Inflation outlook

6

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 June 2010. The chapter also presents the analysis of the inflation prospects up to the third 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 10.75% per year over the forecasting horizon, the level defined by Copom at its most recent meeting, held on August 31 and September 1, and that the rate of exchange will remain at R$1.75 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 September 10, 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 the first four months of 2010, but it receded since May 2010. Thus, the twelve-month inflation moved from 5.22% in May to 4.49% in August, virtually equal to the center of the target (4.5%). In the year up to August, the IPCA increased by 3.14%, a rate 0.17 p.p. above that recorded in the same period last year. Broadly, there has been some improvement in inflation dynamics since June.

Regulated prices rose 3.77% in the twelve months up to August, whereas market prices increased by 4.79%. Within the set of market prices, it stands out that the price change for non-tradable goods (6.39%) was much higher than that for tradable goods (3.03%). Showing also the dynamism of domestic demand, service sector inflation – the largest portion of nontradable goods – has remained at a level higher than that for market prices. In fact, in the twelve months up to August, the change in service prices reached 6.85% (against 7.04% in the same period of 2009).

Despite the improvement in recent months, the three core inflation measures computed by the Central Bank show an inflation increase in twelve months. The exclusion core measure (IPCA-EX), which had moved from 5.72% in December 2008 to 4.73% in December 2009, rose to 4.87% in August 2010. Similarly, 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, reached 5.05% in August. Additionally, inflation measured by double weight core measure (IPCA-DP), which reached 6.06% in December 2008 and had fallen to 4.74% twelve months later, reached 4.83% in August. It should be noted that the three core measures are above the center of the target, despite presenting more favorable dynamic in recent months.

After reaching 68.75% in January 2010 (66.15% in the same month in 2009), the IPCA diffusion index receded to 52.60% in August 2010 (equal to the value of August 2009), suggesting that the dissemination of the process of inflation acceleration has cooled down.

After a sharp reduction in 2009 (-1.43% versus 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 14.81% in July 2008 and had receded to -1.76% in October and November 2009, returned to the positive territory in 2010 and, reached 7.05% in August, which was 7.60 p.p. higher than that observed in the same period of 2009. Over the year up to August, the rate reached 6.87%, 8.46 p.p. above that recorded in the same period of 2009. This behavior is mainly due to IPA-DI and the National Cost of Construction Index (INCC) whose changes up to August reached 8.35% and 6.23% respectively, against -3.96% and 2.63% for the same period of previous year. Additionally, IPC-Br grew by 3.34%. The sharp IPA-DI increase derives either from the behavior of agricultural prices, for which the twelve-month change reached 6.15% in August, and from manufacturing prices with an increase of 8.91% in the same period.

Inflation measured by the change in the INCC-DI shows signs of cooling off in the second half of 2010, after registering high rates throughout the first half. Actually, after monthly rates higher than 1% in May and June, INCC recorded increases of 0.44% and 0.14% in July and August. Still, twelve-month INCC change continues to increase given the strong reduction occurred after the crisis of 2008/2009. Indeed, after peaking in November 2008 (12.33%), twelve-month INCC change decreased to 3.25% in December 2009, and has been increasing consistently since then, reaching 6.86 % in August.

After growing 5.1% in 2008 and receding slightly in 2009 (-0.2%), the economy returned to expand significantly this year with growth of 2.7% in the first quarter compared to the previous quarter – the highest level since the second quarter of 2004 and the second highest since the fourth quarter of 1996. According to seasonally adjusted data by the Brazilian Institute of Geography and Statistics (IBGE), GDP increased 1.2% in the second quarter of 2010, indicating that the Brazilian economy returns to the growth path prevailing before the worsening of global economic crisis of 2008/2009. This pace is consistent with growth rates evaluated as sustainable in the long term. From the supply side viewpoint, manufacturing sector presented its fifth consecutive period of expansion, growing by 1.9% in the second quarter (after increasing by 4.0% in the first quarter) using seasonally adjusted quarterly data. The service sector, whose growth rates are less volatile, expanded 1.2% in the second quarter, after increasing by 1.8% in the previous quarter. Agricultural production which displayed the second highest growth among the three sectors, grew by 2.1% in second quarter (3.8% in the first), showing significant recovery. In general, the strength of domestic demand – based on credit and employment expansion – was the most important factor for the continued expansion of the economy.

