Inflation outlook

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This chapter of the *Inflation Report* presents the Monetary Policy Committee's (Copom) assessment of the behavior of the Brazilian economy and of the international scenario since the release of the previous *Report* in March 2011. The chapter also presents the analysis of the inflation prospects up to the second quarter of 2013 and of the Gross Domestic Product (GDP) growth up to the end of 2011. Inflation projections are presented in two major scenarios. The first scenario, called the baseline scenario, assumes that the Selic rate will remain unchanged at 12.25% per year over the forecasting horizon, the level defined by Copom at its most recent meeting on June 7 and 8, and the exchange rate will remain at R$1.60 per US dollar. The second scenario, named the market scenario, is based on the expected paths for the basic interest rate and for the exchange rate drawn from the survey carried out by the Central Bank's Investor Relations and Special Studies Department (Gerin) among independent analysts. For a third scenario, called alternative scenario, which assumes that the exchange rate remains unchanged over the relevant horizon at recently observed levels, and the target for the Selic rate based on data from the expectations survey carried out by Gerin, inflation projections are presented for the end of the years 2011 and 2012. It is important to stress that these scenarios are used only as support for monetary policy decisions and their assumptions should not be viewed as Copom forecasts of the future behavior of interest and exchange rates. The projections released here are based on the information set available up to the cutoff date of June 10, 2011.

The projections for inflation and of GDP growth released in this *Report* are not point estimates. They consist of probability intervals which embody the degree of uncertainty that was present at the above mentioned cutoff date. Inflation projections depend not only on assumptions about the interest and exchange rates, but also on a set of assumptions on the behavior of exogenous variables. The most likely set of assumptions considered by the Copom is used to build the scenarios to which the Committee attaches the greatest weight on making its interest rate decisions. On setting out these assumptions, the Copom seeks to foster transparency to the monetary policy, thereby contributing to effectiveness of policy decisions in controlling inflation, which is its primary objective.

6.1 Inflation determinants

Inflation, measured by the change in the Broad National Consumer Price Index (IPCA), after reaching 4.31% in 2009, moved to 5.91% in 2010. In the first five months of 2011, the IPCA index increased by 3.71%, 0.62 percentage points (p.p.) higher than in 2010. Thus, the twelve-month inflation reached 6.55% in May. The increase in inflation in the last twelve months was primarily determined by the change in market prices, but the behavior of administered and regulated prices have been less favorable than it was last year. In fact, regulated prices rose by 5.96% in the twelve months up to May, and market prices increased by 6.80%. Within the set of market prices, stands out the price change for non-tradable goods (7.53%) as well as the price change recorded for tradable goods (5.96%). Reflecting the dynamism of domestic demand, services sector inflation has consistently remained higher than that of market prices, reaching 8.54% in twelve months up to May (against 6.79% in the twelve-month period up to May 2010). In turn, the twelve-month change in regulated prices which had been contributing favorable to the inflation dynamics, has positioned above the center of the target since March 2011.

As with headline inflation, the three core inflation measures computed by the Central Bank show an increase in the twelve-month accumulated indices and are above the center of the target. The exclusion core measure (IPCA-EX), which had moved from 4.73% in December 2009 to 5.45% in December 2010, rose to 6.30% in May. Similarly, the change in the core by smoothed trimmed mean (IPCA-MS), which reached 4.38% in December 2009 and had advanced to 5.63% in December 2010, reached 5.86% in May. Additionally, inflation measured by the double weighted core measure (IPCA-DP), which reached 4.73% in December 2009 and had advanced to 5.62% in December 2010, reached 6.68% in May. In May, the monthly average of the three core measures was relatively stable, standing at 0.59%, against 0.60% in April.

The IPCA diffusion index stood at 64.84% in May 2011, up from 60.94% in May 2010. Although there has been decline in relation to January 2011's level (69.27%), the diffusion index remains high, which supports the hypothesis of acceleration in prices.

After a sharp reduction in 2009 (-1.43% versus 9.10% in 2008), broad inflation, measured by the General Price Index (IGP-DI), reached 11.30% in 2010. Between January and May, the IGP-DI has accumulated 3.08%, lower than the value (5.12%) for the same period in 2010. Over the past two months, the changes in the IGP-DI were 0.50% (April) and 0.01% (May). Despite the reduction in the margin, the twelve-month inflation remained at a high level, increasing by 10.84% in April, and 9.14% in May 2011. The strong acceleration in broad inflation is basically due to its main component, the Broad Producer Price Index (IPA-DI), whose twelve-month change was 13.28% in April and 10.30% in May. By the origin and for the same periods, prices of agricultural products changed by 25.51% and 21.28%, whereas prices for industrial products increased 9.34% and 6.85%. According to the Consumer Price Index (IPC-DI), another component of the IGP-DI, the twelve-month inflation reached 5.86% in March, 6.05% in April and 6.37% in May. The accumulated variation of the National Cost of Construction Index (INCC), had also an increase in the last two months after a slight fall in the first quarter of 2011. According to this index, twelve-month inflation, which was 7.10% in March, rose to 7.33% in April and 8.52% in May. As emphasized in previous *Reports*, the Committee evaluates that the effects of the wholesale prices on consumer price inflation will depend on current and prospective demand conditions, as well as on price setters' expectations for the future path of inflation.

The Index of Economic Activity of the Central Bank (IBC-Br) includes estimates for monthly production of the three sectors of the economy, as well as taxes on products and, therefore, it is an important coincident indicator of economic activity. In the first quarter of this year, the index displayed a growth rate of 1.3% over the previous quarter and 4.4% when compared to the first quarter of 2010. The twelve-month growth rate remained in the path of moderation, towards more sustainable levels over the long term, moving to 6.5% in March, from 7.8% in December. The Services Confidence Index (ICS), computed by the Getulio Vargas Foundation (FGV), fell at the margin by 1.4% in May, after an increase of 3.0% in April and a drop of 1.9% in March. In May, the level of this indicator was 0.1% higher than that observed in May 2010 and 0.7% higher than the average rate of 2010.

