10 year US Treasury rate

*Source: Eurobank EFG model estimates

Slope of US Treasury Curve

The steepening of the US Treasury curve has largely run its course during the past few months as markets were increasingly looking for an end to the Fed easing cycle and hence for a bottom in the front-end of the yield curve. As a result, the 10-2-year spread has tightened over the past couple of months as shorter maturities sold off. However, with unemployment cumulating over the next few quarters, we expect the yield spread between 10-year Treasuries and Fed funds to continue to widen in H2 as the Fed cuts short term rates once more and economic growth starts to improve modestly. Overall, we expect the slope of the term structure (10-year versus Fed funds) to steepen by up to 45 bps until year-end and flatten thereafter significantly by 150 bps until Q4:09 (Figure 6.3, right). The combined fiscal and monetary policy actions have also helped restore some stability in credit markets, leading to some unwinding of the flight-to-quality bid on Treasuries. Overall, we believe that all these factors could drive spreads narrower, leading to a progressive flattening of the yield curve for short and intermediate maturities in the long term.

Figure 6.3**Slope of Treasury Yield Curve***10-y US Treasury - Fed Funds*

*Source: Eurobank EFG model estimates

Shaded series in left graph represents labor market tightness

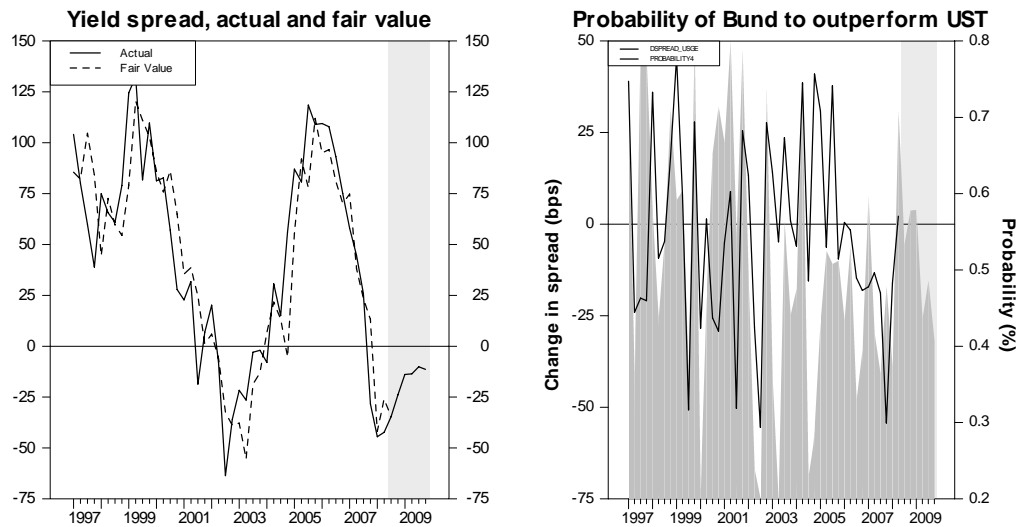
Treasury-Bund spread

Over the past three months, the Treasury-Bund spread has continued its downward trend of the past two years, although at a slower pace, declining from -30 bps in January to -40 bps in mid-May. Comparing the recent price moves with previous historical episodes, we believe that spread narrowing has run its course, as spreads have declined by 150bps over the past twelve months, close to the 2001 recession event, when the Treasury-Bund spread had declined by about 175bps peak to trough. Most of the decline in the spread was driven by the decline in Treasury yields as the result of the cyclical bull run towards Treasuries. In terms of fundamentals, our fair value Treasury-Bund model suggests that most of the spread tightening over the past twelve months was due to the decline in the PMI relative to the German IFO expectations index, i.e. the worsening of the economic outlook of the US relative to Germany and the euro area. This force will likely seize in the near term, as leading indicators in the euro area have started to weaken too, suggesting a slowdown of economic activity in 2008 and 2009. Looking forward, we believe that Bunds are likely to outperform Treasuries over the next few months, as economic data from the euro area start to come out weaker, enforcing expectations of ECB rate cuts. In fact, our probit model of the Treasury-Bund spread suggests that Bunds will likely outperform Treasuries in H2 with a probability of 55%.

We expect the 10-year Bund yield to decline by 15bps to 4.0% in July and move to 3.90% by year-end.

Figure 6.4

10-y Treasury - Bund Spread



*Source: Eurobank EFG model estimates

7. Equity Markets

Dimitris Malliaropoulos

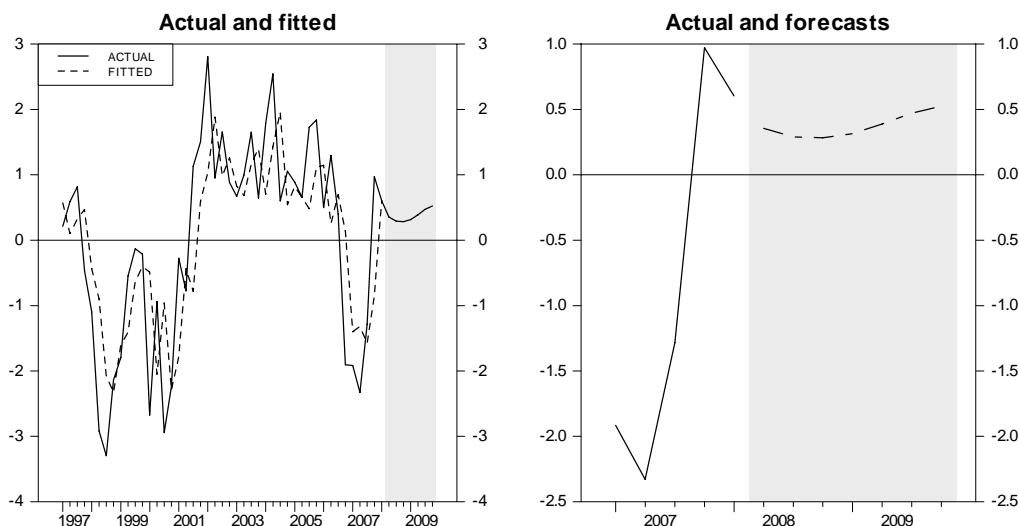
The rescue of Bear Stearns in March and the following reduction in the risk of a financial meltdown has triggered a relief rally in equities, in spite of sharply rising oil prices and a worsening trade-off between inflation and growth for the global economy. The sharp rebound of global equity markets from their mid-March lows suggests that investors discount the worst of the credit crisis is over, the US recession will be short-lived and shallow and global growth will hold well. Q1 corporate earnings results were also quite supportive of this view, as the earnings season has been better than expected for the non-financial sector: S&P500 earnings dropped in Q1 by 16.4% y-o-y, but most of the decline was due to financials (-81.3%), whereas earnings of S&P500 ex financials increased by 10.0%. However, most of the earnings growth came from the energy sector.

The rebound in equity markets since mid-March is in our view a typical bear market rally as it occurred on the back of a worsening economic outlook, sharply rising global inflation and an unfolding credit crisis. Looking forward, we expect equity valuations to increasingly reflect the economic fallout from the US recession as

- The sharp deceleration of personal consumption growth in the US and the continuing housing market downturn suggest that the ongoing recession will be both deep and painful. As analyzed above, we expect this recession to be one of the worst recessions in post-war US history in terms of economic fallout.
- Corporate earnings growth for the rest of the year will likely disappoint. In our view, the positive surprise in non-financial corporate profits in Q1 came mainly from a rebound in profit margins amid declining domestic demand as producer price inflation increased sharply over the past six months (to 6.70% y-o-y in Q1:08, up from 3.15 one year ago) and unit labor costs decelerated significantly from 4.20% in Q1:07 to 0.9% in Q4:07. As a result, profit margins, as proxied by the difference between business price inflation and ULC growth, increased by 1% y-o-y in Q1 for the first time since mid-2006 (Figure 7.1).

