6 Inflation outlook

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 2010. The chapter also presents the analysis of the inflation prospects up to the second quarter of 2012 and of Gross Domestic Product (GDP) growth up to the end of 2010. Inflation projections are presented in two major scenarios. The first scenario, called the baseline scenario, assumes that the Selic rate will remain unchanged at 10.25% per year over the forecasting horizon, the level defined by Copom at its most recent meeting, held on June 8 and 9, and that the rate of exchange will remain at R$1.80 per US dollar. The second scenario, named the market scenario, is based on the expected paths for basic interest and exchange rates drawn from the survey carried by Brazilian Central Bank's Investors Relation Group (Gerin) among independent analysts. It is important to stress that these scenarios are used only as support for monetary policy decisions and should not be viewed as Copom forecasts of the future behavior of interest and exchange rates. The projections released here utilize the set of information available up to the cutoff date of June 18, 2010.

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 present at the above mentioned cutoff date. Inflation forecasts depend not only on the assumptions over 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 Broad National Consumer Price Index (IPCA), after reaching 4.31% in 2009 (rate 1.59 p.p. lower than that seen in 2008), returned to increase in 2010 in line with the robust growth pace of domestic demand. IPCA posted inflation of 3.09% over the first five months of 2010, the highest rate for the period since 2006 and 0.89 p.p. above that recorded in the same period last year. Twelve-month inflation up to May reached 5.22%, a rate close to that observed in the same period of 2009 (5.20%) and higher than the center of the target (4.5%). Thus, although at a slower pace in the second quarter, inflation dynamics presented important deterioration in the first months of the year.

Regulated prices rose 4.31% in twelve months up to May whereas market prices rose 5.60%. Within the set of market prices, it stands out that the price change for nontradable goods (7.24%) was much higher than that for tradable goods (3.79%). This behavior stems in part from the asymmetric effects of the world economic crisis on the domestic economy whose the most intense effects were observed in manufacturing sector while the service sector was very resilient as well as the strong expansion of the domestic demand. The gap between twelve-month inflation of regulated prices and market prices which had been declining consistently, increased again in the last three months. Actually, the gap, which was -6.21 p.p. in June 2008, reversed completely in October 2009 (0.16 p.p.) and it has again increased since March, reaching -1.29 in May. Showing the strength of the domestic demand, service sector inflation has remained at a level higher than that of market prices. In fact, the change in service prices reached to 6.78% in twelve months up to May (against 7.23% in the same period of 2009).

After growing 5.1% in 2008% and receding slightly in 2009 (0.2%), GDP at market prices grew by 2.7% in the first quarter of 2010 compared to the previous quarter according to seasonally adjusted data by the Brazilian Institute of Geography and Statistics (IBGE), after increases of 2.2% and 2.3% in the two previous quarters. Thus, the Brazilian economy is in a new cycle of growth resuming to the growth rates seen before the escalation of the world crisis in September 2008. From the supply side viewpoint, manufacturing sector increased by 4.2% in the first quarter (after increasing by 3.3% and 4.0% in the previous two quarters) on a quarterly basis with seasonal adjusted data partially, due to the effects of monetary, credit and fiscal stimulus used to mitigate the consequences of the crisis of 2008. The service sector, whose growth rates are less volatile, expanded 1.9% in the first quarter following increases of 1.6% and 0.7% in the two previous quarters. Agriculture production, which had recorded contraction of 0.5% in the third quarter of 2009 and expansion of only 0.2% the following quarter reflecting the lower level of global activity and the consequent fall in prices of agricultural commodities, registered recovery with growth rate of 2.7% in the first quarter of 2010. In general, the strength of domestic demand – based on credit and employment expansion – was important for the rapid recovery of the economy and continues to contribute to the current cycle of economic expansion.

From the viewpoint of agregate demand, after suffering strong reductions in the last quarter of 2008 and in the first quarter of 2009 (-9.7% and -12.0% respectively against the previous quarter), the Gross Fixed Capital Formation (GFCF) grew 7.4% in the first quarter against the previous quarter according to seasonal adjusted IBGE data, after rising more than 7.0% in the two previous quarters (7.5% and 7.1% respectively). This behavior supports the positive scenario regarding the strength of the economy's expansion. Household spending – the most important component of aggregate demand – rose 1.5% in the first quarter in same basis of comparison, a rate lower than those prevailing in the two previous quarters (2.5% and 2.1% respectively). With four consecutive quarterly increases, household spending has made solid contributions to sustain domestic demand. Government spending registered increase of 0.9%, after growing 0.5% and 0.6% in the last two quarters of 2009 respectively. On the other hand, the external sector contributed negatively to GDP growth in first quarter (-2.9 p.p.), with imports increasing by 13.1% (contribution of -4.5 p.p.) and exports by 1.7% (contribution of 1.6 p.p.). Based on recent developments, a plausible scenario includes the negative contribution of the external sector to GDP growth in the following quarters.

The resilience of domestic demand has again been the key element for sustaining the Brazilian economy. This assessment is supported by the performance of retail sales. Indeed, after they had grown 9.1% in 2008 and receded 5.9% in 2009 due to the effects of the crisis of 2008, real retail sales rose in 2010 (11.8% over the year up to April) according to IBGE. In twelve months up to April, sales increased 8.2% highlighting the sharp increase of sales in the "supermarkets, food, beverages and tobacco" segment (9.7%) and in "furniture and appliances" (9.1%). The expanded retail sales – which includes "vehicles, motorcycles, parts and spares" and "construction material", sectors more sensitive to credit conditions – has also presented strong performance, growing 10.7% in twelve months up to April, driven by sales of "vehicles, motorcycles, parts and spares", which posted growth of 17.3%. Actually, car sales have already surpassed the pre-crisis level. The Copom assesses that retail sales should continue to display positive results over the coming quarters, driven, among others factors, by the expanding employment and by the household credit dynamism.