From the viewpoint of aggregate demand, after decreasing 9.8% in 2009, the Gross Fixed Capital Formation (GFCF) grew by 7.3% and 2.4% in the first and second quarter of 2010, compared to the previous quarter, according to seasonally adjusted data by IBGE. Household spending – the most important component of aggregate demand – rose 0.86% in the second quarter in same basis of comparison, after growing 1.4% the previous quarter. Government spending displayed a robust growth of 2.1% in the second quarter, after growing by 0.8% in the first quarter. On the other hand, the external sector contributed negatively to GDP growth in second quarter (-3.6 p.p.), with imports increasing by 38.8% (contribution of -4.4 p.p.) and exports 7.3% (contribution of 0.8 p.p.). Based on recent developments, a plausible scenario in the coming quarters assumes that domestic demand will continue to evolve favorably and external sector will contribute negatively to GDP growth.

The strength of demand aligns with the strong performance of retail sales, despite some stability in the margin. After having grown 9.1% in 2008 and receded to 5.9% in 2009 due to the effects of the crisis of 2008/2009, real retail sales increased by 11.5% through June, according to IBGE. In twelve months up to June, sales increased 9.3%, highlighting "supermarkets, food, beverages and tobacco" (10.1%) and "furniture and appliances" (12.7%). The expanded retail sales – which includes "vehicles, motorcycles, parts and spares" and "construction material", sectors more sensitive to credit conditions – has also performed positively, growing 10.6% in twelve months up to June, boosted by sales of "vehicles, motorcycles, parts and pieces", which posted growth of 14.1%. Copom assesses that retail sales should continue to display positive results, but with some accommodation over the coming quarters, driven, among others, by the expanding employment and by the household credit dynamism.

The average unemployment rate, which had been consistently falling from 2006 (10.0%) to 2008 (7.9%) and increased in 2009 (8.1%), returned to recede sharply in 2010. In fact, the average rate stood at 7.3% up to July, 1.2. p.p. lower than that observed in the same period of 2009. In July, the seasonally adjusted unemployment rate by the Central Bank reached 7.0% for the third consecutive month, remaining at historically low levels. According to IBGE, the average real earnings – which grew over the past three years, despite the effects of economic crisis – continue to increase in 2010 with expansion of 2.1% up to July. Additionally, the average number of persons working, which had increased in 2007 (2.6%), 2008 (3.4%) and 2009 (0.7%), returned to grow strongly in 2010, an increase of 3.5% in the first seven months of the year. Thus, real wage bill – important factor driving aggregate demand in recent years – continues to expand in 2010 (5.7% over the year up to July) mainly due to job creation. As per National Confederation of Industry (CNI) data, employment in the manufacturing industry, after decreasing in 2009 due to the crisis, returned to robustly grow in 2010, increasing 4.8% this year up to July. Concerning the evolution of formal employment, after intense falls at the end of 2008 and the beginning of 2009, job creation returned to expand quite robustly, according to Ministry of Labor and Employment (MTE) data, with the creation of 1.7 million positions this year up to July, the best results for the historical series started in 1985. Service sector, manufacturing and construction industry and commerce created in this period, 552,000, 436,000, 268,000 and 172,000 new positions respectively. In twelve months up to July, the aggregate expansion reached 2.2 million positions, the best result for the historical series.

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 2008/2009, credit conditions returned to more favorable patterns and thus boosted the volume of financing. Financial system nonearmarked credit to households grew by 16.6% in July compared with the same month of last year. In the same period, credit to housing, whose operations are mainly based on earmarked resources, grew 51.1%. Overall, credit expansion to households has occurred in a context of declining delinquencies.