Figure 7.1

Corporate Profit Spread y-o-y

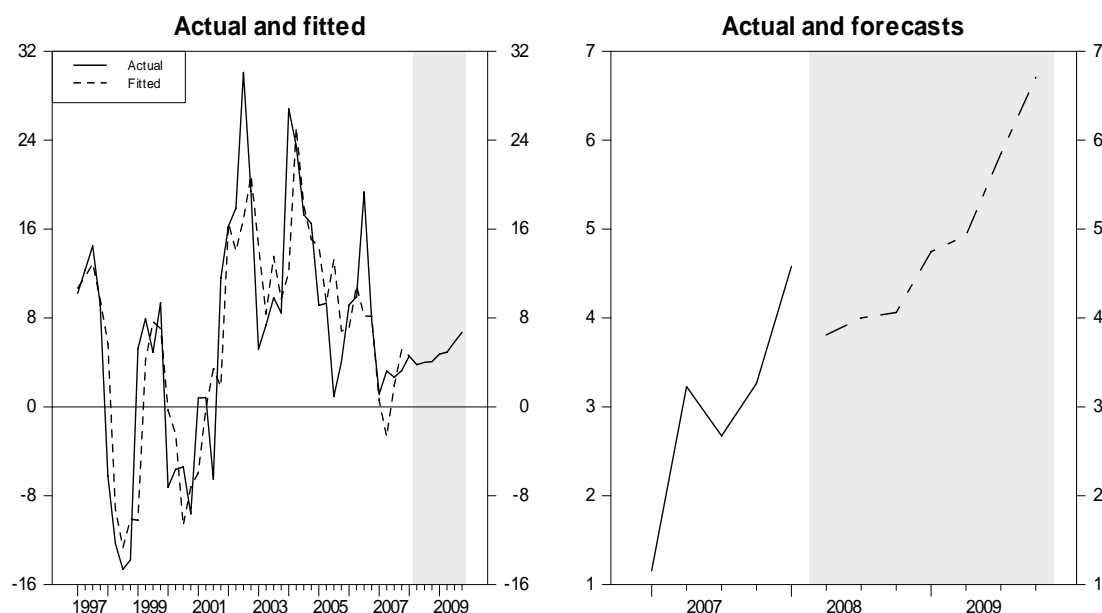


*Source: Eurobank EFG model estimates

In other words, corporate margins were largely supported in Q1 by rising inflation (an opportunity for many firms to pass through increasing costs of energy and commodity inputs to consumers) and cumulating labor market slack. The increase in profit margins has helped companies counterbalance the negative effect of slowing aggregate demand on corporate earnings. Looking forward, profit margins will in our view provide only temporarily support to corporate earnings. With domestic demand faltering in Q2, corporate earnings of US companies will be hurt harder. Given our GDP and profit spread projections, we expect economy wide profits of US companies to increase by 4% in 2008 and rebound to 6.7% in 2009, much less than current Consensus estimates (Figure 7.2).

Figure 7.2

Corporate Profits y-o-y



*Source: Eurobank EFG model estimates

- We have not yet seen the typical P/E multiple compression during recessions. We examined the P/E multiple compression during the past eight US recessions and bubble-burst episodes and we found that the average P/E decline from peak to trough of the market movement is 27.3% (Table 7.1). The P/E typically declines by a minimum of 14.5% (1990-91 recession), up to 27.3% (1969-70 and 1980 recession episodes). However, there is an exception of the 1973-75 recession, when the P/E compression surpassed 60%, as a result of the oil embargo imposed on the West by the OPEC which led to the oil price shock and the enormous equity bubble-burst. Currently, the trailing P/E of the S&P 500 price index has declined by about 1.7% since its peak in October 2007.

Table 7.1: S&P 500 P/E Compression during Recessions

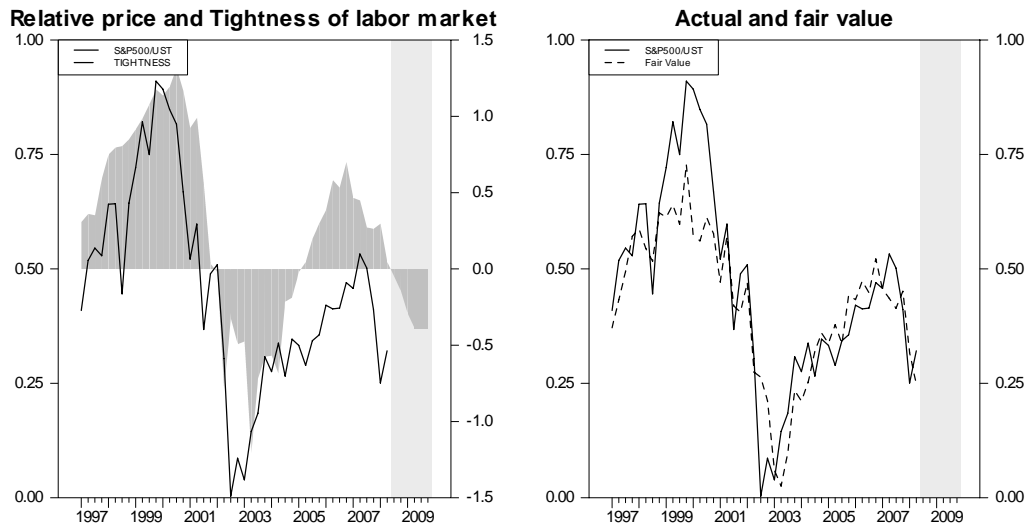
NBER US Recessions	P/E multiple Peak before recession	P/E multiple Trough during Recession	P/E % change
1. 08/57 -04/58	07/57: 14.3	12/57: 11.7	-18.2
2. 04/60 -02/61	07/59: 20.0	07/60: 15.6	-22.0
3. 12/69 -11/70	11/68: 18.4	06/70: 13.4	-27.2
4. 11/73 - 03/75	12/72: 19.3	09/74: 7.2	-62.7
5. 01/80 - 07/80	12/76: 11.3	02/78: 8.2	-27.4
6. 07/81 - 11/82	11/80: 9.4	07/82: 7.2	-23.4
7. 07/90 - 03/91	06/90: 16.6	10/90: 14.2	-14.5
8. 03/01 - 11/01	08/00: 29.5	03/01: 22.6	-23.4
Average	17.4	12.5	-27.3
Median	17.5	12.6	-23.4
Current Cycle	10/07: 17.3	05/08: 17.0	-1.7

Note: The peak and the trough of the P/E ratio usually coincide with the peak and the trough of the stock market. However, there are cases where P/E ratio continues to decline after stock prices had reached their troughs, due to the rebound of corporate earnings after the end of a bear market. Should we take into account the P/E compression from peak to trough independently of whether we are in a bear or a bull equity market, the average decline in the P/E ratio would be even bigger.

- Finally, we remain cautious on equities as our long-term fair value model of US equities versus bonds suggests that the S&P500 is currently 8% overvalued relative to the 10-year Treasury index. Our fair value model estimates the relative attractiveness of stocks versus bonds as a function of the state of the economy, proxied by labor market tightness, consumer confidence, the level of Fed funds rates and volatility. The fair value of stocks relative to bonds has a typical business cycle pattern as it commoves over long periods with labor market tightness, proxied by the inverse of the product of unemployment rate and median duration of unemployment (Figure 7.3).

Figure 7.3

S&P500 relative to US Treasury



*Source: Eurobank EFG model estimates

Shaded series in left graph represents labor market tightness

Table 7.2 reports the decomposition of the change in the fair value of stocks relative to government bonds in Q1 and Q2:08 relative to the previous quarter. It appears that the cumulating labor market slack and the significant decline in consumer confidence have contributed to a decline in the fair value of the S&P500 by 8.5% relative to the 10-year Treasury index.

Table 7.2
Stocks versus Bonds Fair Value Calculations
(S&P 500 relative to 10-y Treasury Index)

	Q1:08	Q2:08
Valuation gap (% deviation of market from fair value)	-7.0	+8.0
Contribution to fair value relative to Q1:08 (% change)		
Labor Market Tightness	-5.5	
Consumer Confidence	-3.0	
Fed funds	+1.5	
Volatility	-0.2	

*Source: Eurobank EFG model estimates

Positive valuation gaps indicate that stocks are overvalued relative to government bonds. This, of course, does not imply that bonds are undervalued in absolute terms.

Fed funds cuts in Q2 provided so far only partial support to fair values (1.5%), confirming our view in February that, looking forward, the Fed will be less able to shore up confidence in equity markets as the economic outlook continues to worsen (Global Economies & Markets Outlook, February 2008). Looking forward, we expect unemployment to increase to 5.9% and labor market tightness to decline 40% below its business cycle average by year-end. This worsening of the state of the real economy will likely lead to a decline in the fair value of equities relative to bonds by another 5%, increasing the valuation gap to 12% in Q3 from 8% currently.

