# International economy 4

The consolidation of the prospects of an accentuated reduction in the growth of global economy, anticipated in the previous inflation report, was confirmed in the course of the quarter ended in February. Thus, the world's economic scenario over the recent months was marked by the intensification of the international financial crisis began as of mid-September. The crisis hit severely the domestic demand of the leading mature and emerging economies, impacting both the levels of employment and international trade flows. In this environment, the trajectories of deceleration or contraction in the activity level in the leading economies, evinced by the reduction, at the margin, of the world's economy GDP in the fourth quarter of 2008, is expected to persist throughout 2009.

Between mid-September and October 2008, the liquidity squeeze experienced by the leading international financial markets showed some accommodation, reflected in important improvements in the functioning of specific markets in the USA and in Western Europe. Notwithstanding, the deterioration of economic expansion perspectives in the largest developed economies, coupled with the effects of international credit restrictions on emerging markets, especially from Central and Eastern Europe, intensified the negative interaction between the economic real variables and the financial system.

In this scenario, the estimates of the financial sector's potential losses were revised upwards, thus reinforcing the general perception of a probable high systemic banking risk in major economies, at the same time that stimulated the rearrangement and reshaping of the monetary and fiscal policies in an attempt to fight against it.

## 4.1 Economic activity

As of the final months of 2008, the leading developed economies, in an environment of scarcity of credit channels

**Table 4.1 – Major developed countries**

GDP components and other indicators

% rate (anualised)

| | 2007 | | | 2008 | | | |
|---|---|---|---|---|---|---|---|
| | II | III | IV | I | II | III | IV |
| GDP | | | | | | | |
| United States | 4.8 | 4.8 | -0.2 | 0.9 | 2.8 | -0.5 | -6.2 |
| Euro Area | 1.8 | 2.4 | 1.7 | 2.8 | -1.0 | -1.0 | -5.8 |
| United Kingdon | 3.5 | 3.2 | 2.2 | 1.6 | -0.1 | -2.8 | -6.0 |
| Japan | -0.5 | 0.9 | 4.5 | 0.6 | -3.6 | -2.3 | -12.7 |
| Household consumption | | | | | | | |
| United States | 2.0 | 2.0 | 1.0 | 0.9 | 1.2 | - 3.8 | - 4.3 |
| Euro Area | 2.6 | 2.0 | 1.1 | 0.7 | -0.5 | 0.6 | -3.4 |
| United Kingdon | 4.3 | 5.6 | 0.9 | 3.8 | -1.0 | - 0.8 | - 2.8 |
| Japan | 1.6 | - 0.4 | 1.2 | 2.8 | - 2.8 | 1.2 | - 1.6 |
| Non-residencial investment | | | | | | | |
| United States | 10.3 | 8.7 | 3.4 | 2.4 | 2.5 | - 1.7 | - 21.1 |
| Euro Area[1/] | 0.7 | 3.8 | 4.0 | 5.0 | - 4.5 | - 2.4 | - 10.4 |
| United Kingdon[1/] | - 2.1 | 7.8 | 5.6 | -11.0 | -5.0 | - 13.8 | - 8.9 |
| Japan | - 13.6 | 5.7 | 9.1 | - 2.4 | - 8.9 | - 12.9 | - 19.6 |
| Residencial investment | | | | | | | |
| United States | - 11.5 | - 20.6 | - 27.0 | - 25.1 | - 13.3 | - 16.0 | - 22.2 |
| Euro Area[2/] | - 3.9 | - 0.4 | 3.6 | 10.8 | - 7.3 | - 5.4 | - 6.9 |
| United Kingdon | 4.6 | 1.9 | 4.1 | 4.1 | - 2.5 | - 1.4 | - 4.3 |
| Japan | - 11.1 | - 29.3 | - 36.4 | 19.7 | - 7.4 | 17.0 | 24.8 |
| Exports | | | | | | | |
| United States | 8.8 | 23.0 | 4.4 | 5.1 | 12.3 | 3.0 | - 23.6 |
| Euro Area | 4.3 | 8.1 | 3.0 | 7.6 | - 0.2 | 0.1 | - 26.0 |
| United Kingdon | 3.4 | 9.5 | - 1.0 | 2.9 | - 4.2 | 2.1 | - 20.2 |
| Japan | 8.7 | 10.0 | 12.6 | 12.6 | - 8.9 | 2.4 | - 45.0 |
| Imports | | | | | | | |
| United States | - 3.7 | 3.0 | - 2.3 | - 0.8 | - 7.3 | - 3.5 | - 16.0 |
| Euro Area | 3.2 | 8.6 | 0.5 | 5.7 | - 1.3 | 5.6 | - 20.3 |
| United Kingdon | - 1.9 | 20.9 | - 0.7 | -1.5 | - 4.4 | 1.1 | - 21.6 |
| Japan | 4.5 | - 1.2 | 1.6 | 6.1 | - 11.8 | 7.0 | 12.1 |
| Unemployment rate[3/] | | | | | | | |
| United States | 4.6 | 4.7 | 4.9 | 5.1 | 5.6 | 6.2 | 7.2 |
| Euro Area | 7.5 | 7.4 | 7.3 | 7.3 | 7.5 | 7.6 | 8.1 |
| United Kingdon | 5.4 | 5.3 | 5.2 | 5.2 | 5.4 | 5.8 | 6.3 |
| Japan | 3.7 | 4.0 | 3.7 | 3.8 | 4.1 | 4.0 | 4.3 |

Sources: BEA, Cabinet Office, Eurostat

1/ Includes residencial and public investment expenditures.

2/ Total construction expediture.

3/ End of the quarter rate.

and reduction in household wealth, registered a sharp contraction on the final demand for goods and services. This movement was evinced by both the sharp downturn of consumption and, particularly, private investment – a trend anticipated in the third quarter of 2008, as well as the reversal of the upward trajectory of real exports. Thus, in the quarter ended in December, GDP registered accentuated contractions in Japan, 12.7%; United Kingdom, 6%; USA, 6.2%; and Euro Area, 5.8%, with unfavorable developments for the job markets, especially in the USA, where the unemployment rat reached 8.1% in February, 0.9 p.p. higher than that registered at the end of 2008.