Industrial production fell 2.1% in April in the monthly comparison, after increasing 1.1% in March – the month in which industrial production hit a new record – and 1.9% in February, according to seasonally adjusted data by the Brazilian Institute of Geography and Statistics

(IBGE). The growth rate of the three-month moving average was 0.3% in the period from February to April, lower than the value measured from January to March (1.1%). Industrial production also showed a reduction in the twelve-month growth rate with an increase of 5.4% in April, against 6.9% in March and 8.7% in February. Comparing with December 2008, when industrial production registered its lowest level during the 2008/2009 crisis, the recovery up to April 2011 amounted to 25.1%, according to the seasonally adjusted series.

Among the industry categories of use, the production of capital goods posted the greatest accumulate change (6.2%) up to April 2001 in comparison with the same period of 2010. biggest change in the year to April (compared to the same period in 2010). In the same period, production of durable consumer goods grew by 2.3%, whereas the growth in the production of semi-durable and nondurable goods was 0.1%, and for intermediate goods was 1.1%. Considering the three-month moving average rate from February to April 2011, the production of capital goods was 1.0% higher than that registered between January and March; the intermediate goods grew 0.2%; and non-durable and semi-durable consumer goods 0.1%, on the same basis of comparison. In the case of consumer durables, there was a decrease of 2.4%. It is noteworthy that the production of capital goods increased 13.7% in the twelve months up to April, the greatest expansion among the categories of use. This is an evidence of the robust investment activity, a relevant factor for the sustainability of a new expansion cycle in the post-2008/2009 crisis period.

The rates of capacity utilization show some stability, at high levels, a result of the recent expansion of economic activity, which has not been entirely met by maturing investments. In fact, the seasonally adjusted Level of Utilization of Installed Capacity (Nuci) computed by FGV remained unchanged at 84.4% in May compared to April. According to data from the National Confederation of Industry (CNI), seasonally adjusted by the Central Bank of Brazil, the Nuci reached 82.1% in April, compared to 82.6% recorded in March. Regarding the twelve-month period up to January 2011, the absorption of capital goods stood at 20.9% and the production of inputs for civil construction rose by 7.9%. The seasonally adjusted inventory level indicator from the Manufacturing Industry Survey of FGV increased from 99.5 in March to 100.4 in April, but fell to 98.4 in May 2011. While for March and April, 4.2% of respondents expressed their inventory level as excessive, this fraction increased to 4.7% in May, considering the seasonally adjusted series.

Unlike industrial production, the volume of expanded retail sales still presents significant growth. In April, expanded retail sales grew by 11.8% relative to the same month last year, with the twelve-month rate reaching 10.2%. It is worth noting that this rate is considerably higher than the rate of expansion of industrial production (5.4% up to April), as well as the 6.5% growth (up to March) of the IBC-Br. Thus, there is evidence that the slowdown of industrial activity has not been matched in retail sales, although this asynchrony tends to change. The expansion of retail sales was reflected, for example, in the quantum of imports of durable goods which rose by 38.9% in the four months of 2011 relative to the same period of the previous year. For the next few quarters, retailing should continue to be bolstered by the growth of real wages, though at a slower pace, by government transfers, credit expansion, though at a moderate pace, and consumer confidence.

The Brazilian economy expanded 4.2% in the first quarter of 2011, compared to the same quarter last year, after growing 6.7% and 5.0% in the third and fourth quarters of 2010, on the same basis of comparison. According to seasonally adjusted IBGE, compared to the immediately previous quarter, GDP grew 1.3% in the first quarter of this year, after growing 0.4% and 0.8% in the third and fourth quarter of 2010, respectively. The behavior of the GDP suggests that the Brazilian economy is in a new expansion cycle, after the post-2008/2009 crisis recovery, at a pace more consistent with long term sustainable growth rate. From the production viewpoint, the services sector, which exhibit less volatile growth rates, increased 1.1% in the first quarter of 2011 compared to the previous quarter, the ninth consecutive expansion according to seasonally adjusted IBGE data. The agricultural production grew 3.3% against a drop of 0.7% in the fourth quarter of 2010, whereas the industrial production grew 2.2%, compared to a growth of 0.2% in the previous quarter.

From the viewpoint of aggregate demand, compared to the immediately previous quarter, and based on seasonally adjusted IBGE data, the Gross Fixed Capital Formation (GFCF) grew 1.2% in the first quarter of 2011, after growing 2.9% and 0.4 % in the last two quarters of 2010 respectively. Thus, the growth rate of the GFCF accumulated over the past four quarters amounted to 17.0%. Despite a low share in aggregate demand compared to consumption, the high growth rate of investment has contributed greatly to sustain the level of economic activity in the post-crisis period. Additionally, the prospect of new and large-scale investments, coordinated by the public sector, as in the case of the oil (pre-salt layer) and infrastructure sectors, favors the expectations of economic agents toward the maintenance of high growth rates of the GFCF. Household consumption – the most important component of aggregate demand – increased by 0.6% in the first quarter of 2011, after growing 1.7% and 2.3% in the last two quarters of 2010. Government consumption increased by 0.8% between January and March 2011, after contracting 0.1% and 0.3% in the same period of comparison. The external sector contributed negatively to GDP growth in the first quarter of 2011, with reduction of 1.6% in imports and 3.2% in exports. In short, domestic demand, driven by the expansion of credit, employment and income, has been the main driving force of activity, and should continue to evolve positively in the coming quarters, although at a slower pace.

Real retail sales grew 9.5% in the twelve months up to April, according to IBGE, after growing 9.5% and 10.4% in March and February, respectively, with an emphasis on increased sales for segments of "equipment, office supplies, computer and communication" (17.6%) and of "furniture and appliances" (17.1%). In turn, the expanded retail sales, which includes sectors more sensitive to credit conditions, also showed robust performance in the period, driven both by sales of "construction material", which grew by 14.5%, and by "cars and motorcycles, parts and accessories", which increased by 10.6%.