The average unemployment rate, which had been consistently falling (10.0% in 2006, 9.3% in 2007 and 7.9% in 2008), increased to 8.1% in 2009 and returned to recede in 2010. In fact, the average rate stood at 7.4% up to April, 1.3 p.p. lower than that observed in the same period of 2009. In April, the seasonally adjusted unemployment rate by IBGE reached 6.8%, the lowest level in the new series. According to IBGE, the average real earnings – which grew 3.2% in 2007, 3.4% in 2008 and 3.2% in 2009 despite the effects of economic crisis – continue to increase in 2010 with an expansion of 1.1% up to April. In turn, the average number of persons working, which had increased 2.6% in 2007, 3.4% in 2008, and slowed in 2009 (0.7%), increased again in 2010, an increase of 3.4% in the first four months of the year. Thus, real wage bill – important factor driving aggregate demand in recent years – continues to expand in 2010. After growing by 5.8% in 2007, by 6.9% in 2008 and by 3.9% in 2009, it increased by 4.5% in April mainly due to the job creation. As per National Confederation of Industry (CNI) data, with regard specifically to industrial sector, the most heavily affected by the crisis of 2008, employment in manufacturing, which grew 3.7% in 2007 and 3.9% in 2008, receded in 2009 (-3.3%). In 2010, it has grown by 3% up to April, a rate higher than those observed before the global crisis. Concerning the evolution of formal employment, after intense falls at the end of 2008 and the beginning of 2009, job creation has presented a strong pace according to Ministry of Labor and Employment (MTE) data, with the creation of 962,000 positions this year up to April. Service sector, manufacturing and construction industry and commerce created, respectively, 346,000, 287,000, 166,000 and 74,000 new positions this year up to April. In twelve months up to April, the aggregate expansion reaches 1.9 million positions.

In addition to increased payrolls, credit availability to households – largely determined by macroeconomic stability and institutional improvements achieved in recent years – had been a key element to increase private spending. After being negatively affected by the crisis of 2008, the financing conditions and credit volume returned to more favorable patterns position. Financial system nonearmarked credit to households grew by 18.2% in April compared with the same month last year. In the same period, credit to housing, whose operations are mainly based on earmarked resources, grew 49.7%. Overall, credit expansion to households has occurred in a context of reduction of how performing loans. Moreover, expectations of market analysts and banking sector representatives point to expansion of credit volume – less vigorously than that observed before the crisis, despite recent adjusts in reserve requirements and changes of monetary policy stance.

After being severely affected by the crisis of 2008, investment performance has been significantly positive since the second half of 2009. Actually, the rapid recovery of the domestic economy – partly due to the appropriate and timely adoption of monetary, fiscal and credit measures with countercyclical effects – and the abandonement of pessimistic scenarios for the world economy led to a reduction in the degree of uncertainty and risk aversion. This also improved the credit conditions and made entrepreneurs to resume business investment plans that had been interrupted or even abandoned during the crisis. Consequently, according to seasonally adjusted data by IBGE, the GFCF grew by 7.5%, 7.1% and 7.4% in the last three quarters compared to the previous quarter. Additionally, it is likely that the current expansion of the Brazilian economy will be boosted by several projects related to oil sector (pre-salt oil reserves), infrastructure, largely led by public sector.

The volume of credit with nonearmarked resources to corporate entities grew 15.7% in April, compared to same month the previous year, reaching R$795.7 billion in April. Such behavior was favored by loan and financing done through the National Bank of Economic and Social Development (BNDES) system, which totaled R$35.7 billion up to April, an increase of 39.4% over the same period in 2009. In the twelve months up to April, these outlays increased 36.6% and totaled R$295.6 billion. Concerning capital market, the volume of initial public offerings of shares registered in the Securities and Exchange Commission (CVM) reached R$27.2 billion in twelve months up to May. In the secondary market, the issuances amounted to R$17.2 billion in the same period, especially for operations in the financial sector that occurred in 2009, including an issuance of R$ 14.1 billion in depositary receipts. In 2010, the issuances concentrated on real estate companies and construction, showing the sector recovery. Additionally, the issuance of debentures (excluding operations involving leasing companies), after reaching R$6.3 billion in 2008 and R$11.1 billion in 2009, reached R$17.1 billion in the June 2009 to May 2010.

Regarding the external sector, the trade balance showed virtual stability in 2009 (US$25.3 billion from US$24.9 billion in 2008), but decreased in 2010. Up to May, the trade balance reached US$5.6 billion against US$9.3 billion for the same period last year, a decrease of 39.6%. This result comes from exports amounting US$72.0 billion and imports equal to US$66.5 billion, values respectively, 29.9%% and 43.9% higher than those recorded in the same period of 2009. In this context, the drop in the trade balance comes mainly from the stronger increase in imports related to exports, in line with the fact that the domestic economy is expanding at rates higher than those observed in mostly of our business partners. It is noticeable, however, that export revenues can be positively impacted over the year, among others factors, by the expected increase in the price of iron ore.

After decreasing 2.5% in 2008 – the first drop since 1996 – and 10.7% in 2009, quantum of exports grew again in 2010 (8.5% up to April), with the gradual recovery in external demand. The resumption of external demand also positively impacted the average price of exports, which rose 15.2% over the year up to April, after declining 13.4% in 2009. In turn, after contracting 17.4% in 2009, quantum of imports increased by 41.2% up to April, reflecting the acceleration in domestic activity, particularly in the manufacturing sector, which has higher propensity to import. On the other hand, the average price of imports, after falling 10.5% in 2009, showed stability up to April (0.5%)

The remittances of profits and dividends contributed to increase the twelve-month current account deficit, that moved from US$25.4 billion in January to US$36.2 billion in April (2.0% of GDP). Twelve-month foreign direct investments amounted to US$25.1 billion (1.4% of GDP) up to April 2010.

Signs of slow and uneven recovery in the global economy have continued to build up since the last *Report*. Unlike the mature economies, whose recovery has occurred in a markedly heterogeneous way, economic activity in many emerging economies continues in expansion pace, in some cases with magnitude and speed greater than those expected. Initially, these facts were reflected in commodity prices and especially in oil prices, which recently came to surpass the barrier of US$85. Since the last *Report*, however, concerns about the effects of sovereign debt crisis in European countries have intensified, which increased the uncertainty about the sustainability and pace of recovery in mature economies. As a result, prices of various commodities were reduced since the last *Report*. Under these conditions of heterogeneous and gradual improvement in global economic scenario and some recovery in demand for risky assets, there was appreciation of the currencies of major emerging economies and of US dollar. However, it should be noted that perception of systemic risk in international financial markets apparently reappeared. Despite recent developments in the Euro area, the prospects for the global economy have not deteriorated since the release of the last *Report*. It is plausible to assume that the current situation will stabilize or even improve over the coming quarters, even though the current situation is deemed to be shrouded in more uncertainty than the prevalent when the release of the last *Report*.