The reduction of domestic demand and the restrictive credit market conditions were fundamental for the contraction of imports of goods and services observed in developed economies; thus functioning as an important channel of transmission of the recessive trend towards other economies. In annualized terms, imports from the United Kingdom, the Euro Area and USA dropped, in the order, 21.6%, 20.3% and 16% in the quarter ended in December, as compared to that ended in September. In Japan, despite the annualized reduction of 1.2% in domestic demand, imports expanded at an annualized rate of 12%, in contrast with the 45% falloff in exports. In this scenario, the net exports accounted for 90% of GDP contraction registered in that country in the period under analysis.

Foreign sales of emerging countries – especially Asia, which are concentrated on durable goods and, as a consequence, are more vulnerable to the credit conditions and the economic cycle – also began to reflect the impacts of the worsened world's economic scenario. Seasonally adjusted South Korean exports registered annualized real reduction of 31.9% in the quarter ended in December, while the external sales from China and Taiwan registered respective variations of 4.4% and -19.7%, as compared to the quarter ended in December 2007. Exports from India, concentrated on the sales of services, expanded 11.4%, on the same basis of comparison.

Similarly to the foreign trade trajectory, the behavior of household consumption and gross fixed capital formation contributed decisively for the contraction and deceleration of the activity level in Asian countries, except in China. In this environment, South Korean GDP registered annualized reduction of 20.8% in the quarter ended in December, while, in terms of 12-month variations, Taiwan GDP fell by 8.4% and those related to China and India, revealing a significant deceleration, expanded, in the order, 6.8% and 4.5%, in December 2008.

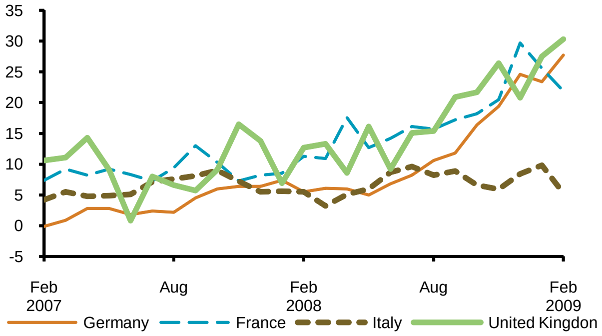
**Table 4.2 – Emerging economies**
GDP components and other indicators

% rate [(Q)/(Q-4)]

| | 2007 | | | 2008 | | | |
|---|---|---|---|---|---|---|---|
| | II | III | IV | I | II | III | IV |
| **GDP** | | | | | | | |
| South Koreia[1/] | 7.1 | 6.0 | 6.4 | 3.3 | 3.4 | 2.1 | -20.8 |
| China | 14.0 | 13.0 | 12.0 | 10.6 | 10.1 | 9.0 | 6.8 |
| India | 9.1 | 8.9 | 9.1 | 8.8 | 8.1 | 7.7 | 4.5 |
| Taiwan | 5.5 | 7.0 | 6.4 | 6.2 | 4.6 | -1.0 | -8.4 |
| **Household consumption** | | | | | | | |
| South Koreia[1/] | 3.7 | 5.1 | 3.2 | 1.76 | -0.6 | 0.2 | - 17.9 |
| China[2/] | 24.3 | 19.1 | 16.8 | 14.7 | 16.6 | 22.1 | 23.8 |
| India | 8.4 | 7.5 | 8.9 | 8.3 | 7.7 | 6.9 | 5.4 |
| Taiwan | 2.2 | 3.1 | 1.6 | 2.1 | 0.5 | - 2.1 | - 1.7 |
| **Gross Fixed Capital Formation** | | | | | | | |
| South Koreia[1/] | 0.2 | - 1.8 | 6.5 | -3.45 | 0.2 | 3.0 | -30.7 |
| China | 26.6 | 31.8 | 25.8 | 19.5 | 16.3 | 16.7 | 22.5 |
| India | 12.9 | 16.2 | 13.7 | 11.2 | 10.1 | 15.1 | 5.3 |
| Taiwan | 4.7 | 3.8 | - 0.8 | 3.7 | - 8.0 | - 11.8 | - 23.2 |
| **Exports** | | | | | | | |
| South Koreia[1/] | 16.2 | 5.2 | 30.9 | -2.74 | 17.6 | -4.5 | -31.9 |
| China | 23.8 | 24.8 | 18.3 | 17.2 | 17.1 | 18.3 | 4.4 |
| India | - 4.0 | - 4.8 | 6.1 | 10.1 | 23.2 | 10.6 | 11.4 |
| Taiwan | 5.2 | 11.6 | 12.9 | 12.7 | 9.9 | -0.6 | -19.8 |
| **Imports** | | | | | | | |
| South Koreia[1/] | 19.7 | - 7.1 | 40.4 | -8.73 | 18.2 | -6.66 | - 42.2 |
| China | 11.8 | 21.2 | 22.1 | 15.6 | 17.1 | 10.6 | -2.1 |
| India | - 0.7 | - 3.6 | 6.7 | 9.6 | 30.3 | 26.0 | 20.6 |
| Taiwan | 2.6 | 7.3 | 5.8 | 9.6 | 0.2 | -2.6 | -22.6 |
| **Unemployment rate[3/]** | | | | | | | |
| South Koreia[1/] | 3.3 | 3.2 | 3.1 | 3.1 | 3.2 | 3.2 | 3.3 |
| China[4/] | 4.1 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | nd |
| India | nd | nd | nd | nd | nd | nd | nd |
| Taiwan | 3.9 | 4.0 | 3.9 | 3.9 | 3.9 | 4.3 | 5.0 |

Source: Thomson Financial
1/ QoQ annual rate.
2/ Retail sales growth rate.
3/ End of the quarter rate.
4/ Urban unemployment

**Figure 4.1 – Uneasiness Indicator for inventory level**
European countries




Source: European Union

The scenario of reduced internal and external demand resulted in the accumulation of undesired stocks, both of final and intermediate products, thus leading to significant cutbacks in production as well as in the orders for intermediate goods and raw materials. Indicators of discomfort with the stock levels, evincing the persistent downturn of demand, remain, however, on a high level, suggesting the continuity of low levels of production and employment, affecting negatively the performance of world's GDP in the early months of 2009.