The labor market has played an important role in the current economic cycle. Unemployment, measured by the rate of unemployment in the six metropolitan areas covered by the monthly survey of the IBGE, declined in recent years and reached a record low of 6% in April, considering the seasonally adjusted series. Based on the non-seasonally adjusted series, the unemployment rate reached 6.4% – 0.9 p.p. lower than that of the same month of 2010, with reduction of the rate of unemployment in the six areas covered by the survey. Also according to the IBGE, the average real earnings usually earned by the employed population increased 1.8% in April 2011, with respect to the same month of 2010. The total number of persons working in the six regions reached 22.3 million in April 2011, against 21.8 million in April 2010. Thus, real payroll grew 4.3%, compared with the same month of 2010. Concerning the evolution of formal employment, after falling sharply at the end of 2008 and the beginning of 2009, job creation continues to expand. According to figures released by the Ministry of Labor and Employment (MTE), 1.97 million job positions were created between May 2010 and April 2011.

In addition to rising payrolls, the availability of credit to households – largely determined by macroeconomic stability and institutional reforms in recent years – was an important driving force in the growth in household consumption. After being adversely affected by the crisis of 2008/2009, credit conditions return to more favorable patterns, thus boosting lending volumes. The stock of credit to households with non-earmarked resources grew 18.2% in April 2011, compared to the same month of the previous year. In the same period, housing loans, whose operations are mainly based on earmarked resources, grew 48.1%. Despite this performance, there is some moderation in 2011 regarding credit to households, in part due to the adoption of macro prudential measures and the process of adjustment of the monetary conditions. In general, delinquency rates have remained at levels consistent with the phase of the cycle. In fact, the share in total outstanding credit with earmarked and non-earmarked funds of loans that is 90 or more days past due moved from 5.1% in April 2010 to 4.9% in April 2011.

The total volume of credit to corporations grew by 20.4% in April 2011, compared to the same month of 2010, considering non-earmarked and earmarked, and totaled R$957.3 billion. Credit expansion was boosted by loans and financing with resources from the Brazilian Development Bank (BNDES), which amounted to R$364.4 billion in April 2011, an increase of 23.3% over the same period in 2010. Regarding the capital market, the volume of primary issues of shares in the Securities and Exchange Commission (CVM) reached US$10.1 billion from January through May 2011 (R$11.3 billion in the same period in 2010). In turn, bond issuance after reaching R$10.3 billion from January through May 2010, reached only R$2 billion in the same period of 2011.

Regarding the external sector, the twelve-month trade balance has been rising since the previous *Report* and reached US$23.2 billion in May 2011. This performance includes exports of US$224.4 billion and imports of US$201.3 billion. These values are respectively 32.3% and 36.0% higher than those recorded in twelve months ending in May 2010. The recovery of external demand, although slow and asymmetric, has contributed to growth, albeit modest, of exports. In fact, the quantum of export recorded increased 7.7% in the twelve months up to April 2011, against the previous twelve months. In the same period, the average price of exports rose by 24.5%. In turn, the quantum of imports increased 28.0% during this period, in part reflecting the stength of domestic demand. The average price of imports rose by 7.1% in the twelve months up to April.

The twelve-month current account deficit increased from US$50.0 billion in March to US$48.9 billion in April 2011, equivalent to 2.25% of GDP. Remittances of profits and dividends have been an important component of this deficit, reaching US$33.0 billion in the same period. In turn, foreign direct investment amounted to US$63.7 billion in twelve months up to April 2011, equivalent to 2.93% of GDP, surpassing the external financing requirement.

In international financial markets, volatility and risk aversion have risen since the release of the previous *Report*, largely fueled by extraordinary levels of global liquidity and increasing uncertainty regarding the recovery of global activity. During this period, concerns about increased debt of countries and European banks and the possibility of slowdown in China have increased. In particular, there are also concerns about the effects of high oil prices on developed economies, especially on the activity, with an impasse between the major producing countries on the matching of supply and demand.

As far as the pace of global economic activity is concerned, the outlook of slower than expected recovery has strengthened, prevailing the view that there will be strong growth asymmetry across countries. The change of perception about the consolidation of the global recovery reflects significantly the view on the U.S. economy, where domestic demand appears to have been impacted by rising oil prices, adding to the effects of the weak labor market. The macroeconomic perspective for the Euro area remains asymmetric, with strong pace of expansion in Germany, for example, and decrease of activity in the peripheral countries. Regarding the monetary policy, the mature economies maintained the accommodative stance. Although headline inflation rates of consumer prices have increased in the G3 countries (United States, Euro area and Japan), the respective core inflation rates remained at moderate levels. In emerging markets, in a way, inflationary pressures have become widespread. Since the release of the last *Report*, it is worth noting the interest hikes promoted by central banks of Chile, China, Colombia, India, Peru and Russia, as well as the successive increases in reserve requirements in China.

Brent oil prices remained at level higher than US$110/barrel. Although the recent hike has been driven by the high political instability in some countries of the Middle east and, especially, in North Africa. Notice that this price acceleration was consistent with the strengthening of global demand, a perception that has change recently. It should be noted that the influence of international oil prices on domestic inflation is not transmitted exclusively through the local price of gasoline, but also via the production chain of the petrochemical industry, as well as the expectations channel. Among the remaining commodities, there was relative stability in high levels in international food prices since the release of the latest *Report*. The food price index, calculated by the Food and Agriculture Organization (FAO) of the United Nations, fell by 2.2% in the last three months against a rise of 37.1% in the twelve-month period up to May 2011. In turn, the commodity price index of the Commodity Research Bureau (CRB), based on twenty two commodities, after reaching new record on the second week of April, has shown some moderation in the margin. At the cutoff date of June 10, the index displayed reduction of 0.4% in the three-month period and 35.2% in the twelve-month period. The behavior of commodity and asset prices still embodies great uncertainty, reflecting the volatility in financial and currency markets.