Regarding aggregate supply, after displaying sharp contraction in the fourth quarter of 2008 and first quarter of 2009 (7.6% and 4.5%), the manufacturing sector grew steadily since then. In the last three quarters up to the first quarter of 2010, there were expansions of 3.3%, 4.0% and 4.2%, according to seasonally adjusted IBGE data. This recovery was reflected in the agricultural sector, which grew 2.7% in the first quarter of 2010, after stagnation in the two previous quarters (-0.5% and 0.2%). In turn, after contraction of 1.9% in the fourth quarter of 2008, the service sector recorded the fifth consecutive quarter of expansion in the first quarter of 2010 (1.9%), which shows a consistent recovery.

Industrial production decreased 0.7% in April compared to March according to seasonally adjusted IBGE data, which is partly explained by anticipation of production to meet anticipated consumption due to the withdrawal of tax incentives for the purchase of durable goods. In general, however, industrial production shows robust expansion in 2010, even after growing the first ten months of last year. This year up to April, industrial production expanded 18.0%, and grew 2.3% in twelve months, the first positive rate in this metric since January 2009. Manufacturing and mining industries grew by 18.0% and 18.5% up to April, respectively, and 2.4% and 1.1% in the last twelve months. The sectors most dependent on credit such as automotive and construction, and consequently the most affected by the global economic crisis, show expansion and for some cases they already exceed production levels prevailing before the crisis.

From the demand viewpoint, the GDP – net of inventory adjustments of -1.2 p.p. – grew 7.7% in the first quarter of 2010 compared to the same quarter last year, with the external sector presenting a negative contribution of 2.9 p.p. The inventory level indicator from FGV, which had receded to 78.9 in January 2009, the lowest level since August 2003, has been rising consistently since then. In April and May, the indicator reached 101.3 and 100.5 respectively, according to seasonally adjusted data, showing that the process of adjusting inventory levels in manufacturing ended. Actually, the rebuilding of inventories has contributed to the consistent recovery of activity level. Copom assesses that industrial production should continue to grow robustly, with positive effects on employment and income level.

After reaching 86.7% in June 2008, the seasonally adjusted Level of Utilization of Installed Capacity (Nuci) computed by the Getulio Vargas Foundation (FGV) moved down to 77.9% in February and March 2009 due to the 2008 crisis. This indicator has consistently risen since then and it reached 85.1% and 84.9% in April and May respectively, levels close to those prevailing before the crisis of 2008. Regarding the expansion of capacity, after robust growth of 23.8% in 2007 and 20.1% in 2008, the absorption of capital goods contracted by 13.4% in 2009. In 2010, however, the absorption has increased and there was an expansion of 28.2% up to April. This growth is due to the

increase of 13.8% in imports and only 3.2% in exports of capital goods, and of 28.7% in the domestic production of these goods. It is also worth noting the production of inputs for the construction industry increased 16.1% in the same basis of comparison. Industrial production indicators and retail sales figures show a robust expansion of activity. Actually, after moving from 125.9 in June 2008 to 71.1 in December 2008, the seasonal adjusted FGV´s Economic Outlook Survey indicator of global demand for the manufacturing industry surpassed the 100-point threshold in September 2009 and reached 120.8 in May 2010. Thus, an increasing number of companies qualify the demand for its products as strong and, in turn, decreases the amount of those that judges the demand as weak. In summary, the data points out the utilization rate has been rising through the last months showing virtual exhaustion of the idleness margin of the industry, despite the resumption of investment.

With the worsening of the world crisis, the National Cost of Construction Index (INCC) began to show signs of cooling off in the last quarter of 2008. However, there was a reversion of this trend since the end of 2010 Actually, after peaking in November 2008 (12.33%), the twelve-month change in INCC moved down to 3.25% in December 2009 and has been steadily increasing since then, having reached 6.07% in May. The medium term scenario for construction sector prices – sector in which the use of imported inputs is limited – continue pointing out the continuation of this process. This is due to the intensity of activity in this sector, which must be supported by public policies, the expansion of the labor market and the expansion of housing credit markets. It should be noted that there are expectations by market analysts of increases in steel prices.

Despite rising in 2009 (8.1%), after two consecutive years of reduction (from 10.0% in 2006 to 9.3% in 2007 and then to 7.9% in 2008), the average unemployment rate have persistently receded since the end of 2009. Rigorously, not only the unemployment rate has been reduced since November 2009 compared to the same period of last year (7.2%, 7.4%, 7.6% and 7.3% in the last four months up to April against 8.2%, 8.5%, 9.0% and 8.9% in the last year) but it has also been standing at historically low levels in recent months (7.5%, 7.1%, 7.0% and 6.8% according to seasonal adjusted IBGE data). The strength in the labor market is confirmed when analyzing the numbers of formal employment and industrial employment – the most affected by the crisis, as well as the growth rates of wages. The prospects for the coming quarters continue to indicate the continuity of this dynamic.

After surpassing the threshold of US$85 in May 2010, oil prices – a systematic source of international market uncertainty – receded to a level close to US$75 in the latest weeks due to increasing concerns about the impact on global growth of the fiscal crisis in European countries. Despite considerable uncertainty inherent to forecasts over the path of oil prices, the baseline scenario adopted by Copom, which foresees unaltered domestic prices of gasoline for 2010, remains plausible. It is also worth noting that the impact of international oil prices over domestic inflation is not transmitted exclusively through fuel prices but also, through other channels, such as the productive chain of the petrochemical sector, as well as the expectations of consumers and entrepreneurs. It is also appropriate to note the strong increase in the price of iron ore and other metals due to the recovery of world economy especially for emerging countries. On the other hand, agricultural commodity prices have been very volatile and consistent signs of recovery cannot yet be clearly identified.

After a sharp reduction in 2009 (-1.43% against 9.10% in 2008), broad inflation – measured by the General Price Index (IGP-DI) – has been rising through 2010. Twelve-month IGP-DI inflation, which had reached 14.82% in July 2008, had receded to -1.76% in October and November of 2009 has returned to the positive territory in 2010. IGP-DI grew 5.12% over the year up to May, 5.86 p.p. higher than that observed in the same period of 2009, and the twelve-month rate reached 4.38%.