## 4.2 Monetary policy and inflation

The recent slowdown of the world economic activity favored the downward trajectory for the prices of energy and commodities, leading to significant reductions in inflation rates. In this environment, fears concerning the likelihood of a deflationary process were revived, particularly in mature economies and in China. Thus, the deepening of credit restrictions and the worsening of the crisis in the financial systems stimulated the central banks of mature and emerging economies to expand the accommodation posture of their monetary policies and inject a larger volume of resources in their financial systems.

Likewise, this same posture started being adopted in Latin America, where the central banks of Colombia, Chile, Mexico, Brazil and Peru inaugurated, during the quarter ended in February, a cycle of interest rate reduction. The same occurred in Hungary, where the central bank cut the basic interest rate by 25 b.p. Conversely, the central bank of Russia, pressured by the evolution of prices, exchange, balance of payments or swap terms, maintained the upward trajectory for interest rates. One should highlight that, in parallel to the relaxation of monetary policies, several countries, especially from the G3 and the United Kingdom, have been adopting expansionist fiscal policies in an attempt to mitigate the negative interaction between the economic activity and the deterioration of their financial systems.

In the USA, the behavior of prices, which was deemed benign up to the end of the quarter ended in September 208, started to indicate a progressive probability of a deflationary process. The increase in the output gap and the deceleration in the prices of foodstuffs and energy contributed to the -1.7% inflation rate registered in November, the greatest monthly negative rate in 60 years, and -8.4%, in annualized terms, in the quarter ended in January. Considering 12-month

**Figure 4.2 – Inventories/Sales ratio**
USA and Japan

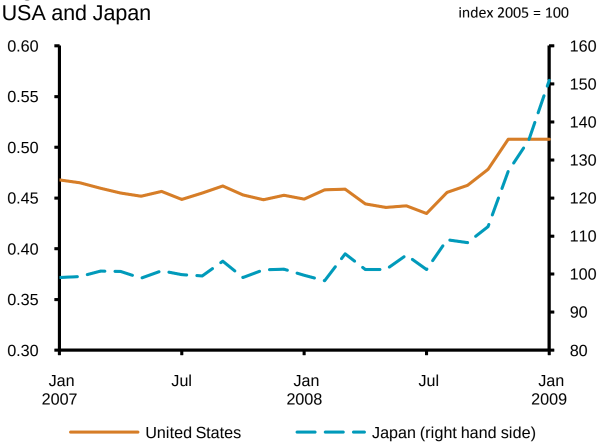



**Figure 4.3 – China PMI**
Final goods inventories PMI – Subindex

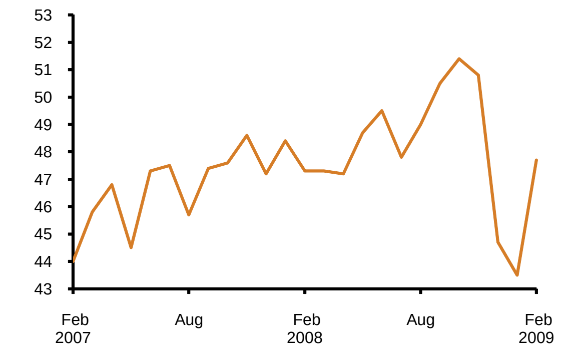
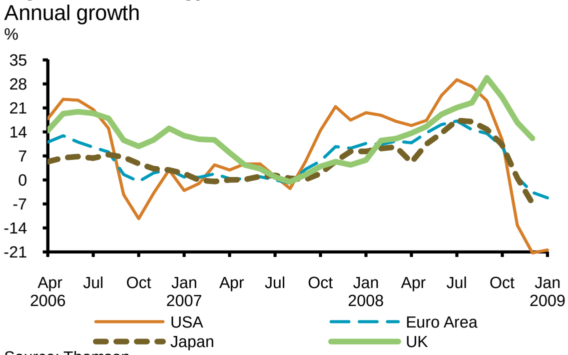
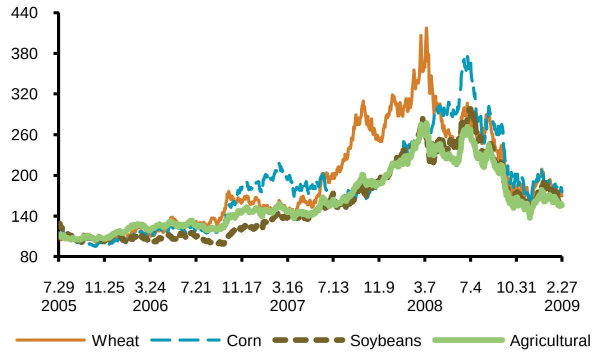



**Figure 4.4 – Energy inflation**
Annual growth




Source: Thomson

**Figure 4.5 – Agricultural Index**
12.31.2004 = 100




Source: Thomson

periods, inflation dropped from 5.6% in July 2008 – the highest rate in seventeen years, to 0.03% in January 2009.

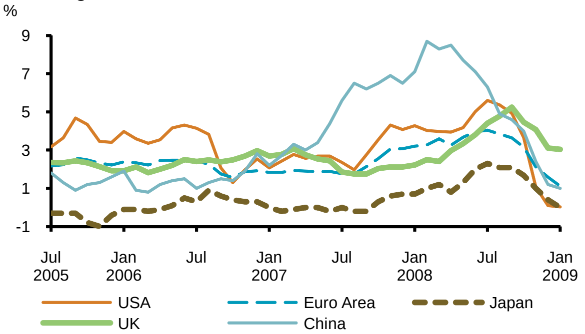
In view of this scenario and the need for adjusting the Fed funds target to the effective rate, the Fed carried out, in December, a new reduction in the target for basic interest rates, deciding for a fluctuation band, with limits of 0% and 0.25%. In addition, against the backdrop of the deteriorating credit scenario and restrictive financial markets, the Fed expanded one more time the scope of its liquidity assistance programs and increased the broadened its monetary policy, making a significant amount of resources available to the financial system.