After being severely affected by the crisis of 2008/2009, investment performance has been significantly positive since the second half of 2009. Actually, the rapid recovery of the domestic economy – partly due to appropriate and timely adoption of monetary, fiscal and credit measures with countercyclical effects - and the abandonment 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 7.7%, 7.1%, 7.3% and 2.4% in the third quarter of 2009 to the second of 2010 respectively, compared to the preceding quarter. In general, it is likely that the current expansion of investment will be boosted by several projects related to oil sector (pre-salt oil reserves), sports and infrastructure, largely led by public sector.

The volume of credit to corporations grew 17.8% in July, compared to the same month last year, reaching R$846.8 billion, including nonearmarked and earmarked operations. Such behavior was favored by loan and financing done through the National Bank of Economic and Social Development (BNDES) system, which totaled R$322.2 billion up to July 2010, expanding by 30.2% over the same period in 2009. Concerning capital market, the volume of initial public offerings of shares registered in the Securities and Exchange Commission (CVM) reached R$27.4 billion in the twelve months up to August. Offerings of real estate and construction companies have been worthy of notice in 2010. Additionally, the issuances 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 September 2009 to August 2010.

Regarding the external sector, the trade balance after displaying stability in 2009 (US$25.3 billion from US$24.9 billion in 2008), has receded in 2010. Up to August, trade surplus reached US$11.7 billion against US$19.9 billion for the same period last year, a decrease of 41.2%. This result comes from exports amounting US$126.1 billion and imports US$114.4 billion, values respectively 28.8% and 46.6% higher than those recorded in the same period in 2009. In this context, the drop in the trade balance comes mainly from the stronger increase in imports relative to exports, in line with the fact that the domestic economy is expanding by rates higher than those observed in substantial part of our trade partners.

After decreasing 2.5% in 2008 – the first drop since 1996 – and 10.7% in 2009, quantum of exports grew again in 2010 (7.3% up to July). The slow and gradual recovery in external demand also positively impacted the average price of exports, which rose 18.3% over the year up to July, after declining 13.4% in 2009. Additionally, after contracting 17.4% in 2009, quantum of imports increased by 42.1% up to July, reflecting the acceleration in domestic activity, particularly in the manufacturing sector, which has higher propensity to import. After falling 10.5% in 2009, the average price of imports showed a small increase up to July (2.1%).

The remittance of profits and dividends contributed to increase the twelve-month current account deficit that moved from US$36.1 billion in April to US$43.8 billion (2.2% of GDP) in July. Twelve-month foreign direct investments amounted to US$26.7 billion (1.4% of GDP) up to July 2010.

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. After registering growth for sixteen consecutive months up to April, IBC-Br remained stable in the following two months. The evolution of the IBC-Br, as well as other activity indicators, indicated that the economy is stable in the second quarter, in contrast to the intense pace seen in the first quarter, which somehow was confirmed by the national accounts released by the IBGE. The prospects for the second semester indicate economy should continue to grow at a pace evaluated as sustainable in the long run.

Industrial production increased 0.4% in July compared to June according to seasonally adjusted IBGE data, after falling three months in a row (0.9%, 0.2% and 1.1% in April, May and June, respectively). It expanded 15.0% this year up to July, and 8.3% in twelve months. Manufacturing and mining industries grew by 15.0% and 15.4% respectively through July, and 8.3% and 7.4% in the last twelve months, respectively. The sectors most dependent on credit such as automotive and construction, and consequently the most affected by the financial crisis of 2008/2009, show recovery and they already exceed production levels prevailing before the crisis.