The sharp acceleration in the index in 2010 is mainly due to IPA-DI and INCC whose changes up to May reached 5.72% and 4.48% respectively against -2.29% and 1.70% for the same period of previous year. Additionally, IPC-Br grew by 3.86%. The sharp IPA-DI increase is partly due either to the change in the agricultural prices, for which the twelve-month change reached 5.26% and to manufacturing prices with an increase of 5.86%. As pointed out in previous *Reports*, the Copom assesses that the effects of wholesale price behavior over consumer inflation will depend on current and prospective demand conditions and on expectations of price makers in relation to the path of future inflation.

As for headline inflation, the three core measures computed by the Central Bank show an inflation increase in 2010. The twelve-month change in the core by exclusion (IPCA-EX), which had moved from 5.71% in December 2008 to 4.73% in December 2009, rose to 4.93% in May 2010. The other two measures of core inflation have displayed the same pattern. The change in the core by smoothed trimmed mean (IPCA-MS), which had reached 4.82% in December 2008 and had been reduced to 4.24% in October 2009, increased again to 4.99% in May. Finally, inflation measured by double weighted core measure (IPCA-DP), which had reached 6.08% in December 2008 and had reduced to 4.74% twelve months later, increased again to 5.06% in May 2010. It should be noted that all core measures are above the center of the target. Additionally, after reaching 68.75% in January 2010 (against 66.15% in January 2009) the IPCA diffusion index receded to 60.94% in May 2010 (against 58.9% in May 2009), but its level continue to indicate the spread of the inflation acceleration process.

The expectations for GDP growth in 2010 have changed a lot since the release of last *Report*, moving from 5.50% to 7.06%, partly due to the release of the national accounts figures for the first quarter. Inflation expectations have also increased since the release of the last *Inflation Report* and they registered 5.61%, and 4.80% for 2010 and 2011 respectively at the cutoff date of June 18, 2010 compared to 5.10% and 4.70% for 2010 and 2011 at March 19, 2010. Broadly speaking, however, there has been a reduction of the dispersion around the central tendency of inflation

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

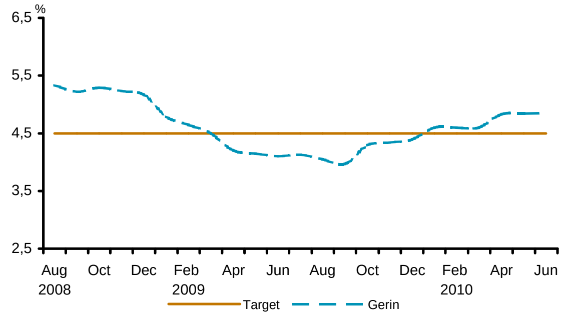
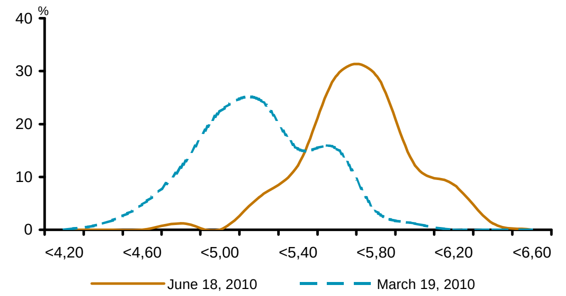


Figure 6.2 – Dispersion of inflation expectations for 2010

Relative frequency



expectations for 2010 since the release of the last *Report*. Figure 6.2 shows that the prospective scenario for inflation in 2010 has become less uncertain since the release of the last *Report*.

6.2 Main scenario: associated risks and monetary policy implementation

The projections used by 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 it, make up the main prospective scenario based on which the Committee makes policy decisions. In general terms, the prospective scenario – whose corresponding projections are presented in the following section – envisages the recovery of the global economy, though uneven across countries and surrounded by uncertainties, and robust expansion of the domestic economic activity, combined with increase in the inflation projections relative to the previous *Inflation Report*.

The balance of risks related to the inflation prospects has worsened since the previous quarter, and the Committee assesses that the risks to a benign scenario for inflation are concentrated in the domestic front. The current inflationary pressures – stemming from increasing resource utilization and from the imbalances between the growths of domestic absorption and the aggregate supply – have already materialized in actual twelve-month inflation rates above the target, and the inflation projections point to inflation rates well above the target in 2010, and that difference recedes in 2011. An important risk arises from the possibility that actual and expected inflation may persistently remain above the target or even drift away from it because of the rising utilization of the production factors and/or demand expansion. The behavior of inflation expectations is an additional risk to the inflation outlook. Even though inflation expectations have remained contained in the latest weeks, the Committee is closely monitoring the developments of the expectations and other indicators as to prevent the materialization of an unfavorable scenario. In fact, if such a less benign scenario for inflation indeed materializes, the costs associated with bringing inflation back to its target may be significant. We should stress that, despite the disinflationary effects from the domestic economic downturn that was trigged by the global financial crisis, the Brazilian inflation has shown important resilience – the trough of the twelve-month inflation was 4.17% in October

2009. Therefore, to avoid that the society incur these costs, it is recommendable the adoption of adequate and timely monetary policy measures.

On the external front, there are two main risks to be monitored, even though, in the Committee's main scenario, these risks do not pose an important threat to the materialization of a benign inflation scenario. The first risk – which has tilted to downside in the short run since the previous *Inflation Report* – is related to the recovery of commodity prices, especially if such a recovery is not offset by changes of the nominal exchange rate in the opposite direction. The second is associated with the ongoing crisis in some European countries, and the resulting worsening of the international financial conditions, which could deteriorate further. The possibility that this second risk materializes is related to the perception of systemic risk that resurfaced on the wake of the crisis. Such perception is based on the view that there is a close connection between a possible fiscal consolidation in the countries currently facing fiscal hurdles and the balance sheets of financial institutions. This scenario would likely bring about relevant movements in the price of some domestic assets.