With this goal, several measures were introduced or extended for regularizing the consumption, the real estate market, the financial market, and the offshore currencies market. With a view to reactivating consumption, the Fed created the Term Asset-Backed Securities Loan Facility (TALF), a program initially worth US$200 billion that was lately expanded to US$1 trillion by the new Treasury Financial Stabilization Plan. Through this program, the Fed will grant non-recourse loans to banks holding AAA papers collateralized by students' credits, auto loans credits, small entrepreneurs' credits, as well as loans granted by means of credit cards.

With the purpose of expanding liquidity to the mortgage market, the Fed started buying mortgage-backed securities (MBS) from the agencies Freddie Mac and Fannie Mae, a program that had already been announced in November 2008. In order to reestablish the normal functioning of financial markets and guarantee liquidity to primary dealers, the Fed also announced the extension, from April 30 to the end of October, of the maturity of all its liquidity assistance programs. In addition, with the objective of guaranteeing the offshore dollar supply, together with the central banks of Australia, Brazil, Canada, South Korea, Denmark, Europe, England, Japan, Mexico, Norway, New Zealand, Singapore, Sweden and Switzerland, the Fed extended, up to October 31, the currency swap lines.

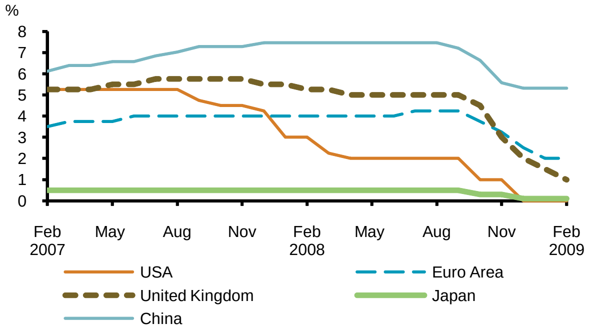
On February 10, in order to provide additional support to the economic activity, the North-American government announced the basic guidelines of a new Financial Stability Plan, based on three pillars: creation of the Financial Stability Trust (FST) fund to allocate resources to the financial institutions which, after a comprehensive analysis of their balance sheet and the prospects for stabilization of lending activities (stress test), prove to require the allocation of resources. Resources will be allocated through the Capital

**Figure 4.6 – Consumer inflation**
Annual growth



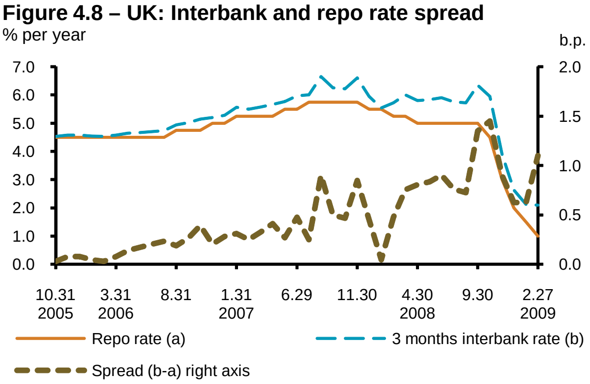

Source: BLS, Eurostat, Bloomberg and ONS

**Figure 4.7 – Official interest rates**
Annual rates



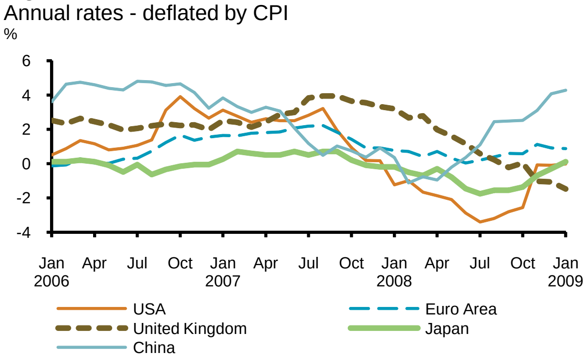

Sources: Fed, ECB, BoJ, Bank of England and The People`s Bank of China

**Figure 4.8 – UK: Interbank and repo rate spread**




Source: Thomson

**Figure 4.9 – Real interest rates**
Annual rates - deflated by CPI




Sources: Fed, BCE, BoJ, BoE, BPC, BLS, Eurostat, ONS and Bloomberg.

Assistance Program. Eligible institutions must demonstrate how they intend to utilize the resources so as to achieve a level of credit concession higher than that achieved without the government assistance:

- a coordinated action among the Fed, FDIC, the private sector, and the Treasury for the establishment of a Public-Private Investment Fund ("bad bank"), which should, at first, rely upon resources in the order of US$500 billion, but which may reach US$1 trillion; and
- joint Treasury/Fed action aiming to revitalize the secondary market of loans targeted to consumption and small entrepreneurs. Resources offered may reach US$1 trillion, partly represented by the Troubled Asset Relief Program (TARP).

Still in the framework of fiscal interventions, the Congress approved, on February 11, an incentive package worth US$787 billion, including direct government expenses, estimated at US$35 billion in 2009 and US$111 billion in 2010; and tax reductions and respective transfers of US$150 billion and US$289 billion in the years mentioned. One should highlight that, also in February, was approved the borrowers' rescue plan, worth US$75 billion, aimed to contain foreclosures and refinance mortgages.

In the United Kingdom, the financial and economic environment deteriorated rapidly with the worsening of the international crisis. This was clearly demonstrated by the increase in the interbank spread, the depreciation of the Sterling Pound, the economic activity slowdown, and higher unemployment rates. According to the Bank of England (BoE), this is a recessive economic scenario. Therefore, the monetary authority decided to reduce the basic interest rates from 5% p.y., in September 2008, to 0.5% p.y. at the beginning of March 2009, the lowest level ever recorded. The BoE is concerned with the probability that, over the medium term, annual inflation would stand below the target of 2%. Annual inflation dropped from 5.2% in September 2008 to 3% in January 2009, an evolution that may be explained by the more intense effect of the cutback in the prices of energy and foodstuffs, temporary reduction of the value added tax (VAT), and the expansion of idle capacity in comparison to the impact of the depreciation of the Pound Sterling.