The seasonally adjusted inventory level indicator from the Getulio Vargas Foundation (FGV) which had receded to 78.5 in January 2009, the lowest level since August 2003 according to seasonally adjusted FGV data, has been recovering since then. In August, the indicator reached 85.0 after reaching 92.5 in April. Thus, the average level of the indicator in 2010 up to August is only 0.9 point below that recorded in 2007, the year before the outbreak of the global crisis. It shows that the process of adjusting inventory levels in manufacturing ended. Moreover, August registered the second consecutive fall in the indicator, which is 7.5 points below the recent peak (92.5 in April). These factors reinforce the perception that there was some industrial activity stabilization in recent months, albeit at high levels. For the next few quarters, Copom assess that industrial production should continue to grow but at a lower rate than had that prevailed earlier in the year.

After reaching 86.7% in June 2008, the seasonally adjusted Level of Utilization of Installed Capacity (Nuci) computed by FGV moved down to 77.9% in February and March 2009 due to the 2008 crisis. This indicator had significantly risen since then, but, after reaching 85.5% in June 2010, the index receded to 84.9% in August, close to the level 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, absorption is growing strongly and it expanded 31.0% up to July over the same period in 2009. This growth results from an increase of 31.3% in imports of capital goods and of 28.6% in domestic production of those goods. It is also worth noting the production of inputs for construction increased 15.2% in the same basis of comparison. After moving down from 125.9 in June 2008 to 71.1 in December, the seasonal adjusted FGV's Economic Outlook Survey indicator of global demand for the manufacturing industry surpassed 100 points in September 2009 (100.5). However, after reaching 120.9 in June 2010, it receded to 113.8 in August, in line with the stabilization of industrial production observed in recent months. Nevertheless, remaining above 100, the indicator shows that a larger number of companies qualify the demand for its products as strong, compared to those that judges the demand as weak. In summary, the data points out the utilization rates are still high, although there are signs of stabilization, which may reflect the maturity of investments.

In international markets, the volatility and risk aversion have remained high since the last *Report*, although they have been reducing at the margin, and liquidity remains limited, despite the reduction of the perceived risks of systemic crisis. Concerns about sovereign debt of European countries and with the slowdown in China are still present, while concerns about the sustainability of the recovery of the U.S. economy have increased. Still, the prices of certain commodities and Brazilian assets have risen and, in general, the prospects for external financing of the Brazilian economy remain favorable.

Signs of slow and uneven recovery in the global economy have continued to build up since the last *Report*. The recovery of the economies has been so markedly asymmetrical that the recovery of the global economy as a whole continues to be led by emerging economies. Since the last *Report*, evidence accumulates that the intensity of this process may be lower than that expected in a scenario where the dynamism for 2011 in the G3 economies (U.S., Europe and Japan) becomes less likely – the baseline scenario Copom works with. More recently, the U.S.

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

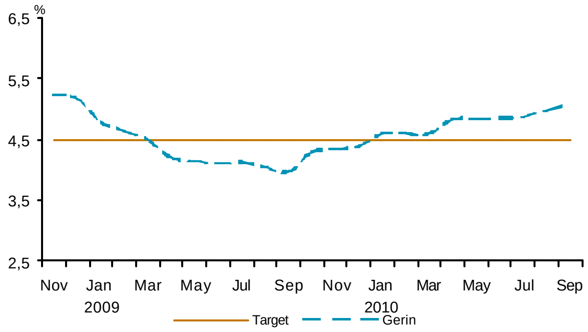
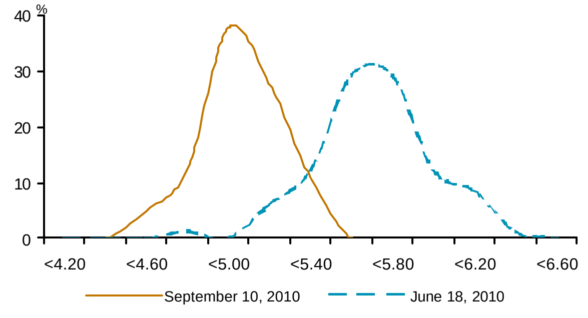