8. Credit Markets

Dimitris Malliaropoulos, Costas Lambrinoudakis, Olga Kosma

Credit Markets

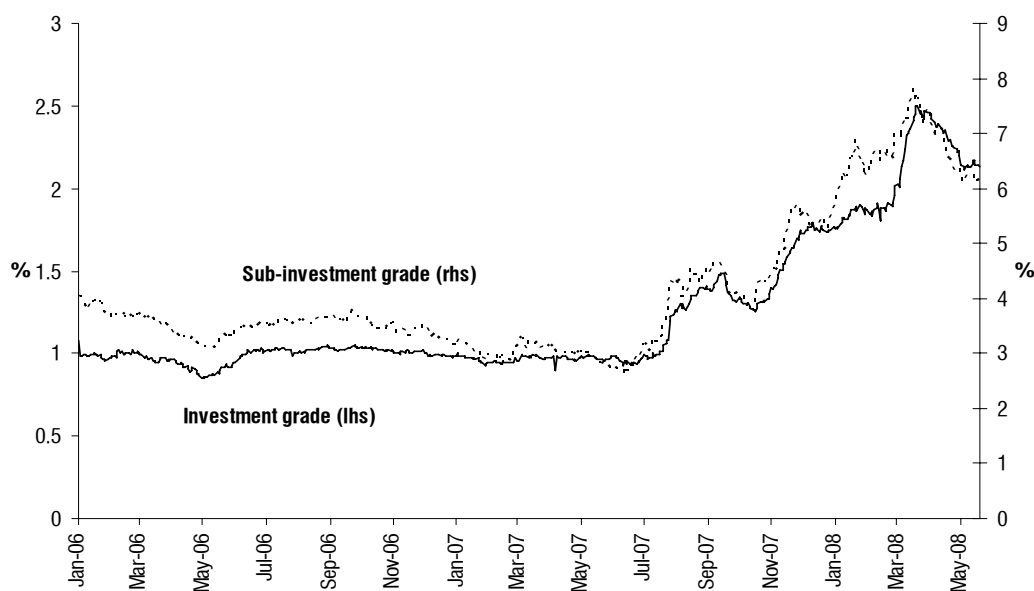
- Credit markets continued to suffer during most of Q1 2008. Spreads widened to new multi-year highs across all market segments, including corporate bonds, credit default swaps and asset-backed securities. Since mid-March, credit markets have rebounded strongly.
- The severe decline that lasted until mid-March is attributed to (a) systemic fears concerning financial firms and the stability of the financial system, (b) a significant bout of de-leveraging by investors, namely heavy liquidation of highly leveraged structured credit products and (c) the deteriorating economic outlook.
- The subsequent rebound is attributed to (a) the gradual removal of systemic risk worries, following the FED's initiative to rescue Bear Stearns and (b) the Q1 08 macroeconomic and earnings data that were not quite as bad as feared.
- Looking forward, we believe that the relief rally, started in mid-March, is coming to an end and the balance of risks driving credit market performance is about to change. It is likely that there will be a shift from systemic risk fears about the financial system to risks concerning the economic outlook.
- Should risks stemming from the weakening of the economic environment realize, then high-yield debt is expected to underperform high-grade, since it is more sensitive to an economic deterioration and has overperformed so far. However, the ongoing process of deleveraging by investors posts a significant source of uncertainty concerning the high-grade sector.

Bank Lending

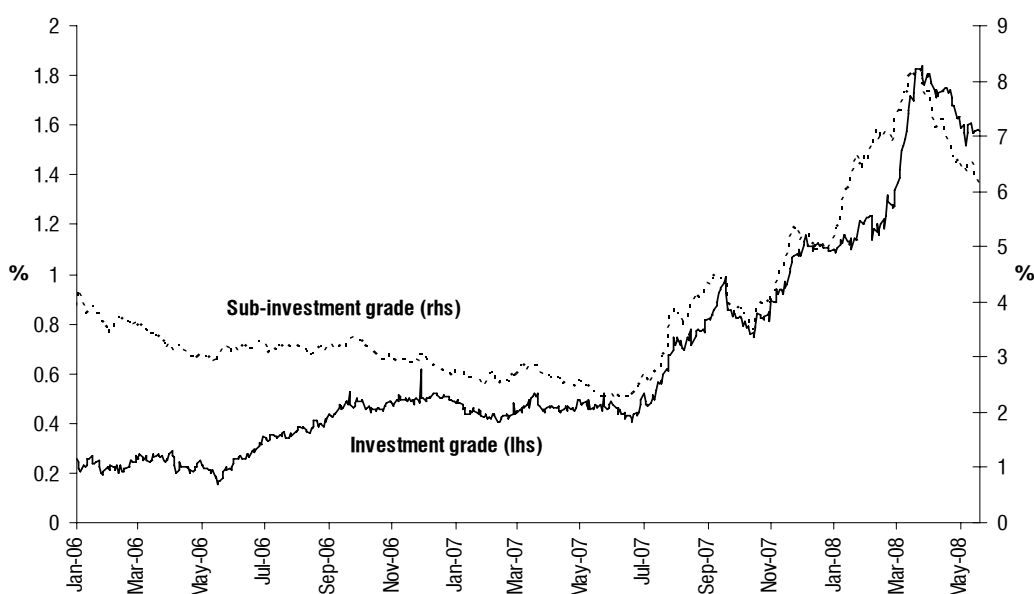
- The effects of the credit crisis on banks, namely the impairment of their access to funding, higher funding costs and the deterioration of their capital position, is likely to make them unwilling or even unable to extend credit.
- Indeed, the latest Bank Lending Surveys conducted by the Fed and the ECB, revealed an aggressive tightening in credit conditions, spreading from the real estate sector to the business and consumer sectors. This increases the risk of a slowdown in the rates of lending growth to households and enterprises.

Credit Markets

Credit markets continued to suffer during most of Q1 2008. Spreads widened to new multi-year highs across all market segments, including corporate bonds, credit default swaps and asset-backed securities (Figures 8.1-8.5). The severe decline that lasted until mid-March is attributed to (a) systemic fears concerning financial firms and the stability of the financial system, (a) a significant bout of de-leveraging by investors, leading to heavy liquidation of highly leveraged structured credit products and (c) the deteriorating economic outlook.

Figure 8.1**US Corporate bond yield spreads¹ over 10-year government bond**

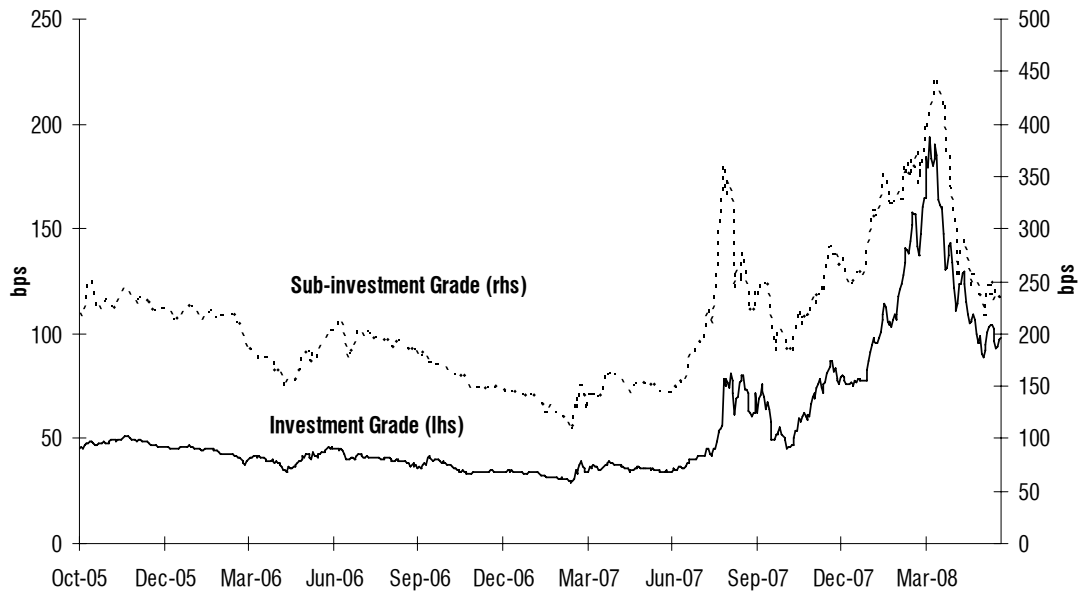
¹ Investment grade = spreads between yields on Merrill Lynch US IG Corporate Master Index (COA0) and on 10-year US government benchmark bond; Sub-investment grade = spreads between yields on Merrill Lynch US High Yield Master II Index (H0A0) and on 10-year US government benchmark bond