The median of market expectations for the 2011 GDP growth rate declined since the release of the previous *Report*, from 4.10% at March 11, 2011 to 3.96% at June 10, 2011. During this period, the median expectation for inflation in 2011 moved from 5.82% to 6.19%, and in 2012, from 4.80% to 5.13%. The inflation expectation for the twelve months ahead dropped from 5.35% to 5.02%. Overall, since the release of the previous *Report*, there was a reduction in dispersion around the central tendency measures of inflation expectations for 2011 as illustrated in Figure 6.2, and an increase for 2012. The dispersion of inflation expectations for the twelve months ahead decreased in the period, with the standard deviation moving from 0.44% to 0.39%.

The international evidence on surveys of expectations, in general, suggests significant degree of information dispersion, both for consumers and professional market analysts. In fact, in the case of Brazil, the breakdown of market participants of the survey carried out by Gerin into three groups – banks, asset managers (AMs) and other institutions (nonfinancial companies, brokers, consulting companies and professional entities), reveals that agents have different views on the inflation outlook. Thus, for each group, time series of median inflation expectations were built, as illustrated in Figures 6.3 and 6.4, which suggest distinct behavior among segments, particularly in the case of the AMs group. At the cutoff date of June 10, the median inflation expectations for 2011 of banks, AMs

Figure 6.1 – Inflation target path and market expectations for twelve-month ahead inflation

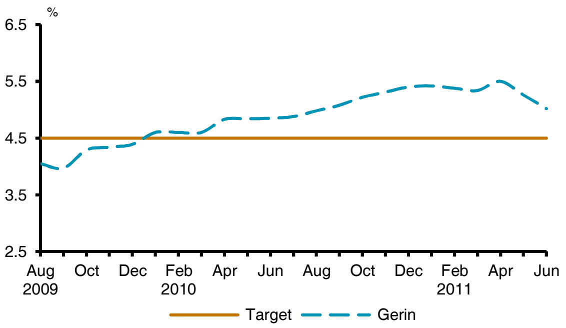


Figure 6.2 – Dispersion of inflation expectations for 2011

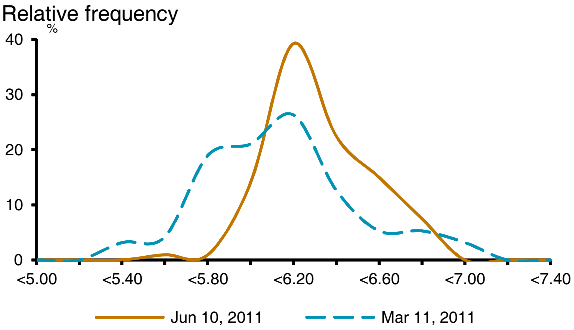


Figure 6.3 – Median market expectations by segment for 2011 IPCA-inflation

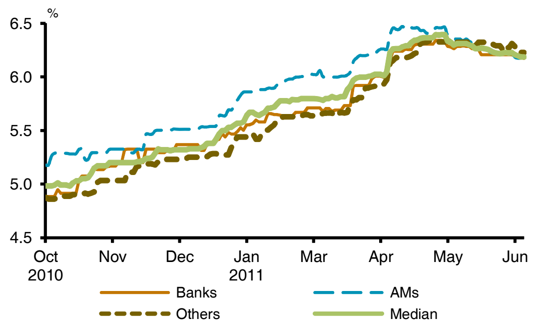
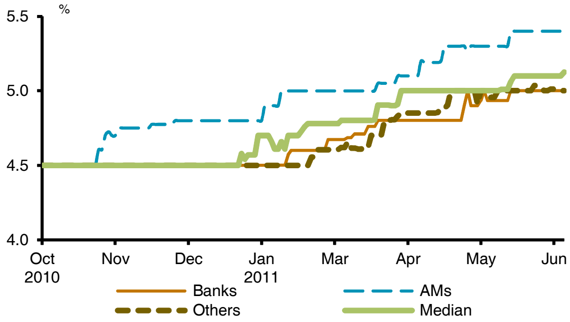


Figure 6.4 – Median market expectations by segment for 2012 IPCA-inflation



and other institutions are 6,17%, 6,17% and 6,23% respectively, against 5.68%, 6.00% and 5.67% in the previous *Report*. For 2012, these figures are 5.00%, 5.40% and 5.00%, respectively against 4.71%, 5.00% and 4.62% in March *Report*.

6.2 Main scenario: associated risks and monetary policy implementation

The projections used by the Copom are based on a set of assumptions about the behavior of the main macroeconomic variables. This set of assumptions, as well as the risks associated with them, make up the main prospective scenario based on which the Committee makes policy decisions. On the whole, the prospective scenario envisages, on the external side, the moderation in the pace of global economic activity and in the dynamics of commodity prices. On the domestic side, even though inflation projections still point to less favorable inflation dynamics than in the previous *Inflation Report*, the balance of risks to the prospective scenario is more favorable, with an evolving moderation in economic activity, albeit in an uncertain pace.

On the external front, the main inflationary risk still comes from commodity prices behavior. It is plausible to say this risk has lessened since the last *Report*, although the prospect for international commodity prices, including oil, remains shrouded in uncertainty. Indeed, lower optimism about the pace of growth of the global economy has contributed to break the surge in commodity prices and to reduce the possibility of a new round of significant price increases – such as the one experienced at the end of last year and earlier this year. Since the release of the last *Report*, there is a growing perception of reduced chances of new unconventional monetary measures abroad; and these measures have been seen as supporting elements for the recent surge in international commodity prices. Also, there is a growing concern about a possible deceleration of economic activity in China. On the other hand, during this time interval, risk aversion has increased in international financial markets, a development with downward repercussions for the price of domestic assets.