The main scenario for the external front considers that the world economy will continue to recover in 2010, although there is more uncertainty than in the previous *Report*. Under this scenario, the global economic recovery is led by the emerging market economies, and the G3 economies (United States, Europe and Japan) regain some dynamism, though unevenly across regions. The US economic recovery is proceeding at a moderate pace, as illustrated by the fact that restocking of inventories is over, with positive effects on the performance of manufacturing production and retail sales, although the economic indicators in general are volatile and often present divergent signs. Consumer confidence is improving, even though it is well below its level prior to the 2008 crisis, and the labor market is showing signs of a rebound. The Japanese economy is also gradually recovering, led by exports directed mainly to East Asia, but its domestic demand remains weak. The economic recovery of the Euro Zone is likely to be slower and more unequal across its members given the current fiscal strains, the stagnation of household consumption and the latest indicators from the manufacturing and services sectors. In short, since the previous *Inflation Report*, there has been higher uncertainty surrounding the sustainability and the pace of the recovery of mature economies, mainly in Europe, in a context in which policy stimuli are withdrawn or even replaced by contractionary measures and prospects for credit expansion are moderate. On the other hand, several emerging market economies continue to expand robustly, to the point of overheating in the goods, services, factors and asset markets, in some cases. As a matter of fact, there is increasing concern about the behavior of inflation in important emerging markets. Against this background, monetary policy in many countries is still in pause mode after a period of aggressive easing, but in the countries less affected by the global crisis – where recovery is faster and more intense – monetary policy is already being tightened.

The fiscal imbalances, due to or aggravated by the global crisis, constitute an important issue that the mature economies have to deal with. The implementation of fiscal stimuli by these economies and the fall of their tax revenues because of the economic contraction led to an unprecedented peacetime growth of their public debts. Projections of different experts suggest that the government debt will rise substantially if relevant measures aiming at fiscal adjustment are not implemented. Dealing with the fiscal imbalances poses a big challenge for the advanced economies because the fiscal stimuli still in place are relevant for the economic recovery. Despite this fact, many countries have already started to implement tighter fiscal policies in order to improve the financial position of the public sector and conduct stress tests for their banking systems.

In face of the significant uncertainty regarding the speed and magnitude of the global economic recovery, two alternative scenarios are considered here. In the first, the world economy recovers slowly, and market participants remain overly cautious about the solvency of some European countries, so that the contractionary effects on the domestic economy would persist over the entire projection horizon. The Committee assesses that the materialization of such a scenario would have ambiguous effects on the domestic inflation. On one hand, the global downturn would help to contain the domestic aggregate demand through the fall of Brazilian net exports. Furthermore, the contraction could cool off the prices of important commodities and thus could help to keep the domestic inflation low. On the other hand, the outlook for the domestic inflation could worsen for two reasons. First, the global deceleration could increase risk aversion and reduce the demand for Brazilian assets, depreciating their prices. Second, a possible reduction of net exports in the medium term could reinforce the depreciation of Brazilian asset prices and so put upward pressure on inflation. In the second scenario, the global economic upturn is faster than expected, accompanied by full restoration of financial conditions and confidence, together with the recovery of commodity prices. In principle, as in the first alternative scenario, the impacts on domestic inflation would be ambiguous.

Commodity prices have not shown any clear upward trend throughout this year, with quite heterogeneous behavior within the group. In the case of iron ore, for example, a key input in the production chain of the manufacturing sector, its price has been increasing significantly over the last months. On the other hand, in the case of sugar, in part as a result of weather conditions in India, the downward trend for its prices prevails. Overall, however, the outlook for commodity prices – including oil prices – remains surrounded by considerable uncertainty. It depends on how the demand will behave in a context of asymmetric recovery of the global economy, on the uncertainties regarding the European fiscal situation as well as on the trajectory of the world supply. In any case, it is expected that these prices are more likely to rise than to remain stable in the medium and long term as the world economy recovers. It is important to remember that the analysis of the potential inflationary effects coming from the prices of raw materials must also take into account the implications for Brazilian asset prices. For instance, in the past few years, there has been a negative correlation between the international price of commodities and the exchange rate in Brazil. Nonetheless, considering a prospective scenario in which the current account worsens, that negative correlation may become weaker in the medium run.

The main domestic risk, as stressed in the beginning of this section, is associated with rising resource utilization together with the imbalance between the growths of domestic absorption and the aggregate supply. As highlighted in previous *Inflation Reports*, the increasing utilization of production factors – both the capital stock and the labor force – was taking place when the twelve-month inflation was already close to the target. Against this background, isolated inflationary pressures could quickly turn into higher overall inflation and a less benign scenario. In fact, since the first quarter of 2010, both current inflation and Copom projections point to values well above the target for 2010, but with a less challenging scenario for 2011. The economic downturn of the last quarter of 2008 and first quarter of 2009 led to an abrupt interruption of a cycle of strong economic growth and mitigated existing inflationary pressures. Nevertheless, in spite of the magnitude of the downturn – in large part mitigated by government policies implemented during the crisis and earlier – the existence of mechanisms turning the Brazilian inflation rigid downward reduces the scope for accommodative stances. Additionally, it is important to mention that the lagged effects of the fiscal and credit stimuli implemented throughout 2009 and beginning of 2010 have not completely materialized yet. Therefore, it is natural to expect that, against this background of virtual scarcity of resources and increasing demand, price increases are more widespread.

The behavior of the GDP in the first quarter of 2010 confirmed the fast growth of the domestic economic activity. In particular, investment – the more volatile component of aggregate demand and, not coincidentally, most affected by the crisis – continues to grow robustly. For the first time since the beginning of the crisis, the gross formation of fixed capital (GFFC) surpassed its pre-crisis level of the third quarter of 2008. As a result, the investment rate – the GFFC-to-GDP ratio – is recovering, reaching 18% in the first quarter of 2010. Such a solid recovery will contribute to a more sustained economic growth in the medium run, once the current investment is translated into higher productive capacity in the future. However, there is still the risk that the growth of the capital stock may not be enough to ensure that aggregate supply meets the expected strong growth of the aggregate demand without pressures on consumer prices. The strong growth of imports during the fourth quarter of 2009 and the first quarter of 2010 – 13.3% and 13.1%, respectively (q-o-q after seasonal adjustment) – as well as the strong increase in the import volume in April 2010 are in line with the robust growth of the aggregate demand. In comparison, the growth of export volume is still weak because of the slow global recovery, especially in the developed economies. However, the rebound in the prices of raw materials and semi-manufactured products is partially offsetting the slow pace of export volume. The outlook for the external sector is largely conditioned by the necessity of filling the gap of resources resulting from the strong growth domestic demand.