Figure 8.2**EU Corporate bond yield spreads¹ over 10-year government bond**

¹ Investment grade = spreads between yields on Merrill Lynch Euro Zone Broad Corporate Index (ER00) and on 10-year Euro Zone government benchmark bond; Sub-investment grade = spreads between yields on Merrill Lynch European Currency High Yield Index (HP00) and on 10-year Euro Zone government benchmark bond

Figure 8.3

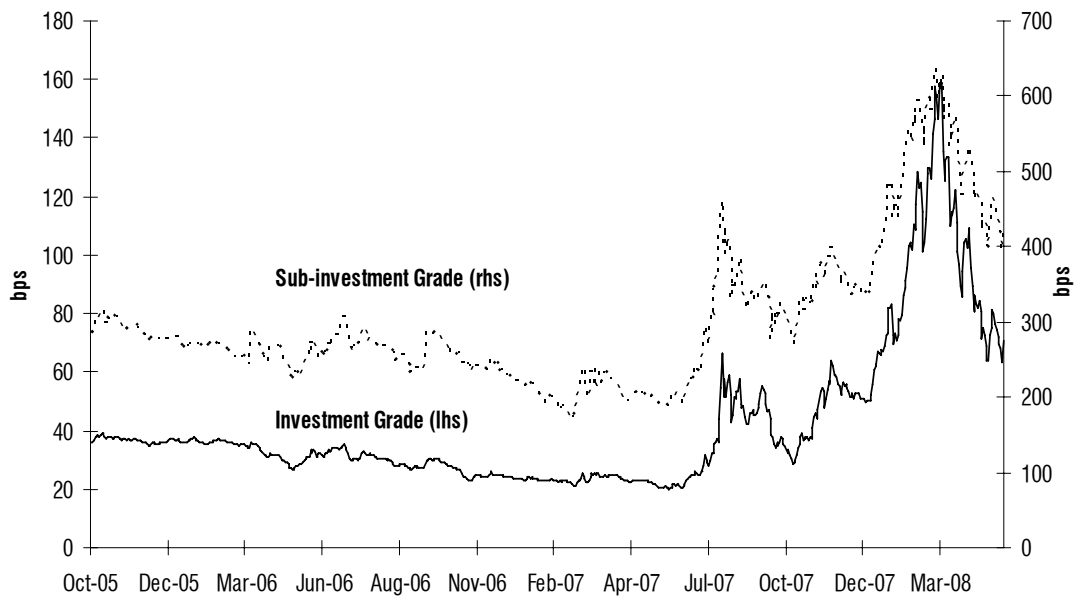
CDX (on-the-run) Indices: 5yr CDS Spreads – North America



Note: Investment Grade = CDX.NA.IG; Sub-investment Grade = CDX.NA.XO

Figure 8.4

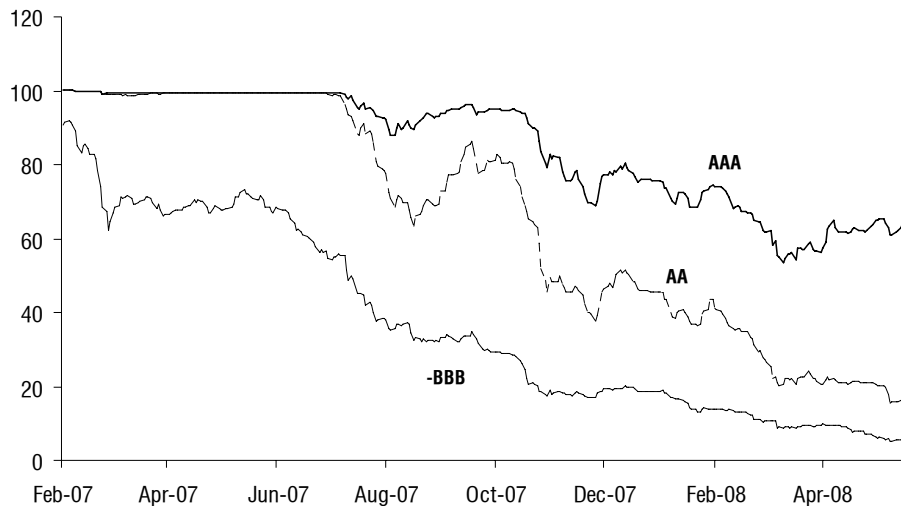
iTraxx (on-the-run) Indices: 5yr CDS Spreads – Europe



Note: Investment Grade = iTraxx Europe Main; Sub-investment Grade = iTraxx Europe Crossover (Xover)

Figure 8.5

2007-1 ABX.HE Indices: Performance of CDS on subprime MBS



Since mid-March, credit markets have rebounded strongly (Figures 8.1-8.5). Spreads have tightened across the board from mid-March highs, though being still above historical averages. CDS markets experienced the most aggressive tightening, whereas the tightening in spreads of corporate bonds and asset-backed securities (only the highest quality tranches) has been more modest. In particular, corporate bond spreads have closed 20-35% of the total credit crisis-induced widening, while CDS spreads have covered 55-80% of the total credit crisis-induced widening (Table 8.1). Surprisingly, even spreads on subprime mortgage ABS exhibited a slight improvement since mid-March. However, this holds only for the highest quality tranche (AAA), as all the others continued to deteriorate (Figure 8.5).

Table 8.1

Spreads¹ of corporate bonds and corporate CDS

	20/5/2008 level (bps)	mid-March high (bps)	29/6/2007 level (bps)	Relative change (%) from 29/6/2007 to mid-March peak	Reversal from mid-March to 20/5/2008 as % of crisis-induced widening
	(a)	(b)	(c)	(b-c)/c	a-b /(b-c)
Corporate bond spreads					
US: Investment Grade	213	249.9	97.6	156%	24%
US: Sub-investment Grade	618.1	780.8	306.6	155%	34%
EU: Investment Grade	157.7	183.8	49.2	274%	19%
EU: Sub-investment Grade	615.4	819.3	254.7	222%	36%
CDS spreads					
US: Investment Grade	97.8	193.7	40.1	382%	62%
US: Sub-investment Grade	236.0	445.4	181.3	146%	79%
EU: Investment Grade	70.9	159.1	25.1	534%	66%
EU: Sub-investment Grade	417.3	636.1	229.6	177%	54%

¹See notes in Figures 1-4

The rebound was initially catalyzed by the rescue of Bear Stearns, as confidence returned that the FED will bail out troubled financial institutions, and was subsequently supported by Q1 08 macroeconomic and earnings data that were eventually not quite as bad as feared. In addition, coordinated central bank activity to address funding pressures and the introduction of several measures to help bank liquidity such as the Primary Dealer Credit Facility, have significantly decreased the probability of a major financial firm collapse and hence eased worries for a disruption in the financial system.

A somewhat puzzling characteristic in the performance of credit markets since the beginning of the crisis last summer is that investment-grade sectors have underperformed speculative-grade sectors, mostly in the CDS markets. This appears at odds with previous bear credit markets, because speculative-grade firms are more vulnerable than investment-grade firms to an economic deterioration and high-yield debt has underperformed high-grade debt during previous periods of business cycle downturns or financial crises. The difference this time is that high-grade debt and especially derivatives based on it have been extensively used in recent years as building blocks for highly leveraged structured credit products. The construction of such credit products involved selling large amounts of protection in CDS markets. This was considered as safe, as investment-grade firms are historically characterized by low default rates. However, as the credit crisis unfolded, investors holding these products started incurring significant losses due to the sharp widening of spreads. The unwinding of these structured products, as investors feared further deterioration and rushed to contain their losses, involved entering offsetting positions, namely buying significant amounts of protection in CDS markets. This extensive buying of CDS protection pushed spreads sharply wider.

In our view, the first two factors, namely the systemic risk fears and the process of de-leveraging, have had so far the most significant impact on the performance of credit markets since the outbreak of the crisis last summer. Looking forward, we believe that the relief rally – fueled by the gradual evaporation of systemic fears – is coming to an end and that the balance of risks, driving credit market performance, is about to change. Specifically, it is likely that there will be a shift from systemic risk fears about the financial system to risks concerning the economic outlook, as worries that the credit crisis will spill over from the financial markets to real economy growth and supportive actions by the central banks reduce the probability of a further severe disruption in the financial system.