The Committee assesses that the increase in domestic wholesale prices and administered prices – both linked directly and indirectly to commodity prices – has influenced unfavorably the dynamics of consumer price inflation in the first five months of the year. In fact, evidence suggests a close relation between the acceleration in international commodity prices and in wholesale prices during the months near the end of 2010 and beginning of 2011. In particular, wholesale prices of agricultural products has accumulated 25.6% increase between August 2010 and March 2011, with repercussions on consumer price dynamics, as the food and beverages group increased 10.3% between September 2010 and May 2011. In fact, much of the direct effect of the commodity price increase has already been incorporated into consumer prices. From another perspective, consumer inflation dynamics has also been affected directly by the unusual concentration of administered prices readjustments in the first quarter of the year, with the effects showing signs of reversal in specific cases. This development, in conjunction with the wholesale agricultural products prices 3.8% retreat in the last two months, has been favorable for consumer price indexes. Despite the moderation in April and May, the twelve month increase in commodity prices and wholesale prices continues to be significant, and its remaining direct and indirect effects constitute risks for current consumer inflation.

The Committee evaluates that purchase of external goods tends to diminish domestic inflationary pressures through two channels. First, these products compete with goods that are produced domestically imposing greater discipline to the price setting process. Second, they reduce demand for domestic input markets, contributing to the weakening of cost pressures and, by consequence, of its pass-through to consumer prices. Additionally, in this respect, cost pressures not offset by efficiency gains contribute to depressing the competitiveness of domestic firms in the international goods and services markets, and in a global environment with historically high levels of spare capacity.

In relation to the global economy, the Committee´s baseline scenario continues to contemplate the hypothesis of an ongoing recovery of activity, still with marked asymmetry between economic blocs, and in a slower pace than anticipated on the occasion of the publication of the last *Report*. This assessment is supported, among other factors, by the interruption of relevant production chains due to the tragic events that occurred in Japan last March.

On the domestic front, the Committee evaluates the main risk is that the increase in inflation in the last moths – in the context of tight spare capacity in factor markets, most notably the labor market, and overall mismatches between supply and demand growth rates – be transmitted to the prospective scenario. This important risk factor could be worsened by mechanisms favoring inflation persistence.

Regarding the capital factor, after the pronounced drop caused by the 2008/2009 crisis, the investment rate – the share of GFCF in GDP – is recovering vigorously, although it remains below the levels observed before the 2008/2009 crisis. Considering flows accumulated in four quarters, the investment rate in the first quarter of 2011 reached 18.5%. The combination of less pronounced growth in aggregate demand with the rebound in investment has led to more stable readings of industrial capacity utilization levels – which had been going through a process of continuous growth during 2009 and the beginning of 2010.

The Committee assesses that an important source of risk for consumer price dynamics comes from wage dynamics. In fact, relevant wage negotiations will be concentrated in the second half of the year when twelve month inflation rate will be close to the upper limit of the tolerance band, in spite of indications it will fall from the fourth quarter on. Moreover, the projected minimum wage increases for the following years can have direct and indirect effects on consumer price dynamics.

Still on to the labor factor, the market is heated, notwithstanding incipient signs of moderation. The employment level has increased in a vigorous manner and led to the lowest unemployment rate readings since the beginning of the computation of the time series with the methodology that is currently employed (in March 2002). Real average earnings, after growing vigorously in 2010, show evidence of moderation, in part, due to higher inflation in the previous quarters. A crucial aspect in such situations is the possibility that the level of activity in the labor market leads to real wage increases at rates that are not compatible with productivity growth, something which has been occurring. In a strong demand environment, such wage increases tend to be passed on to consumer prices. In this respect, the theory, which is backed by international experience, establishes that wage moderation is a key element for guaranteeing a macroeconomic environment with price stability.

The Committee distinguishes relevant risks from the persistent mismatch between supply and demand growth rates, although there are sign it is diminishing. Despite the ongoing moderation, at an uncertain pace, of domestic demand expansion, the outlook for the evolution of domestic economic activity remains favorable, as suggested, indeed, by preliminary information about the pace of growth in the second quarter. This assessment is underpinned, among others, by the indications that the expansion of credit supply will persist – although at a more moderate pace after the recent adoption of macroprudential and conventional monetary policy measures – both for individuals and for corporations; by the fact that the confidence levels of consumers and entrepreneurs remain at historically high levels – in spite of moderation at the margin. The strength of the labor market, as reflected in record low unemployment rates and substantial wage growth, also offers noteworthy support for demand.

The Committee assesses that there are important mechanisms making the Brazilian inflation downward rigid. In particular, the presence of regular and almost automatic mechanisms of price adjustment, either *de jure* and/or *de facto*, has contributed to the persistence of inflationary pressures coming from the past. It is well known that the existence (even informally) of price indexation mechanisms reduces the sensitivity of inflation to demand conditions. Overall, indexation mechanisms tend to prevent the economy from disinflating during downturns and thus increase the “starting point” of the inflation rate during upturns, thus raising the inflation risks for the prospective scenario and increasing the costs of disinflation. In this context, indexation mechanisms pose risks to circumstances such as the present one, when twelve month inflation rate is above the target path.

The Committee considers that the recent behavior of wholesale prices, notably agricultural products, helps to cool inflationary pressures in the short term, but in a broader perspective, wholesale prices remain a risk factor for inflation in the medium term. The evidence points to the presence of time lags between the change in wholesale prices (producer prices) and their eventual pass-through to consumer prices – as detailed in the box “Pass-through of Wholesale Price Shocks to Retail”, in the March 2010 *Report*. Thus, presumably, a share of the effects of moderating producer prices in the months of April and May would still be transmitted to consumer prices. On the other hand, as the twelve-month variation in wholesale price inflation is still at high levels, this tends to negatively impact consumer inflation in the longer term, given the practice of indexing important consumer price changes to the general price indices. Nevertheless, as highlighted in previous *Reports*, the Committee evaluates the effects of the behavior of wholesale prices on consumers inflation will depend, among other factors, on current and prospective demand conditions, on the exposure of each sector to foreign and domestic competition, and on expectations of price setter regarding the future evolution of inflation.

Another source of concern lies in the evolution of inflation expectations. While acknowledging that there was some accommodation in the dynamics of inflation expectations for 2011 surveyed by Gerin, the Committee judges that there is a risk that high levels of monthly and twelve month inflation verified since the end of 2010 will continue to influence inflation expectations, making the dynamics more persistent.