The ongoing expansion of the domestic economy and its growth prospects are based on four elements. First, and in contrast to previous shocks to the Brazilian economy, this time there was no balance-of-payment crisis, deterioration of public sector finances, increase in inflation or concern about policy regime change. In short, as stressed in other Copom texts, the Brazilian economy became more resilient to external shocks. Second, the fiscal and credit stimuli are still adding to the domestic expansion. Third, and possibly more importantly, household consumption – which accounts for the largest share of the aggregate demand – has been quite resistant. The expansion of consumption is associated, in large extent, with the resumption of credit and better-than expected performance of the labor market, which has positive effects on payroll. The expansion of labor market formalization also contributes positively since employees feel less insecure to make consumption decisions and makes easier the access to the credit market. Fourth, investment has recovered vigorously, and the prospects are very positive, given the rising confidence of consumers and entrepreneurs and the capacity utilization indices. This scenario will be reinforced by projects related to the oil sector (pre-salt) and infrastructure, in large extent, led by the public sector. We should stress that those projects, as well as the realization of events such as World Cup in 2014 and the Olympic Games in 2016, generate several externalities for the economy as a whole and should stimulate private investment expansion in the following years.

The Committee judges that there are important mechanisms making the Brazilian inflation downward rigid. In particular, the presence of regular and almost automatic mechanisms of adjustment, either *de jure* and/ or *de facto*, has contributed to the persistence of inflationary pressures coming from the past. This phenomenon took place recently as inflation, in spite of the strong economic activity reduction, stood at 4.31%, close to the target of 4.5% in 2009, with price of services growing by 6.37%. It is well known that the existence (even informally) of price indexation mechanisms reduces the sensitivity of inflation to demand conditions. Even though inflation rates have been relatively low in recent years, by Brazilian standards, they still encourage feedback mechanisms as they do not correspond to the usual concept of price stability. In general, indexation mechanisms tend to prevent the economy from disinflating during downturns and increase the "starting point" of the inflation rate during upturns, thus raising the inflation risks for the prospective scenario in moments like this.

On the fiscal front, the economic recovery led by the expansion of domestic demand, as well as the phasing out of tax breaks implemented during the crisis have improved the fiscal accounts. Based on the information available so far, and provided that the primary surplus continues to rise according to the assumptions used in the inflation projections presented in the next section, the Committee assesses that is unlikely to occur any significant and consistent reversion of the trend towards a reduction of the debt-to-output ratio. The Committee also recognizes that the realization of these assumptions would contribute in a relevant way to the correction of the imbalance between the growths of domestic absorption and aggregate supply.

Breaking down the IPCA into free and regulated prices reveals that in 2009 the latter exerted larger pressure on overall inflation than the former, differently from the previous two years. However, the scenario for regulated prices in the medium term is relatively benign. In fact, the prospective scenario considers that the regulated price inflation will be lower than the free price inflation in 2010. In particular, the domestic prices of gasoline are unlikely to rise in the short run.

The recent trend of wholesale prices of manufactured goods displayed an important shift. After falling by 4.43% in 2009 – with negative changes in nine months of the year – the IPA for manufactured goods grew 5.86% in the first five months of 2010. In May 2010, this set of prices increased by 2.66%, the largest change since December 2002, when there was a confidence crisis and large exchange rate depreciation. Differently from last year, the wholesale price index of farming products has also increased quite a lot in 2010, going from a deflation of 3.16% in 2009 to an inflation of 5.26% in the first five months of the current year. In fact, the behavior of the wholesale prices of manufactured and farming products during the first five months of 2010 is similar to that observed in the same period of 2008. Given the evidence that changes in wholesale prices have lagged effects on consumer prices, as highlighted in a box of the March 2010 *Inflation Report*, the ongoing increase of wholesale prices is likely to affect headline inflation in the coming months.

In short, some sectoral or disaggregated price indices, as well as wholesale price indices, point to a less benign scenario for inflation: i) the services sector still remains as an important source of inflationary pressures; and ii) the wholesale prices of manufactured and, to a less extent, of farming goods are on the rise and will have lagged effects on consumer price indices.

The labor market is experiencing strong expansion. The unemployment rate reached its lowest level since the beginning of the new labor market survey in March 2002. The underlying risk from such tight labor market conditions is that nominal wages start to grow faster than labor productivity, which, in an environment of buoyant demand, tends to be transmitted to consumer prices. We should stress that the theory, supported by international evidence, recommends that wage moderation plays a key role in reaching price stability.

The credit market continues to expand at a strong pace. The main scenario involves the maintenance of the expansion of the domestic credit market and of the favorable conditions for Brazilian companies to access external credit. The development of the credit market in Brazil has brought the profile of that market closer to those of economies with similar levels of economic development. However, the sustainability of the strong credit expansion must be – and has been – closely monitored given the potential side effects on inflation and prudential risks.

The possibility that unexpected changes in the inflation dynamics may have long-lasting effects on agents' inflation expectations constitutes a perennial risk for monetary policy implementation and, therefore, must be monitored continuously. In principle, short-run inflationary pressures may lead to the dissemination of second-round effects. This happens because large changes in relative prices that result in high inflation rates are followed by agents' desire to restore their real income, which, in turn, feeds back into the inflationary process. Such a risk is higher when factor markets and demand are overheated, and the evidence suggests that such is the situation the Brazilian economy is currently experiencing. The international experience, as well as the own history of inflation in Brazil, recommends that the monetary authority remains cautious in order to fight potential second-round effects.

The strategy adopted by Copom aims to ensure the convergence of inflation to its target in the current and in the next years. This requires that deviations of inflation from its target must be readily corrected. Such a strategy takes into account the lags in the transmission mechanisms and is the most appropriate way to deal with the uncertainty inherent to the process of formulating and implementing monetary policy.

The Committee evaluates that the Brazilian economy is in a new expansion cycle. This assessment is corroborated by the information released since the previous *Inflation Report*, even though there is still some uncertainty about the pace of the ongoing expansion. There are signs of overheating coming from core inflation measures, inflation expectations, tight labor market conditions and rising cost of raw materials. In fact, the Committee's inflation projections have indicated some deterioration of the prospective scenario. The Committee understands that this deterioration should be contained and, for that reason, it is necessary to reverse the signs of imbalances between the growth pace of aggregate demand and aggregate supply, which ultimately tend to increase the inflation risks. In such circumstances, monetary policy must be adjusted to eliminate those imbalances and at the same time prevent that isolated inflationary pressures result in persistent deterioration of the prospective scenario.