As long as the main risk in credit markets shifts from systemic to economic, high-yield debt is expected to underperform high-grade, since it is more sensitive to an economic deterioration and has overperformed so far. However, the ongoing process of deleveraging posts a significant source of uncertainty concerning the high-grade sector. Therefore the performance of the particular sector may differ from that experienced during previous credit bear markets.

Bank Lending

Financial institutions have been at the epicenter of the credit crisis. Banks' access to funding has become more expensive or even unavailable, as money and credit markets have experienced significant disruptions since last summer. In particular, interbank rates are still high, while several securitization markets are essentially shut down. In addition, asset write-downs and consolidation of SIVs and conduits have constrained banks' balance sheets, sending bank capital adequacy ratios to multi-year lows. The recapitalization of the financial institutions may have moved faster than expected but it is not sufficient yet to cover all losses and additionally, it is made at a higher cost with respect to the pre-crisis era. Global financial institutions have already reported approximately \$383 billion losses from the broader credit market crisis and have raised \$269 billion² of new capital. According to the International Monetary Fund (IMF), aggregate potential writedowns and losses will reach about \$945 billion³. More than half of the estimated losses (\$565 billion) come from residential loans (nonprime and prime) and securities, and the rest represent commercial real estate securities, as well as corporate and consumer loans. Hence, given the impairment of banks' access to funding, higher funding costs and the deterioration of their capital position, it is likely that banks will be unwilling or even unable to extend credit.

Indeed, the Fed's latest Senior Loan Officer Survey⁴, which measures the supply of, and demand for, bank loans to businesses and consumers, revealed an aggressive tightening in credit conditions for all loan categories, implying that bank lending contraction is under way. The net fraction of US commercial banks reporting tighter lending standards over the first quarter of 2008 was close to, or above, historical highs recorded in the 1990-1991 and 2001 recessions. Some 39% of commercial banks reported tightening their lending standards on consumer loans and about 55% reported tightening their lending standards on commercial & industrial loans (C&I), revealing a notable increase from the 21% and 32% Q4 07 numbers (Figure 8.6). The net fraction reporting tightening

² Bloomberg, Table of asset write-downs and credit losses vs. capital raised, as of May 22, 2008.

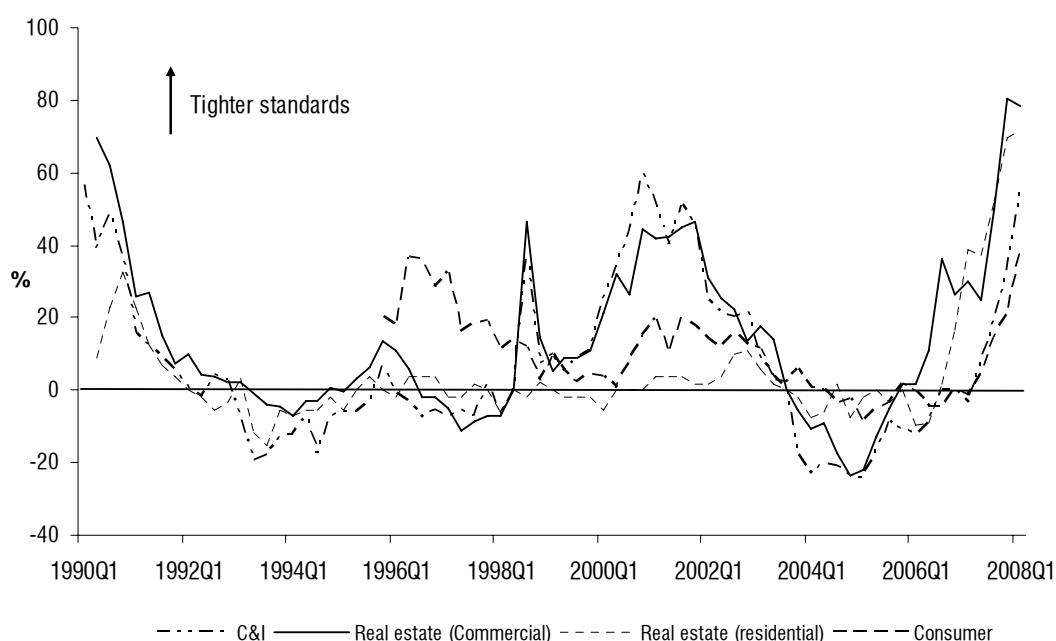
³ IMF, Global Financial stability Report, April 2008.

⁴ FED, The Senior Loan Officer Opinion Survey on Bank Lending Practices, April 2008

standards in residential and commercial real estate loans, 72% and 79% respectively, remained close to all-time highs reached in Q4 07. The notable increase in the consumer and C&I segments figures over the last quarter reveals that the tightening is not confined to the real estate loans, but is spreading to business and consumer loans as well. Respondents also reported the uncertain economic outlook, their banks' reduced risk tolerance and concerns about their banks' current or expected capital conditions as the main reasons for the aggressive tightening over the last quarters. In addition, banks are widening the spread of loan rates over their cost of funds. A record 71% of the respondents reported that they had increased spreads of C&I loan rates over the Q1 08 (Figure 8.7), on the back of the uncertainty regarding collateral valuations and counterparty risk.

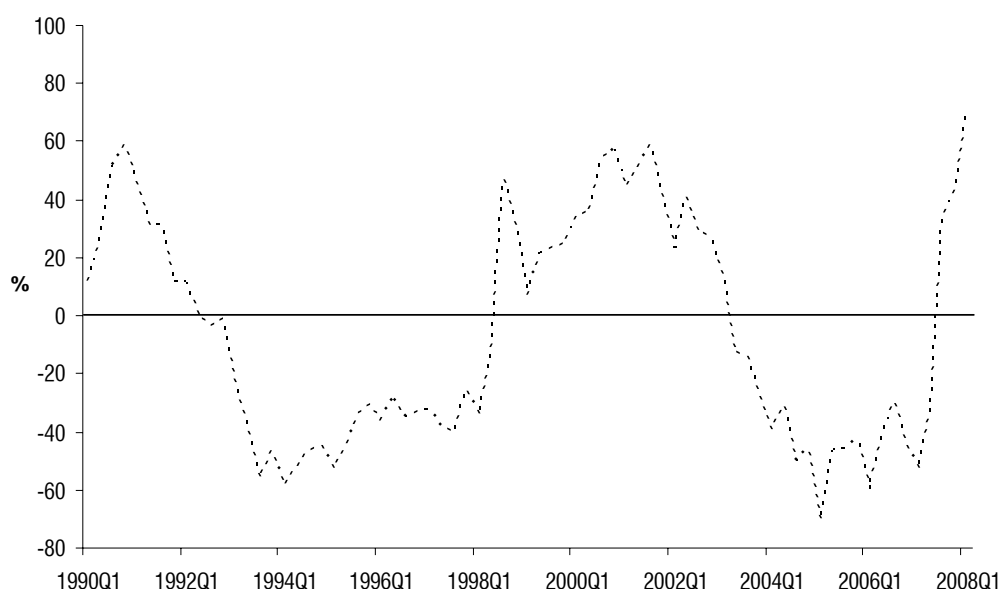
Figure 8.6

Net Percentage of US commercial banks tightening standards for loans



Source: FED

On the demand side, loan demand continued to fall over Q1 08 in terms of the net fraction of respondents reporting weaker loan demand, although at a slower pace compared to Q4 07. Surprisingly, demand growth for C&I loans turned from negative to neutral over the last three months. According to the survey, this stabilizing is attributed to the fact that many companies turned to banks to meet their financing needs, as market-based sources such as the commercial paper market became unattractive or unavailable.