Regarding fiscal policy, the Copom understands that the generation of primary surpluses in line with the assumptions considered for inflation projections, besides contributing to the reduction in the mismatches between supply and demand growth rates, will strengthen the reduction trend in the public debt-to-GPD ratio. The Copom reaffirms that the inflation main scenario considers the materialization of the trajectories regarding fiscal variables. In this sense, significant decisions have been taken and implemented by the government to restrain expenditure, which support the vision of an ongoing fiscal consolidation process.

The dynamics of the credit market also deserves attention, be it for its potential impact on aggregate demand and, as a consequence, on inflation, or for the macroprudential risks that it may represent. The dynamism of the credit market in Brazil has been intense and has meant a persistent growth in the credit-to-GDP ratio, which, among other factors, contributes to the amplification of the power of monetary policy in Brazil. On the other hand, the fragility in some mature economies, combined with favorable perspectives for the Brazilian economy, has determined an inflow of foreign resources, part of which has been going to the credit market. In this sense, the excess of external inflows may weak the credit channel, smooth its contribution to the aggregate demand moderation, as well as cause distortions in the price of domestic assets.

The Copom understands that the moderation in the expansion of the credit market constitutes an important element to the materialization of its main scenario. In this connection, it considers opportune the introduction of initiatives with the aim of moderating the concession of subsidies regarding the credit operations. Compared to the situation that prevailed at the time of the last *Report*, the view that prevails is that there has been a increase in the probability of the hypothesis of moderation in the expansion of the credit market in general. Incidentally, available information showed significant changes not only in prices and terms, but also in quantities transacted in the credit market since the introduction of macroprudential initiatives.

In short, the Copom recognizes an economic environment in which an above-than-usual uncertainty level prevails, and identifies risks to the materialization of a scenario where inflation promptly converges to the midpoint target. Since the last *Report*, at the external outlook, evidence shows moderation in the recovery process experienced by the G3 economies and, in another perspective, still reveals ambiguous influence on the behavior of domestic inflation. Regarding the domestic outlook, macroprudential actions and, mainly, conventional monetary policy actions recently implemented will still have their effects incorporated to price dynamics. Although growing uncertainties that surround the global outlook and, at a minor magnitude, the domestic one, do not allow the clear identification of the degree of persistence of recent inflationary pressures, the Committee evaluates that the inflation prospective scenario shows more favorable signs.

In this context, the Copom decided, by five votes in favor, against two, for the increase of the Selic rate by 0.50 p.p., raising the policy rate from 11.75% to 12.00%; and, unanimously, from 12.00% to 12.25%, without bias, in the April and June meeting, respectively. Considering the balance of risks for the inflation, the pace still uncertain of the domestic activity moderation, as well as the complexity that affects the international environment, the Committee understands that the implementation of adjustments in monetary conditions by a sufficiently prolonged period remains the most adequate strategy to guarantee the inflation convergence to the target in 2012.

Domestic demand is robust, largely due to the effects of stimulus factors, such as income growth and credit expansion. Moreover, although recent initiatives point to constraint in public sector expenditures, fiscal and credit incentives provided to the economy in the last quarters shall still contribute for the activity expansion and, hence, for the maintenance of the idleness level of factors at low levels. The effects of these stimuli, however, are counterbalanced by the effects of the reversal of initiatives taken during the recent 2008/09 financial crisis, by the recent macroprudential actions and, mainly, by conventional monetary policy actions taken this year. These elements and the fiscal and quasi fiscal developments are an important part of the context in which future monetary policy decisions will be taken, aiming to ensure the timely convergence of inflation to the target path.

6.3 Inflation forecasts

According to traditionally adopted procedures, and taking into account the available information up to the cutoff date of June 10, 2011, the baseline scenario assumes that the exchange rate remains unchanged over the forecast horizon at R$1.60/US$, and the target for the Selic rate stays at 12.25% p.a. – the level set by the June Copom meeting – against R$1.65/US$ and 11.75% p.a. considered in the March 2011 *Inflation Report*. The projection for the change in the set of regulated and monitored prices in 2011, in the baseline scenario, is of 4.6%, against 4.0% considered in the last *Report*. This projection is based on the hypotheses, for the accumulated over 2011, of an increase of 4.0% in prices for gasoline; stable prices for bottled gas; and increases of 2.8% for electricity rates, and of 2.9% for fixed telephone rates. Regarding items for which more information is available, price changes were estimated individually. For the remaining items, projections are based on models of endogenous determination of regulated prices, which consider seasonal components, exchange rate variations, market price inflation and General Price Index (IGP) inflation, among others. According to these models, the projection of regulated and administered prices for 2012 is of 4.3%, against 4.4% considered in the March 2011 *Report*; and for 2013, the projection is of 4.4%, against 4.3% considered in the last *Report*.

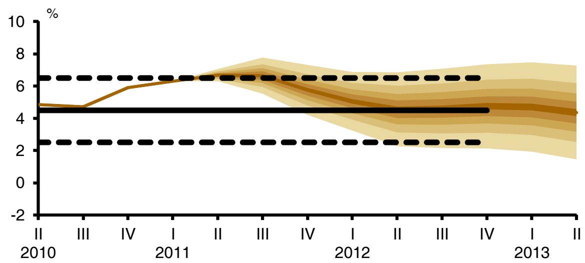
The market scenario, in its turn, incorporates data from the expectations survey carried out by Gerin with a representative group of institutions up to the cutoff date. In this scenario, average exchange rate expectations decreased in comparison to the values released in the March 2011 *Inflation Report*. For the last quarter of 2011, they moved from R$1.70/US$ to R$1.60/US$, and for the last quarter of 2012, from R$1.75/US$ to R$1.69/US$. For the second quarter of 2013, survey expectations project an average exchange rate of R$1.72/US$. In what regards the evolution of the average Selic rate, the expectations for 2012 increased in comparison to the values presented in the last *Report*. For the last quarter of 2011, it stayed in 12.50% p.a., whereas for the last quarter of 2012, it moved from 11.33% p.a. to 12.42% p.a. For the second quarter of 2013, survey expectations project an average Selic rate of 11.73% p.a. This trajectory of the Selic rate is consistent with twelve-month pre-DI swap spreads of 72 b.p. and -28 b.p. with respect to the current target for the Selic rate (12.25% p.a.), in the last quarter of 2011 and 2012, respectively. Additionally, the market scenario assumes changes of 4.6% and 4.5% for the group of regulated and administered prices in 2011 and 2012 respectively, and of 4.5% in 2013.