In this framework, expectations in relation to the measures to be adopted by the BoE included the maintenance of the repo rate near to zero and the intensification of the policy aimed at increasing the supply of currency and credit. Thus, on January 19, the BoE announced the extension of maturities of rediscount operations, from 30 days up to one year, and established the Asset Purchase Facility (APF), a fund worth £50 billion financed through the issue of treasury notes with the goal to increase the liquidity to the corporate credit segment. In addition, the Monetary Policy Committee (MPC) announced the start of purchase of private assets with investment grade[1]. In March, backed by the APF and by Treasury authorization, the MPC announced the start of direct purchase, at an initial value of £75 billion, and for an initial term of three months, of the referred private corporate bonds, as well as of medium and long-term public bonds (gilts) on the secondary market. Purchases should be financed through the issue of banking reserves. In parallel to this, the Special Liquidity Scheme continues to operate, in spite of the closing of its access term. Through this program, the Treasury lent £185 billion in public securities, with maturities of up to 3 years, in exchange for MBS. Finally, with the goal of guaranteeing the supply of dollars in the English market, the BoE renewed, from the end of April up to the end of October 2009, the unlimited line of currency swap established with the Fed.

In the Euro Area, the annual variation of consumer price indices reached 1.1% in January 2009, the smallest rate since July 1999, with emphasis on the negative variations registered by transportation, 3.2%, and energy, 5.3%. In this scenario, in which inflation persists below the target of 2% and the economic activity continues to give signs of a sharp reduction, the European Central Bank (ECB) opted for additional cutbacks in the basic interest rate, by fixing it at 1.5% p.y. at the beginning of March 2009. In the context of financial markets needs, the ECB maintained the liquidity lines available during 2008 and, in relation to dollar supply in the European market; it renewed the unlimited line of swap currencies established with the Fed.

In Japan, the deepening of recession is confirmed by both the deterioration of the trade balance and the reduction of domestic absorption. In this context, the increase of the output gap and the strong cutback in the prices of commodities were responsible for the drop in the 12-month accumulated consumer price index from 2.3%, in July – the highest rate since the middle of the nineties – to 0% in January, a trajectory similar to that registered by the inflation core index.

In this environment, in which the Bank of Japan (BoJ) takes in to account the possibility of a deflationary process over

1/ Securities issued in the framework of the government credit guarantee program, corporate bonds, commercial papers, syndicated loans, and several asset-backed securities (ABS).

the medium term, the Japanese government introduced a new fiscal incentive package, involving ¥23 trillion, aimed at stimulating the household consumption and recapitalizing the financial system. The monetary authority decided for a new reduction in the target for the overnight call rate, from 0.3% to 0.1%, the second cutback observed over the last six years. Also, it resumed the practice of quantitative slackening, the major monetary policy instrument utilized from 2001 to 2006. In this sense, aiming to ensure minimum liquidity levels in the local markets, the BoJ:

- reduced from A to BBB- the minimum requirement for acceptance of corporate bonds as collaterals;
- announced the increase of direct purchase of government bonds (JGB) from ¥1.2 trillion to ¥1.4 trillion, including, 30-year bonds;
- started, with the purpose of reducing the deflationary pressures on the market of corporate bonds, the purchase of corporate bonds rated A or higher and maturity below or equal to one year;
- extended, until the end of September, the term for direct purchase of commercial papers and the list of eligible collaterals; and,
- in coordination with the Fed, renewed the unlimited dollar/yen currency swap up to October 2009.

In China, despite the passage of the Lunar New Year – a period in which is normal to occur pressures on food prices, the deflation process did not lose momentum. The 12-month accumulated inflation dropped to 1% in January, registering variations of 4.2% in the item foodstuffs and of -0.6% in the non-food segment, the first deflation in six years. In this scenario, in which global recession is reflected in significant loss in the balance of trade, hitting severely the level of local production, the government continued to stimulate measures to strengthen the private sector, while the People's Bank of China (PBC) decided for a new reduction in the basic interest rate, fixing it at 5.31% p.y. since December 2009.

## 4.3 International financial markets

Since the last inflation report, banks, stock brokerage companies, insurance companies, and the so-called government sponsored enterprises (GSE) announced additional losses and write-offs in the order of US$161 billion, accumulating US$1,116 billion since the beginning of 2007[2]. These same companies from the financial sector

**Table 4.3 – Bank writedowns & credit losses x capital raise**

US$ billion

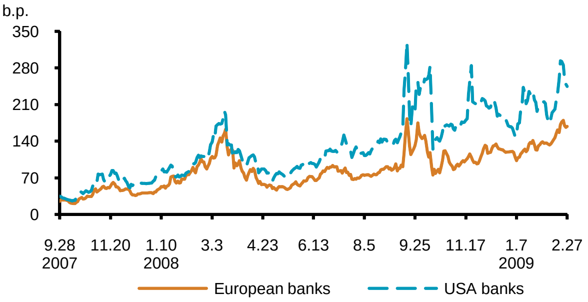
| | Accumulated since 2007 | | Accumulated since 10.1.08[1/] | |
|---|---|---|---|---|
| | Writedowns & credit losses | Capital raised | Writedowns & credit losses | Capital raised |
| Worldwide | 1116.3 | 996.0 | 200.7 | 534.8 |
| Banks | 824.5 | 860.1 | 172.2 | 461.3 |
| Insurers | 177.4 | 99.5 | 28.5 | 59.7 |
| GSEs [2/] | 114.4 | 36.4 | 0 | 13.8 |
| Americas | 762 | 558.0 | 148.7 | 312.1 |
| Banks | 494.7 | 448.1 | 125.6 | 245.1 |
| Insurers | 152.9 | 87.3 | 23.1 | 53.2 |
| GSEs [2/] | 114.4 | 22.6 | 0 | 13.8 |
| Europe | 323.9 | 355.8 | 51.4 | 179.6 |
| Banks | 300.9 | 343.7 | 46 | 173 |
| Insurers | 23 | 12.1 | 5.4 | 6.6 |
| Asia | 30.3 | 68.3 | 0.6 | 43.2 |
| Banks | 28.9 | 68.3 | 0.6 | 43.2 |
| Insurers | 1.4 | - | - | - |

Source: Bloomberg
1/ Updated on February 26th, 2009.
2/ Government Sponsored Enterprises – Fannie Mae and Freddie Mac.