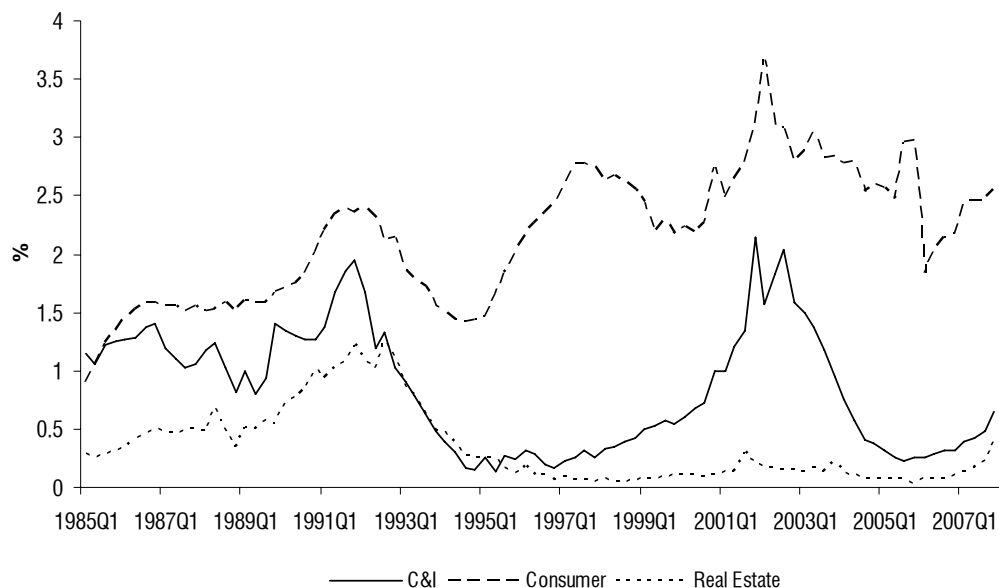
Figure 8.7**Net percentage of US commercial banks
increasing spreads of loan rates over banks' cost of funds**

Source: FED

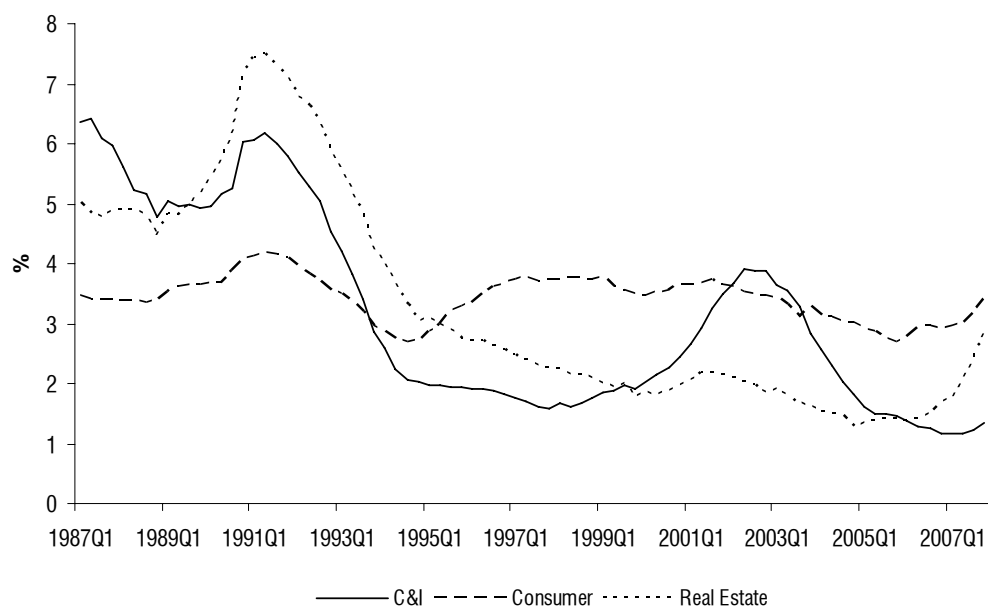
The financial turmoil has affected euro area banks as well. The latest ECB's Bank Lending Survey⁵ suggests that lending conditions are continuing to tighten across the board. In particular, banks reported a further increase in the net tightening of credit standards for loans to enterprises (49% in Q1 08 from 41% in Q4 07), for loans to households for house purchase (33% in Q1 08 from 21% in Q4 07) for consumer credit and other lending to households (19% in Q1 08 from 10% in Q4 07). Banks' risk perception regarding general economic activity and the cost of banks' funds and balance sheet constraints were the key factors cited for the credit tightening reported. Concerning demand for loans, banks reported that net demand for loans weakened further in the first quarter of 2008 compared to the last quarter of 2007 across all categories.

In summary, the latest US and EU surveys suggest that the bank credit tightening in response to the credit crisis is spreading from the real estate sector to the business and consumer sectors. This increases the risk of a slowdown in the previously strong rates of lending growth to households and enterprises.

⁵ ECB, The Euro Area Bank Lending Survey, April 2008

Figure 8.8**Charge-off rates on US loans (all commercial banks)**

Source: FED

Figure 8.9**Delinquency rates on US loans (all commercial banks)**

Source: FED

A potential credit contraction by banks will affect negatively economic growth, which is already slowing in major economies. A deceleration or contraction in economic activity is expected to hurt corporate and consumer credit, since a business cycle downturn is usually associated with

deteriorating corporate and household balance sheets and rising default rates. Indeed, charge-off⁶ and delinquency⁷ rates have picked up since the beginning of 2006 across the whole spectrum of loan types, namely business, consumer and real estate (Figures 8.8 and 8.9), resembling patterns observed during the previous two recessions in 1990 and 2001. High grade corporate default rates have also started to increase from multi-year lows, reaching 1.5% in March, which is still below the historical average of 5%. The unusual low figures of high-grade default rates, given the credit cycle turn, is attributed to the extremely loose lending standards in the last couple of years. Forecasts for 2008 range from 4% to 12.3%⁸.

⁶ Charge-offs, which are the value of loans removed from the books and charged against loss reserves, are measured net of recoveries as a % of average loans and annualized.

⁷ Delinquent loans are those past due 30 days or more and still accruing interest as well as those in nonaccrual status. They are measured as a % of end-of-period loans.

⁸ IMF, Global Financial Stability Report, April 2008.

9. Foreign Exchange

Dimitris Malliaropoulos

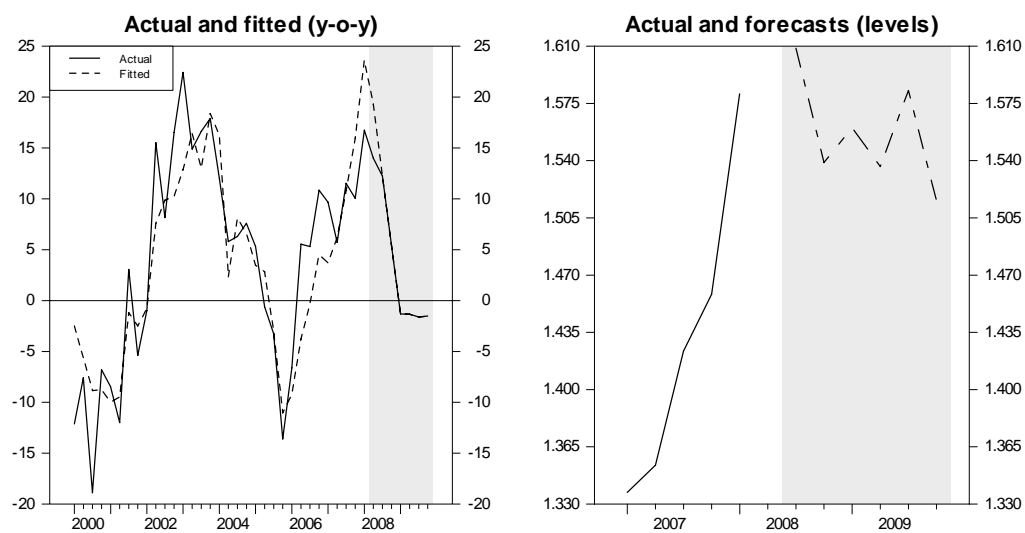
Our bearish view on the US dollar against the euro over the past twelve months has been confirmed so far as the dollar reached our target of 1.60 in March. Over the past two months, the US dollar has rebounded somewhat to 1.55 by mid-May as markets started to discount an end of the current Fed easing cycle. The bottoming of forward interest rate differentials and the improving trade balance position of the US were the main factors which provided support to the dollar.

Looking forward, we expect the EUR/USD to stabilize at levels between 1.50 and 1.60 for the second half of the year (Figure 9.1) as the two main forces acting on the currency have recently started to balance each other. First, the aggressive easing of the Fed is coming to an end, providing some support to the dollar as the market started to discount future Fed funds hikes to deal with the inflation problem of the US economy. Moreover, the euro may come under increased pressure as soon as the ECB drops its current hawkish rhetoric, as economic growth in the euro area starts to slow significantly in H2 and increasingly so in 2009. Second, the dollar decline of the past few years has raised the competitiveness of US exports, resulting in an improved US trade deficit. In fact, strong export growth was one of the main catalysts of economic growth during the past three quarters in the face of faltering domestic demand.