The Committee understand that, despite the fact that a substantial part of the policy stimuli implemented during the international financial crisis have been unwound – such as the rise of banks' reserve requirements and the reversion of tax breaks – the risks to a more benign scenario for inflation, in which inflation would consistently converge to its target, have tilted to the upside. On the other hand, the latest developments on the external front have raised some caution about the assessment of the prospective scenario. In any case, the Committee members' prevailing understanding is that monetary policy must act in a timely fashion in order to prevent that short-run uncertainties propagate to longer horizons.

In light of these considerations, proceeding with the adjustment of the monetary conditions to the prospective scenario, in order to ensure the convergence of inflation to its target, the Committee unanimously decided to increase the Selic rate from 8.75% p.a. to 9.5% and 10.25%, without bias, in the meetings of April and June, respectively.

6.3 Inflation forecasts

According to traditionally adopted procedures, and taking into account the available information up to the cutoff date[1] of June 18, 2010, the baseline scenario assumes the exchange rate remains unchanged over the forecast horizon at R$1.80/US$, and the target for the Selic rate stays at 10.25% p.a. – the level set by the June Copom meeting – against R$1.80/US$ and 8.75% p.a. considered in the March *Inflation Report*. The projection for the change, in 2010, of the set of regulated and monitored prices stands at 3.6%, against 4.0% considered in the last *Report*. This projection is based on the hypotheses of stable prices for gasoline and bottled gas; increase of 1.5% for electricity rates; and of 1.6% in the fixed telephone rates. Regarding items for which more information is available, price changes were estimated individually, whereas for the others, the 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 those models,

1/ The only exception is the inflation target for 2012, set at 4.5% through the Resolution CMN nº 3.880, of June 22, 2010. The figures and tables presented in this section already incorporate the target for 2012.

projection of the regulated and administered prices for 2011 stands at 4.4%, above the value used in the March 2010 *Report* (4.3%), and of 4.5% for 2012.

The market scenario, on the other hand, is based on 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 slightly changed in comparison to the values released in the March *Inflation Report*. For the last quarter of 2010, these expectations moved from R$1.83/US$ to R$1.81/US$, and for the last quarter of 2011, were kept at R$1.86/US$. For the second quarter of 2012, average survey expectations project an exchange rate of R$1.89/US$. The average expectation about the Selic rate increased in comparison to the values presented in the last *Report*. For the last quarter of 2010, it moved from 11.14% to 11.81% p.a., while for the last quarter of 2011, it went from 11.14% to 11.75% p.a. For the second quarter of 2012, the projection for the average Selic rate is 11.33%. This trajectory of the Selic rate is consistent with a pre-DI swap of twelve months spread, with respect to the current target for the Selic rate (10.25% p.a.), of 260 b.p. and 175 b.p., in the last quarter of 2010 and 2011, respectively. Additionally, the market scenario assumes changes of 3.6% and 4.6% for the group of regulated prices in 2010 and 2011, respectively, and of 4.5% in 2012.

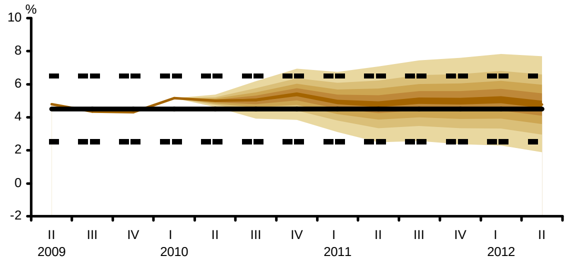
With regard to fiscal policy, the projections presented in this *Report* are based on the working hypothesis of a primary surplus of 3.3% of GDP in 2010. In this case, the surplus is adjusted by the possibility of reduction of 1.12 p.p. due to the implementation of projects belonging to the Growth Acceleration Program (PAC). Moreover, the primary surplus in 2011 and 2012 is assumed to remain at the level of 3.3% of GDP without any adjustment.

Based on the above assumptions and using the information set until the cutoff date (June 18, 2010), projections were constructed for the IPCA inflation accumulated over four quarters, consistent with the baseline and market scenarios interest and exchange rate paths.

The central projection associated with the baseline scenario shows inflation of 5.4% in 2010, an increase of 0.2 p.p. in comparison to the projection presented in the March *Report*, therefore, above the central value of 4.5% for the target determined by the National Monetary Council (CMN). As can be seen on Figure 6.3, in the baseline scenario, the projection for twelve months inflation stays above the central

Figure 6.3 – Projected IPCA-inflation with interest rate constant at 10.25% p.a. (Baseline scenario)

Inflation fan chart



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

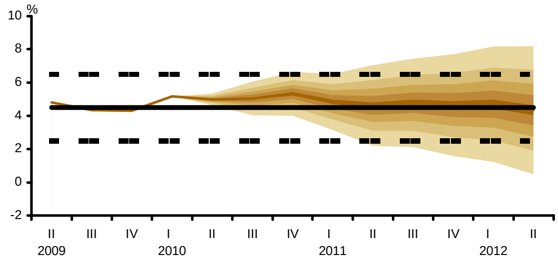
Table 6.1 – Projected IPCA-inflation with interest rate constant at 10.25% p.a. (Baseline scenario)

Year	Q	Probability Interval 50%	30%	10%				Central projection
2010	2	4.8	4.9	5.0	5.0	5.1	5.1	5.0
2010	3	4.6	4.8	5.0	5.1	5.3	5.5	5.1
2010	4	4.8	5.0	5.3	5.5	5.8	6.0	5.4
2011	1	4.2	4.5	4.8	5.1	5.4	5.7	4.9
2011	2	3.8	4.2	4.6	5.0	5.3	5.7	4.8
2011	3	4.0	4.4	4.8	5.2	5.6	6.0	5.0
2011	4	3.9	4.4	4.8	5.2	5.6	6.1	5.0
2012	1	3.9	4.4	4.8	5.3	5.7	6.2	5.1
2012	2	3.6	4.1	4.6	5.0	5.5	6.0	4.8

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

Figure 6.4 – 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%				Central projection
2010	2	4.8	4.9	5.0	5.0	5.1	5.1	5.0
2010	3	4.6	4.8	5.0	5.1	5.3	5.5	5.0
2010	4	4.8	5.0	5.2	5.4	5.6	5.9	5.3
2011	1	4.1	4.4	4.7	5.0	5.2	5.5	4.8
2011	2	3.6	4.1	4.4	4.8	5.2	5.6	4.6
2011	3	3.7	4.2	4.6	5.0	5.4	5.9	4.8
2011	4	3.4	3.9	4.4	4.9	5.4	5.9	4.6
2012	1	3.3	3.9	4.4	5.0	5.5	6.1	4.7
2012	2	2.8	3.4	4.0	4.6	5.2	5.9	4.3

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

1/ According to Gerin.