2/ According to Bloomberg data of February 26, 2009.

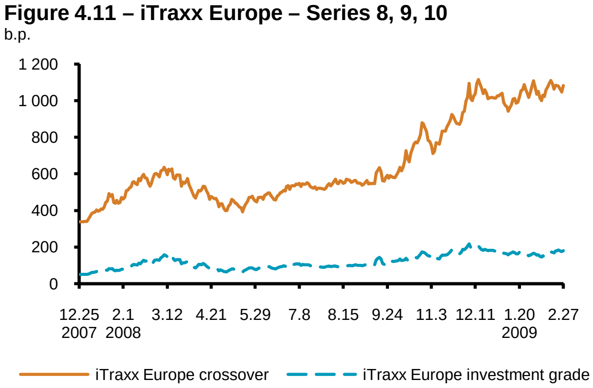
raised, during the same period, US$172 billion in new capital, adding up US$996 billion since the beginning of 2007. The banking segment, which also includes the stock brokerage companies, still concentrates 74% of the total losses and 86% of the raised capital.

**Figure 4.10 – 5 year CDS premiums of major banks1/**



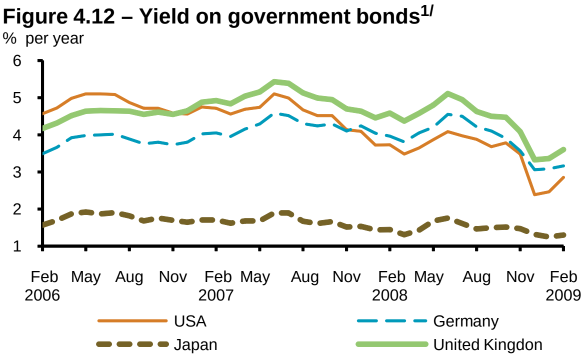

Source: Thomson
1/ Aritmethic average of 5-year CDS premiums for major European and USA banks. Since it's not a random sample, it may not reflect the behavior of the financial system as a whole.

**Figure 4.11 – iTraxx Europe – Series 8, 9, 10**




Source: Thomson

**Figure 4.12 – Yield on government bonds1/**




Source: Bloomberg
1/ Monthly average of nominal yields on 10-year bonds, up to February 27, 2009.

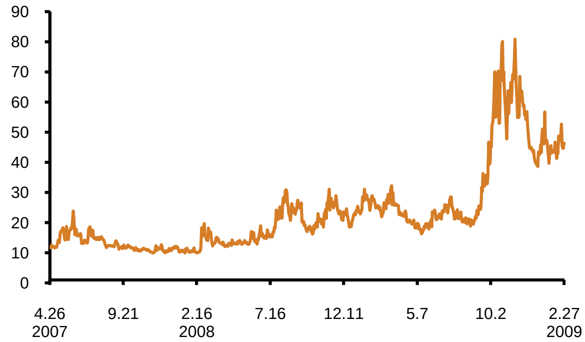
The persistent deterioration of global economic outlook continues to affect negatively the banks' financial conditions, especially in the USA and in Europe. The average CDS premiums – which measure the cost of guarantee against default – of five important North-American banks and of five important European banks kept on the upward trend initiated in mid-2007, moving, respectively, from 214 and 97 b.p., at the end of November, to 245 and 169 b.p. on February 27, with the maximum values close to those registered on September 17, after the bankruptcy of the Lehman Brothers bank.

The ongoing sharp contraction in the G3 economies, as well as the significant deceleration of emerging economies, led to the reduction in the demand for credit by the corporate segment. Meanwhile, the banks, in an attempt to prevent their balance sheets from further deterioration, have adopted a restrictive posture in their credit analyses. In Europe, the iTraxx Crossover, which represents the premium required to guarantee loans borrowed by high risk companies, moved from 890 b.p., on November 30, to 1,082 b.p., on February 27. The iTraxx IG, which represents the premium required by the companies classified as investment grade, climbed, in the same period, from 170 b.p. to 181 b.p.

The cutbacks in basic interest rates and the granting of credit by the government to the financial sector in the leading world's economies did not necessarily reflected in the reduction of the annual earnings of their respective long-term papers. These papers were partially affected by the deterioration of public finance, stimulating the BoE and the BoJ to carry out direct purchase of government papers and the Fed to announce, in the minute of its January meeting, the discussion of this practice. Between the end of November and the end of February, the annual earnings on long-term papers rose from 2.92% to 3.04% in the USA, while in Germany, in the United Kingdom and in Japan, it moved, in the order, from 3.26%, 3.77% and 3.40%, to 3.11%, 3.62%, and 1.28%.

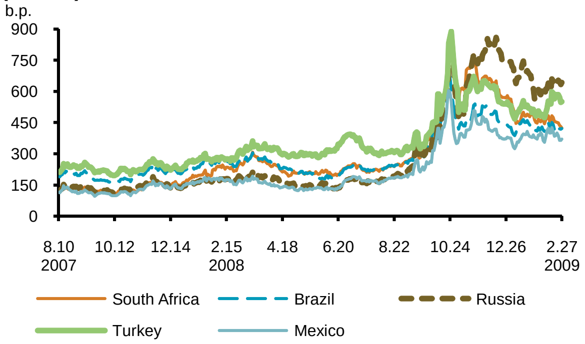
The Chicago Board Options Exchange (VIX), which measures the Standard & Poor's (S&P) short-term implicit volatility, although still signaling the prevalence of high wariness to risk on the North-American stock market, registered an average of 47.5 points in the quarter ended