While we believe that the long period of dollar weakness is likely coming to an end, we do not share the view that the improvement of the US trade deficit will act as a catalyst for a sharp rebound of the dollar anytime soon. This is because, in our view, the improvement of the US trade deficit in 2008 will come mainly from the cyclical decline in imports as domestic demand (and, most importantly, personal consumption) slows down, rather than from an acceleration of exports, given an increasingly weaker global economy. Hence, it is difficult to make a case for a dollar rebound, as the improved trade deficit will only reflect increased weakness of the US economy relative to the rest of the world.

Figure 9.1

EUR - US Dollar exchange rate



*Source: Eurobank EFG model estimates

10. Commodities

Dimitris Malliaropoulos, Costas Lambrinoudakis

- Commodities have posted strong gains as an asset class so far in 2008, outperforming both stocks and bonds. As measured by the S&P GSCI index, commodity total returns are up 33.7% year-to-date⁹, while bonds returned 6.5% and stocks shed 4.5% over the same period.
- The spectacular performance of commodities is led by a 44.8% year-to-date increase in energy prices, driven by oil prices which continue to surge to ever-higher levels, followed by industrial and precious metal sectors, yielding 14.3% and 11.4% respectively. Although agricultural prices were essentially flat year-to-date, falling only by 0.2%, this masks a significant amount of volatility, as agricultural prices corrected in Q2 08, after a 9-month impressive rally.
- The buoyant performance of commodity markets in 2008 is attributed to the falling USD and the surprisingly robust fundamentals (strong developing world demand growth and supply disruptions), which sent the prices of many commodities to record highs.
- Recent trends in global commodity markets, namely tight fundamentals and rising prices amid an ongoing OECD growth slowdown, imply that the dominance of developing economies' consumers at the margin of commodity price formation is increasing. Hence, the combination of robust developing world demand and constrained supply will likely continue to support prices of many key-commodities.
- Respectively, the main threat for commodity prices would be a significant deceleration of growth in the developing economies, reducing demand for raw materials.

Commodities have posted strong gains as an asset class so far in 2008, outperforming both stocks and bonds. As measured by the S&P GSCI index, commodity total returns are up 33.7% year-to-date¹, while bonds returned 6.5% and stocks shed 4.5% over the same period (Figure 10.1 and Table 10.1). The spectacular performance of commodities is led by a 44.8% year-to-date increase in energy prices, driven by oil prices which continue to surge to ever-higher levels. Industrial and precious metal sectors have also seen double-digit returns this year, yielding 14.3% and 11.4% respectively (Table 10.1). Finally, although agricultural prices were essentially flat year-to-date, falling only by 0.2%, this masks a significant amount of volatility. In particular, prices in the agricultural sector soared in the first two months of the year – extending the rally that had started in the summer of 2007 – before correcting from all-time or multi-year highs reached in early March. Agricultural sub-index total returns increased by 27% from the beginning of the year to the early-March peak and by 76% since June 2007, when the rally had started.

⁹ As of May 23, 2008.

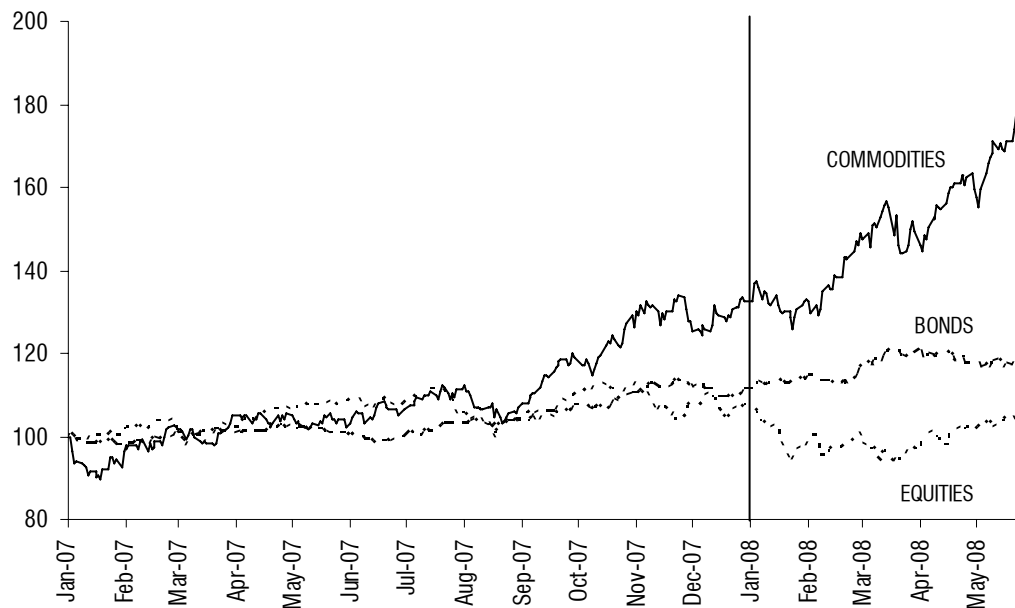
Table 10.1

Performance of total return indices

	23 May 2008 level	YTD	2007	2006	2005
Commodities					
S&P GSCI ALL	9978.76	33.7%	32.7%	-15.1%	25.6%
Energy	2778.67	44.8%	41.9%	-26.8%	31.2%
Industrial Metals	2098.89	14.3%	-5.6%	60.9%	36.3%
Precious Metals	1262.33	11.4%	27.9%	24.1%	18.6%
Agriculture	831.92	-0.2%	28.3%	13.3%	2.4%
Equities					
MSCI World (Developed Markets)	1517.41	-4.5%	7.1%	18.0%	7.6%
MSCI US	1309.58	-5.8%	4.1%	13.2%	3.8%
Bonds					
JP Morgan GBI Global (Developed Markets)	529.32	6.5%	11.2%	9.8%	-4.7%
JP Morgan GBI US	386.71	2.1%	9.5%	2.4%	2.4%

Figure 10.1

Performance of asset classes (rebased at 100 on 29/12/2006)



Note: Commodities = S&P GSCI TR, Bonds = JP Morgan GBI Global TR, Equities = MSCI World TR

The buoyant performance of commodity markets in 2008 is attributed to the falling USD and the surprisingly robust fundamentals, which sent the prices of many commodities to record highs. In our view, the most interesting aspect in the performance of commodity markets so far in 2008 is that prices in the two most growth-sensitive sectors – energy and industrial metals – have surprised to the upside, given the drag from the weakening demand in the slowing developed economies. This

was the result of significant supply disruptions owing to power generation shortages in commodity-producing countries and, most importantly, strong developing world demand, which held up overall demand despite the significant slowdown in the developed world, particularly in the United States. The power generation shortages, reflecting insufficient infrastructure in many commodity-producing countries, affected both the base metal sector, as mines had to suspend their operation and production was curtailed, and the energy sector, as demand for coal substitutes, such as oil and gas, increased.

Recent trends in global commodity markets, namely tight fundamentals and rising prices amid an ongoing OECD growth slowdown, imply that the dominance of developing economies' consumers at the margin of price formation is increasing. Hence, the combination of robust developing world demand and constrained supply will likely continue to support prices of many key-commodities. Respectively, the main threat for commodity prices would be a significant deceleration of growth in the developing economies, reducing demand for raw materials. However, the latest macroeconomic data from developing economies suggest the opposite.

(i) Oil

Oil prices have continued to rally to consecutive new all-time highs in Q1 08 and in Q2 08 so far, boosted by (a) short-term tight fundamentals and, most importantly, (b) increasing worries about the long-term supply environment. The latest new all-time high for WTI, the global benchmark, was registered on May 21st at \$133.17 a barrel.