Table 6.3 – March 2010 *Inflation Report* projections

Period	Baseline scenario	Market scenario
2010 I	5.1	5.1
2010 II	4.9	4.9
2010 III	5.0	5.1
2010 IV	5.2	5.2
2011 I	4.7	4.5
2011 II	4.4	4.2
2011 III	4.7	4.3
2011 IV	4.9	4.4
2012 I	5.1	4.6

target for the entire relevant horizon. According to data shown on Table 6.1, the projection for twelve-month accumulated inflation moves from 5.0%, in the second quarter of 2010, to 5.1% in the third quarter and reaches 5.4% in the last quarter of 2010. The respective projections for 2011 moves from 4.9% in the first quarter, fluctuates around this value in the following quarters and ends the year at 5.0%. In this scenario, the associated projection for the first quarter of 2012 is 5.1% whereas for the second quarter is 4.8%. It is worth mentioning that the decrease of the inflation projections for 2011, in comparison to 2010, partially reflects the fact that inflation expectations, for both 2011 and 2012, are lower than the ones for the current year. According to the baseline scenario, the estimated probability that inflation for 2010 will breach the upper tolerance level of the target is close to 12%. For 2011, this probability is close to 17%.

In the market scenario, the inflation projection for 2010 is 5.3%, 0.1 p.p. lower than the respective projection of the baseline scenario, representing an increase of 0.1 p.p. in comparison to the projection presented in the last *Report*. As can be seen on Figure 6.4 and on Table 6.2, projections for inflation accumulated in twelve months fluctuate above the central value of the target along 2010, and recede along 2011, finishing the year at 4.6%, around the central value of the target. The projection for the first quarter of 2012, within this scenario, is of 4.7%, but in the second quarter moves to 4.3%, therefore, below the central value of 4.5% for the target. According to the market scenario, the estimated probability that inflation for 2010 will breach the upper tolerance level of the target is 7%. For 2011, this probability is close to 16%.

As it was shown in the last *Report*, the projected dynamics for both scenarios depart from each other along 2011, reflecting the effect of the expected increase in the Selic interest rate, which brings inflation back to inferior levels on the market scenario. Along 2010 this difference is quite smaller mainly due to the lags of the transmission mechanism of monetary policy to prices. Another aspect to highlight is that, in general, inflation projections have risen in comparison to figures in the last *Report*; however, there are indications that this movement is being reversed, at the margin.

Comparing the trajectories shown in this *Report* with those released in the previous *Report*, whose projections are shown on Table 6.3, it is apparent that there was an increase of the projections along 2010 in the baseline scenario, partially reflecting the increase of inflation expectations for the current year and inflation rates in recent months higher

Figure 6.5 – Projections and target path for twelve-month cummulative inflation

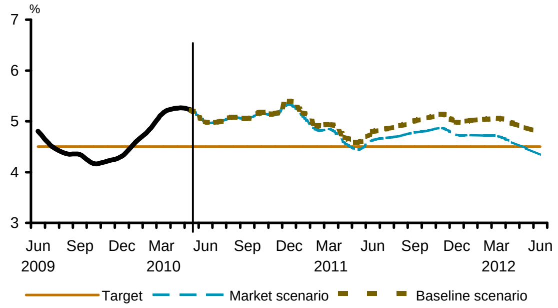
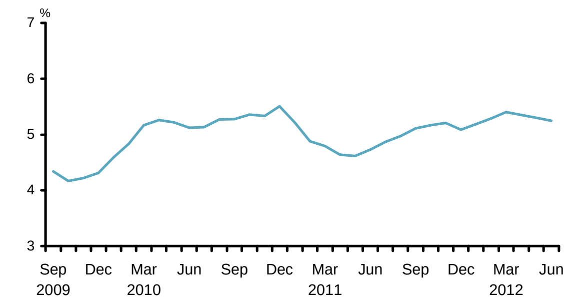


Figure 6.6 – Inflation forecast: VAR models

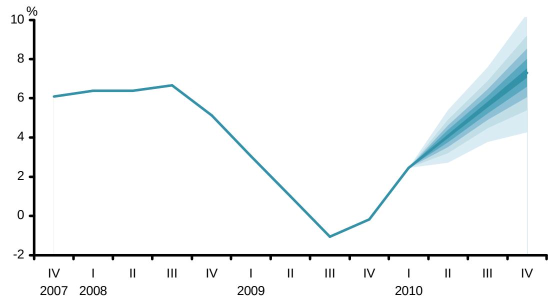


Note: accumulated inflation in 12 month (% p.a.).

Average forecast generated by the VAR models.

Figure 6.7 – Projected GDP growth with interest rate constant at 10.25% p.a. (Baseline scenario)

Output fan chart



than the respective projections presented in the March *Report*. Regarding the market scenario changes in projections also reflect these movements. In respect to 2011, it is also shown an increase in the inflation projections, for both scenarios, in respect to those presented in the March 2010 *Report*. For the first quarter of 2012, there is a relative stability in projections comparison.

Figure 6.5 shows the path of twelve-month accumulated inflation, according to the baseline and market scenarios, up to the second quarter of 2012, as well as the target trajectory. The figures are actual twelve-month inflation until May 2010, and, from June on, projections according to the two scenarios. The projections fluctuate, in both scenarios, above the target along 2010. However, it is worth noting the increasing distance between the projection paths toward the end of the considered horizon. This departure is essentially due to the expected change in the Selic rate in the market scenario.

The average forecast generated by the Vector Autoregression models (VAR) for the twelve-month accumulated inflation is presented in Figure 6.6. By May 2010, the values are actual twelve-month inflation and, as of June, refer to the average forecast of the VAR models. As well as in the projections generated in the baseline and market scenarios, the VAR models forecasts increased along the entire horizon, in comparison to those presented in last *Report*. Along 2010, the forecasts are in levels quite above the target, but tend to converge to the central target along the first semester of 2011, although afterward returning to the unconditional average of the observed inflation.

Figure 6.7 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 the 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 2010 is 7.3%, an increase of 1.5 p.p. in comparison to the projection presented in the March 2010 *Inflation Report*.