**Figure 4.13 – VIX**



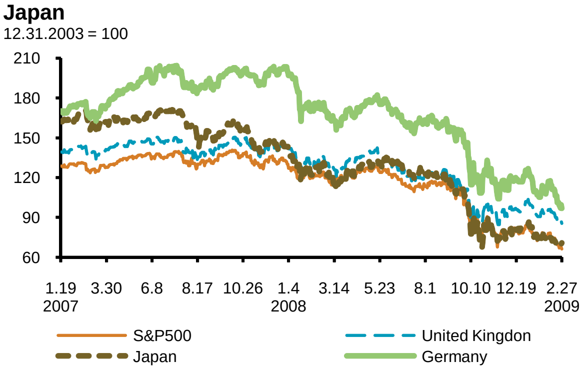

Source: Thomson

**Figure 4.14 – Emerging Markets Bond Index Plus (EMBI+) – Countries**



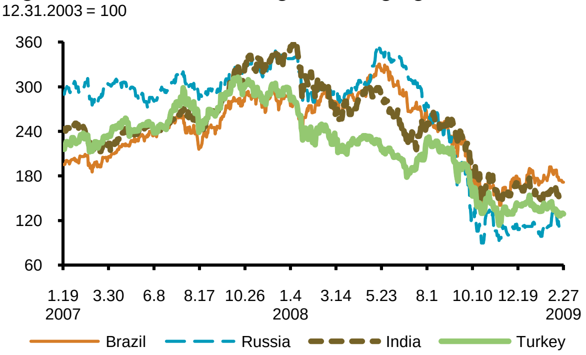

Source: Bloomberg

**Figure 4.15 – Stock exchanges: USA, Europe and Japan**




Source: Bloomberg

**Figure 4.16 – Stock exchanges: Emerging markets**




Source: Bloomberg

in February, against 50.9 points in the quarter ended in November. The indicator, after registering a fluctuation from 39 to 69 points in the quarter, reached 46.4 points at the end of February, against the record of 80.9 points observed on November 20, 2008.

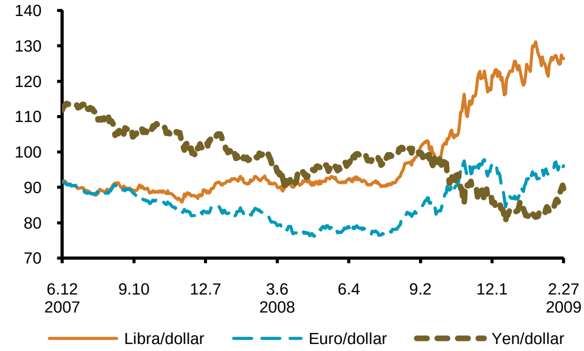
The Emerging Market Bond Index Plus (Embi+), a risk indicator associated to emerging markets, reached 639 points at the end of February, against 707 points at the end of November, an evolution associated to respective reductions of 195, 88, 72, 68, and 59 points registered in the South Africa, Russia, Mexico, Brazil, and Turkey indicators. Conversely, the Embi+ associated to Argentina and Venezuela expanded, in the order, 5 and 110 points, in the period.

The stock market indicators of mature economies continue to reflect the unfavorable corporate results and the financial sector losses. The USA's S&P500 reached, on February 27, the lowest value in more than twelve years, while that of Germany's DAX went back, on the same date, to the level of September 2004. The United Kingdom's FTSE 100 continues close to the minimum level of the last five years, registered in mid-November 2008. Meanwhile, Japan's Nikkei stands at a level slightly higher than that of 1982. In the quarter ended in February, the S&P500 and DAX fell by 18%, while the FTSE 100 and Nikkei accumulated losses of 11%.

Stock markets in the emerging economies registered an heterogeneous behavior in the quarter ended in February, expressed in respective gains of 4.3% and 6.2% in the Brazilian Ibovespa and Russian RTS, and respective losses of 2.2% and 6.6% in the Indian Sensex and Turkish XU100.

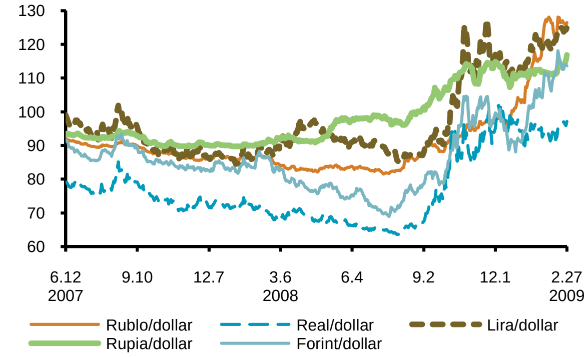
The worsening of the economic-financial crisis continues to benefit the strengthening of the US dollar. In the quarter ended in February, the dollar appreciated against the Pound, 7.4%; the Yen, 2.1%; and the Euro, 0.2%. It should be observed that, in the first two months of 2009, these variations reached, in the order, 1.9%, 7.6% and 10.3%. With regard to the Euro and the Yen, these movements reflected the negative performances of Euro Zone and Japan economies as well as the poor performance of their exporting sectors. The appreciation of the Pound reflects, to a large extent, the reduction of the differential between the basic interest rates adopted by the BoE and the Fed. The Pound, which, on January 23, reached the smallest value against the US dollar, accumulates, since June 2001, a depreciation of 32%, considering the record quotation of November 2007 and that of February 27.

**Figure 4.17 – Dollar exchange rates**
6.1. 2005 = 100



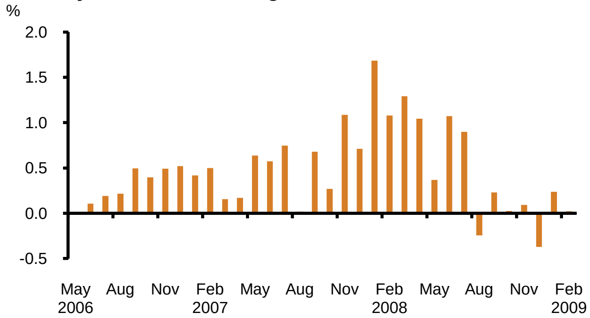

Source: Bloomberg

**Figure 4.18 – Emerging markets currencies**
6.1 2005 = 100



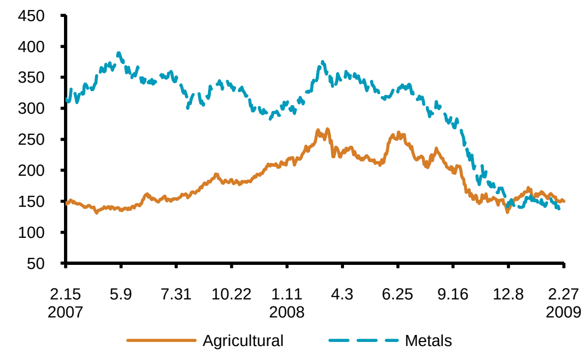

Source: Bloomberg

**Figure 4.19 – Renminbi/dollar exchange rate**
**Monthly valuation – average**[1/]
%




Fonte: Bloomberg
1/ Up to February 27, 2009.