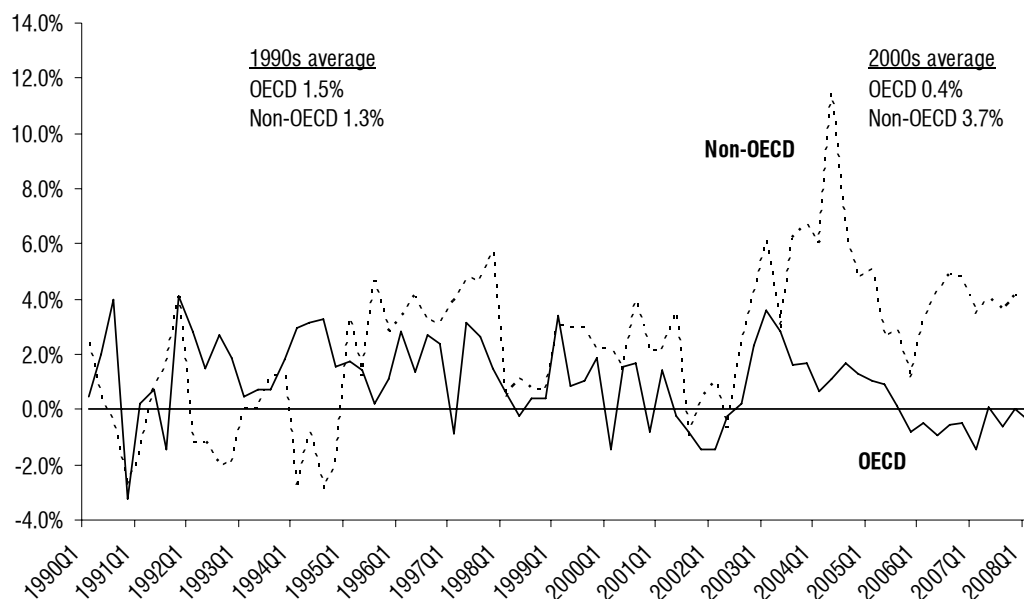
Global oil market fundamentals remained tight in 2008, owed to both demand and supply factors. Concerning demand, developing world demand has remained very strong, partially as consumers are shielded by subsidies, offsetting weakening demand in the United States and other developed countries (Figure 10.2). According to IEA's estimates, China's and India's demand for oil grew by 5.6% and 6.6% y-o-y in Q1 08, while US demand contracted by 3.5%. It is striking that demand growth rates in the two major Asian countries were higher than those in Q4 07. On the supply side, unplanned outages in Nigeria and the North Sea, the unwillingness of OPEC to increase production and the disappointing non-OPEC supply response to soaring oil prices were constructive to prices.

In our view, the most significant factor driving prices higher in 2008 has been the increased concerns over the long-term supply environment of the oil market. The disappointing non-OPEC

supply response (a 0.3% y-o-y contraction in Q1 08, while projections forecasted 1.4% growth), led by an unexpected decrease in Russian production for the first time in several years, have raised significant doubts over the ability of the group to increase production and provide a break on rising prices when needed. In addition, following the unwillingness of OPEC to raise production targets, the market has started to question OPEC's ability to further increase production. The growing concerns over the long-term supply-demand balance of the global oil market are reflected in the fact that prices at the back end of the oil forward curve have rallied to a larger extent than prices at the front end, contrary to similar rallies in oil prices in the course of the current bull market that started in 2002. In fact, the rally at the back end was so intense that almost the entire forward curve reverted to contango¹⁰.

Figure 10.2

Global oil demand growth (% change, y-o-y)



Source: International Energy Association

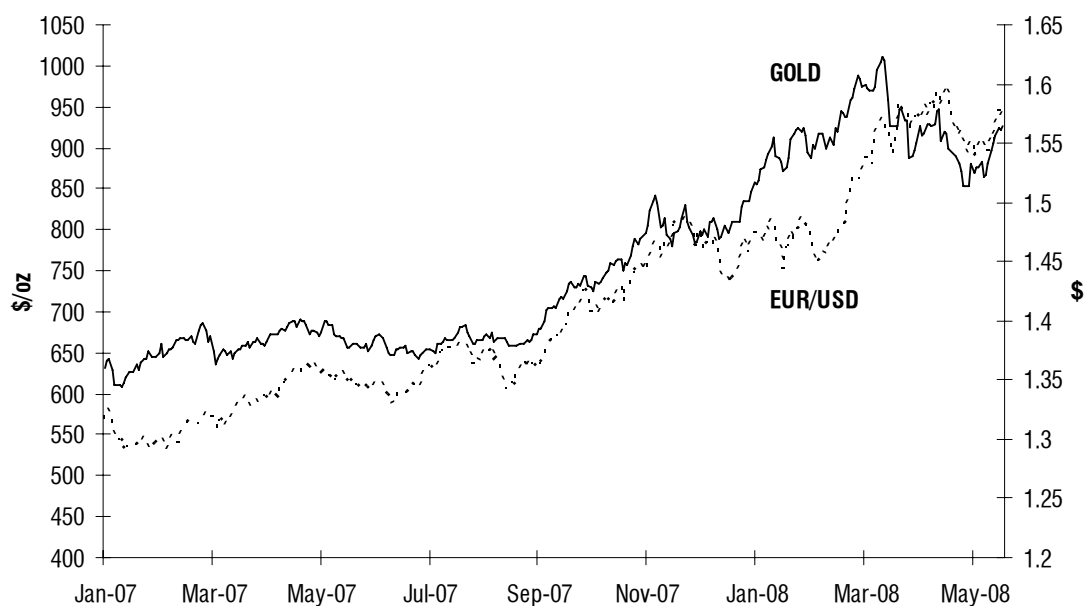
Looking forward, robust developing world demand, often subsidized, coupled with significant uncertainty surrounding supply growth, suggest that price risks are skewed to the upside in the mid to long-run, although a price correction from current record levels in the short-term cannot be ruled out.

¹⁰ *Contango* is a pricing situation in which futures prices get progressively higher as maturities get progressively longer, and hence the forward curve is upward sloping. *Backwardation* is a pricing situation in which futures prices get progressively lower as maturities get progressively longer, and hence the forward curve is downward sloping

(ii) Gold

In 2008, gold prices continued to track closely USD's exchange rate moves (Figure 10.3). In Q1 08, the falling US dollar provided support to gold prices, helping them breach for the first time the psychological limit of \$1000/oz and hit a new nominal all-time high of \$1011/oz on March 18th. After that, gold prices corrected, partly because the entire commodity complex corrected in late March, and mostly because the USD gained some strength against the other major currencies in April, driving investors' demand for gold and hence gold prices lower. In May, gold prices rebounded, as the dollar has resumed its downward trend.

Figure 10.3
Gold prices and USD exchange rate



Looking forward, risks concerning gold prices over the next months are skewed to the upside, as the dollar is expected to depreciate further against the other major currencies, while global inflation fears are growing. However, in the mid to long run the picture is mixed, as it is likely that the dollar will start strengthening when the US economy recovers (likely in 2009), affecting negatively gold prices.

(iii) Industrial metals

Industrial metals, being the most vulnerable commodity complex to an economic slowdown, surprised to the upside in 2008. Prices soared in the first two months of 2008, on the back of continuing robust demand from emerging economies and, more importantly, significant supply disruptions caused by severe power generation shortages that emerged in a series of metal-producing countries, such as South Africa, China and Chile. Power generation shortages curtailed metal production, as many mines had to suspend their operation, and caused prices to rally on the back of fears that supply will run out. The power crisis resulted from a combination of factors, including recent drought conditions, which reduced hydro-electric power availability, and other adverse weather conditions which blocked coal transportation and further damaged the power grid.

Base metal prices peaked in early March, after having increased by 30% since the beginning of 2008, as measured by the S&P GSCI sub-index. Since then, prices have continued to correct so far in Q2. Despite the recent price consolidation, total returns are still up by a notable 15% year-to-date.

Looking ahead, robust demand from emerging economies and, most importantly, a supply environment characterized by low inventories and strained production capacity will likely keep prices supported. Recent power shortages highlighted the problems that the supply side may face in the future, as many metal-producing countries belong to the development word economies, which are in critical need of infrastructure.

(iv) Agriculture

The agriculture sector posted strong returns in the first two months of 2008, driven mostly by soaring wheat and soybean prices. Prices peaked in mid-March and have corrected so far in Q2, weighed down by expectations of a substantial increase in 2008/09 wheat and soybean production, as skyrocketing prices prompted farmers to increase their planting of wheat and soybeans. However, in May soybean prices have stabilized, as projections for the soybean production level for the 2008/09 crop year were revised downwards. Corn prices have been steadily rising in 2008, boosted by rising oil prices and adverse weather conditions hindering planting in the US Midwest.

Looking ahead, prospects remain positive for agricultural prices, as all major price supportive dynamics remain in place. Food, feed and fuel demand, especially from emerging markets, remain

robust, while global inventories stand at multi-year lows. However, there is increased risk for a further decline in wheat prices over the next months, as expectations for increased production in 2008/09 crop year is expected to continue to weigh on prices.



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