With regard to fiscal policy, the projections presented in this *Report* are based on the working hypothesis of accomplishment of the primary surplus target of R$117.9 billion (or roughly 2.9% of GDP), without adjustments, in 2011, according to the parameters of the Budget Guidelines Law – LDO 2011. Moreover, the working hypothesis of accomplishment of the primary surplus target of R$139.8 billion (or roughly 3.1% of GDP) is considered for 2012, according to the parameters of the Budget Guidelines Law Project – PLDO 2012, including what refers to the projected minimum wage increase.

It is worth to mention that the projections presented in this *Report* incorporated the estimated effects of the reserve requirement measures announced in December 2010.

Based on the above assumptions and using the information set until the cutoff date (June 10, 2011), projections were constructed for the IPCA inflation accumulated over four quarters, consistent with the interest and exchange rate paths of the baseline and market scenarios.

Figure 6.5 – Projected IPCA-inflation with interest rate constant at 12.25% p.a.
Inflation fan chart



Note: accumulated inflation in 12 months (% p.a.).

Table 6.1 – Projected IPCA-inflation with interest rate constant at 12.25% p.a.
(Baseline scenario)

Year	Q	Probability Interval 50%	30%	10%		30%	50%	Central projection
2011	2	6.5	6.6	6.7	6.7	6.8	6.8	6.7
2011	3	6.2	6.4	6.6	6.7	6.9	7.1	6.7
2011	4	5.1	5.4	5.6	5.9	6.1	6.4	5.8
2012	1	4.3	4.6	4.9	5.2	5.5	5.8	5.1
2012	2	3.6	4.0	4.4	4.7	5.1	5.5	4.6
2012	3	3.6	4.0	4.4	4.8	5.2	5.6	4.6
2012	4	3.7	4.1	4.6	4.9	5.4	5.8	4.8
2013	1	3.6	4.1	4.5	4.9	5.4	5.8	4.7
2013	2	3.2	3.7	4.1	4.6	5.0	5.5	4.4

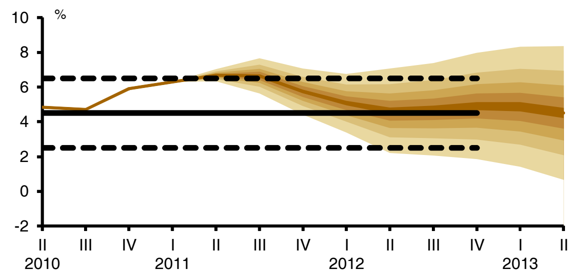
Note: accumulated inflation in 12 months (% p.a.).

The central projection associated with the baseline scenario shows inflation of 5.8% in 2011, 0.2 p.p. higher than the projection presented in the March 2011 *Report*. As can be seen on Figure 6.5, in the baseline scenario, the projection for twelve-month accumulated inflation stays above the central target level of 4.5%, determined by the National Monetary Council (CMN) until the first quarter of 2012, moving to figures close to this value in the following two quarters. According to data shown on Table 6.1, the projection for twelve-month accumulated inflation starts at 6.7% in the second quarter of 2011, remains in this level in the third quarter, decreases in the fourth, and ends the year at 5.8%. In this scenario, the associated projection for the first quarter of 2012 is of 5.1%, decreases to 4.6% in the second and third quarters, and ends the year at 4.8%. The decrease in inflation projections along 2012, in comparison to 2011, partially reflects the effects of the changes in reserve requirements announced last December and, mainly, of the Selic rate increase determined by Copom on its last four meetings. Still according to the baseline scenario, the projections for the first and second quarters of 2013 are of 4.7% and 4.4%, respectively.

It is worth to mention that the estimated probability that inflation will breach the upper tolerance level of the target in 2011, according to the baseline scenario, is 22%. For 2012, this probability is close to 14%.

Figure 6.6 – Projected IPCA-inflation with market interest and exchange rates expectations

Inflation fan chart



Note: accumulated inflation in 12 months (% p.a.).

Table 6.2 – Projected IPCA-inflation with market interest and exchange rates expectations [1/]

Year Q	Probability Interval 50%	30%	10%	10%	30%	50%	Central projection
2011 2	6.5	6.6	6.7	6.7	6.8	6.8	6.7
2011 3	6.2	6.4	6.6	6.7	6.9	7.1	6.6
2011 4	5.2	5.4	5.6	5.9	6.1	6.3	5.8
2012 1	4.4	4.7	4.9	5.2	5.5	5.8	5.1
2012 2	3.6	4.1	4.5	4.8	5.2	5.6	4.6
2012 3	3.6	4.1	4.5	4.9	5.3	5.8	4.7
2012 4	3.7	4.2	4.7	5.1	5.6	6.2	4.9
2013 1	3.4	4.1	4.6	5.1	5.7	6.3	4.9
2013 2	2.9	3.6	4.2	4.8	5.4	6.1	4.5

Note: accumulated inflation in 12 months (% p.a.).

1/ According to Gerin.