**Figure 4.20 – Commodity price index**
Jan/2003 = 100




Source: S&P GSCI

The dollar appreciation trajectory was also observed vis-à-vis the emerging economies' currencies. In the quarter under analysis, the dollar appreciated 2.1%, 3.5%, 8.7%, 15.9%, and 28.6% against the Indian Rupee, the Real, the Turkish Lira, the Hungarian Forint, and the Russian Rublo. In Hungary, despite the agreement signed with the International Monetary Fund (IMF), high uncertainties about the evolution of domestic economy and the high costs associated to the foreign currency debt have put additional pressure on the local currency. In Russia, the interest rate raise was not enough to offset the adverse effects represented by the strong drop in the price of petroleum and the reduction in the country's international reserves.

In China, the renmimbi, which interrupted, since July 2008, the gradual appreciation trajectory against the US dollar, continues to register low volatility, reflected on the depreciation of 0.1% observed in the quarter ended in February.

## 4.4 Commodities

International quotations of commodities, interrupting the downward trajectory initiated in July, began to show relative stability as of December. According to the Commodity Research Bureau (CRB), the average index increased 4.3% between December 5, the smallest level in the quarter, and the end of February. On this date, the CRB registered respective reductions of 35.3% in relation to the maximum value, observed on July 2, 2008, and of 32.5% in comparison to the level observed at the end of February of that year.

With regard to the Standard & Poor's (S&P's) GSCI commodity index, in partnership with Goldman Sachs, the variation in the prices of commodities reached 5.7% between December 5 and the end of February, reflecting expansions of 2.5% and 13.5% in the segments of metallic and agricultural products.

The evolution in the prices of metallic commodities in the period, in an environment of relative accommodation of financial markets turbulence, was associated to the deceleration in the pace of growth in the stocks of most metals. According to the London Metal Exchange (LME), the quotations of copper and nickel increased by 11% and 6.5% in the period, as opposed to cutbacks observed in the quotations of aluminum, 10.8%, and zinc, 1.9%.

Insofar as the iron ore market is concerned, the relative recovery in the iron and steel activity in China, in the

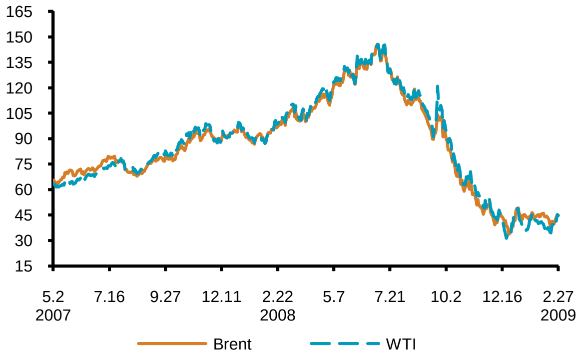
December-January period, and the less intense downturn of the USA and European Union steel production are expected to provide mining companies with some negotiation power, amidst a scenario of expected falloff in the price of iron ore in the contractual negotiations for 2009. In addition, the reduction of almost 80% in the cost of sea freight, as compared to the level of the first half of 2008, may attenuate the pressure for reduction in the price paid to producers.

The trajectory of quotations of agricultural commodities incorporates the recent cutoffs on the forecasts of world grain production, in line with the climatic adversities observed in Latin America. Considering the futures contracts for first delivery, generalized expansions in the quotations of major agricultural commodities were observed between December 5 and the end of February, with emphasis on wheat, 11.5%; maize, 19.5%; and soybean, 11.6%, at the Chicago Board of Trade; and coffee, 7.7%; and sugar, 36%, at the New York Intercontinental Exchange, the latter boosted by the harvest break in India.

### 4.4.1 Petroleum

In line with the deceleration observed in the activity level of the world economy, the average prices per barrel of WTI and Brent-type petroleum dropped from US$57.29 and US$53.24, respectively, on November 2008, to US$39.15 and US$43.24, in February. The price per barrel of Brent-type petroleum moved from US$51.73, at the end of November, to US$44.91 on February 27, for a 13.2% reduction. January and February International Energy Agency (IEA) estimates confirm the downward trend of world's consumption of petroleum for the first half of 2009. This trend, in a scenario of growing stocks in the importing countries, reinforces the expectation of a relative stability in the prices per barrel of petroleum over the next months.

**Figure 4.21 – Oil – Spot market**
US$ per barrel



Source: Bloomberg

## 4.5 Conclusion

Expectations in relation to the evolution of the world economy continue to depend on the improvement of entrepreneurs and household confidence as well as on the reestablishment of the credit channels. Even though some recent indicators point, as of December, to a relative deceleration in the pace of deterioration of industrial activities and services, a concrete evidence of stabilization of private demand for goods and services is not foreseen.

In this environment, in which the accumulation of undesired stocks imply cuts in the production of intermediate goods and raw materials, the maintenance of the level of commodity prices registered as of December is conditioned to the trajectory of global demand over the next months.

This process will depend on the impacts of credit restriction over the economy's real activity as well as on the way entrepreneurs and customers form their expectations. In 2009, an the governments and monetary authorities of leading mature and emerging economies may give an important contribution, since, in the framework of the perspectives for the deterioration of the current disinflation scenario, they have been intensifying the adoption of expansionist fiscal and monetary policies.