Table 6.3 – March 2011 *Inflation Report* projections

Period	Baseline scenario	Market scenario
2011 I	6.2	6.2
2011 II	6.4	6.4
2011 III	6.6	6.6
2011 IV	5.6	5.6
2012 I	4.8	4.8
2012 II	4.4	4.4
2012 III	4.4	4.4
2012 IV	4.6	4.6
2013 I	4.5	4.5

In the market scenario, the inflation projection of 5.8% for 2011 is equal to the respective baseline scenario projection and 0.2 p.p. higher than the projection presented in the last *Report*. As can be seen on Figure 6.6 and Table 6.2, projections for twelve-month accumulated inflation follow a similar pattern to that of the baseline scenario. In the market scenario, the projection starts at 6.7% in the second quarter of 2011, moves to 6.6% in the third quarter, and ends the year at 5.8%. For 2012, the projection is of 5.1% in the first quarter, moves to 4.6% and 4.7% in the second and third quarters, respectively, ending the year at 4.9%. The projections for the first and second quarters of 2013 are of 4.9% and 4.5%, respectively.

Still according to the market scenario, the estimated probability that inflation will breach the upper tolerance level of the target in 2011 is 18%. For 2012, this probability is close to 20%.

The projected dynamics for both baseline and market scenarios get close to each other along 2011. This is partially due to the existing lags on the effect of the difference between their respective interest rate paths over inflation. Indeed, in 2012, the dynamics gradually move apart, given that the resulting effect of the difference between each interest rate path is, to some extent, lower than the resulting effect of the difference between each exchange rate path. In general, inflation projections increased in comparison to figures presented in the last *Report*, and they stay above the central target level by the end of 2011 and 2012.

Comparing the trajectories shown in this *Report* with those released in the previous one – the latter shown on Table 6.3 – it can be seen that, in the baseline scenario, there was an increase in the projections along 2011, partially reflecting higher inflation rates in recent months than the corresponding projections presented in the last *Report*. The trajectory for 2012 reflects, to some extent, higher inflation expectations. Regarding the first quarter of 2013, the increase in inflation projections is partially associated with the resulting inertia of the higher inflation projected for the last quarter of 2012, compared to the projection shown in the last *Report*. In the market scenario, the changes in projections, with respect to the March 2011 *Report*, also reflect these movements.

Figure 6.7 shows the path of twelve-month accumulated inflation, according to the baseline and market scenarios, up to the second quarter of 2013, as well as the target trajectory. The figures are actual twelve-month inflation until May 2011

Figure 6.7 – Projections and target path for twelve-month cummulative inflation

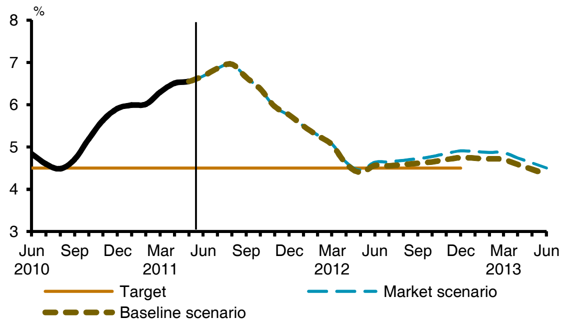
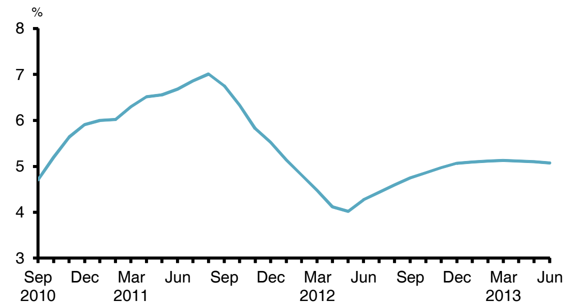


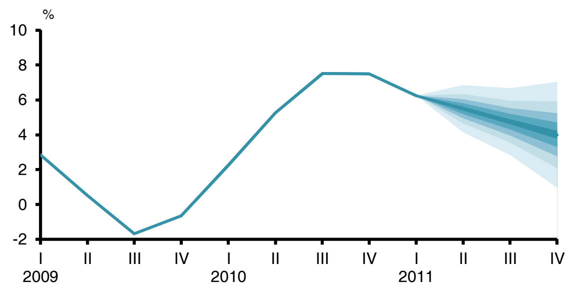
Figure 6.8 – Inflation forecast: VAR models



Note: accumulated inflation in 12 month (% p.a.).
Average forecast generated by the VAR models.

Figure 6.9 – Projected GDP growth with interest rate constant at 12.25% p.a. (Baseline scenario)

Output fan chart



and, from then on, projections according to the two scenarios are used to compose the accumulated values. The projections fluctuate above the central target level along 2011. In both scenarios, the trajectory indicates a decrease in the twelve-month accumulated inflation in the fourth quarter of 2011, the same behavior is observed in the first and second quarters of 2012. In the last quarter of 2012, in both scenarios, the trajectory stays above the central target level.

In an alternative scenario, which assumes an unchanging exchange rate over the relevant horizon, at recently observed levels, and the target for the Selic rate based on data from the survey carried out by the Central Bank, the inflation projection is of 5.8% for 2011 and 4.7% for 2012. For the second quarter of 2013, the projection is of 4.3%.

The average forecast generated by the Vector Autoregressive models (VAR) for twelve-month accumulated inflation is presented in Figure 6.8. Up to May 2011, the values refer to actual twelve-month inflation and, from then on, to forecasts. When compared to the projections presented in the previous *Report*, as happens in general with the projections generated in the baseline and market scenarios, there is an increase in the VAR models forecasts for twelve-month accumulated inflation along 2011. The 2012 forecasts, in general, decrease in comparison to those presented in the previous *Report*. The VAR models forecasts, in comparison to 2011, decrease in the first quarter of 2012 and revert this movement in the second quarter. Then, they increase in the third and fourth quarters of 2012, until they converge to the unconditional mean of inflation by the end of the forecast horizon.

Figure 6.9 illustrates the output growth fan chart built under baseline scenario assumptions. Considering that the model which generates GDP growth projections uses two variables that are not directly observable – potential output and output gap – the forecast errors associated to these projections are considerably higher than the errors related to the inflation projections. According to this scenario, the GDP growth projected for 2011 is of 4.0%; the same value presented in the March 2011 *Inflation Report*.