Figure 6.2 – Dispersion of inflation expectations for 2010

Relative frequency



economy registers signs of weakening, suggesting that recovery will be slower than previously anticipated, even not completely ruling out the possibility of reversal. The Japanese economy, in turn, continues to display slow growth. By the way, the Euro Area recovery proves quite uncertain, in addition to be slow and uneven across the economies, partly due to fiscal consolidation and the difficulties experienced by the credit market. Still, the German economy, the most important in Euro area, shows certain dynamism. Thus, the prospects for the global economy remain uncertain since the publication of the last *Report*, although the geographic balance of risks appears to have changed. On another front, the path of price indices shows reduction in inflationary pressures for some relevant economies, while concerns of deflation remain for others. In this context, the probability of some disinflationary influence of external environment on domestic inflation remains high, whereas uncertainty about the behavior of asset and commodity prices still persists in the context of substantial volatility in international financial markets.

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, partly due to increasing concerns about the impact of the prospect of global growth lower than was anticipated on the demand. 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 international oil prices impact 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 recent drop in the prices of several metal commodities, reflecting, as said, new concerns about the global economic recovery, especially for the U.S. economy. On the other hand, agricultural commodity prices have been very volatile. In some cases, such as corn and wheat, prices have risen with some intensity in recent weeks, partly reflecting adverse weather in major producing regions.

The expectations for GDP growth in 2010 have changed since the release of the last *Report*, moving from 7.06% to 7.42%, partly reflecting the results of the national accounts for the second quarter of this year, that surprised positively some analysts. During this period, inflation expectations were reduced for 2010, while they increased for 2011. They were at 4.97% and 4.90% for 2010 and 2011 respectively at the cutoff date of September 10, compared to 5.61% and 4.80% for 2010 and 2011, at June 18. Broadly speaking, there has been less dispersion around the central tendency of inflation expectations for 2010 since the release of the last *Report*. Figure 6.2 shows, as expected, 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 slow recovery of the global economy, with possibility of reversion, and moderate domestic expansion, combined with lower inflation projections relative to the latest *Inflation Report*.

The balance of risks associated with the inflation outlook has improved since the release of the latest *Inflation Report*. On the domestic side, the risk related to the imbalances between the growth of domestic absorption and the growth of aggregate supply is still in place, but lower than before. As a matter of fact, the latest data on economic activity suggest that growth has slowed down relative to the recovery period in the aftermath of the crisis. Additionally, the expected expansion of the domestic demand is more aligned with the growth in the long-run equilibrium. The change in the monetary policy stance since April 2010 and the end of fiscal stimuli have both contributed to a more benign scenario for inflation. It is important to mention that the strong growth observed in the second semester of 2009 and first quarter of 2010 in part restored the output levels prior to the crisis. In particular, the level of industrial production is still similar to that before the 2008/2009 crisis. Also, the robust growth of investment since the recovery phase has helped to expand the productive capacity of the economy. On the other hand, the main domestic risk stems from overheated factor markets – especially the labor market – which are operating with little idle capacity. The related inflationary risk may be aggravated by the existence of mechanisms that tend to reinforce the persistence of inflation.

On the external front, the latest *Inflation Report* highlighted two main risks. The first was associated with the possibility of significant rise in commodity prices, mainly if not partially offset by changes of the exchange rate in the opposite direction. Such a risk still remains but may be tilted to the downside in the short run due to less favorable conditions regarding the global economic recovery. The rise in commodity prices has not been so widespread throughout the year, and there has been considerable price dispersion amongst the various commodity groups, with some of them rising more significantly in recent months. In short, the prospective scenario for commodity prices – including oil prices – remains highly uncertain, since it depends on the recovery of the global demand, which has not been synchronized across countries, as well as on the dynamics of the world supply. However, commodity prices are more likely to rise than to remain stable in the medium and long terms, as the global recovery becomes stronger. In any case, the analysis of the potential inflationary effects due to rising prices of raw materials must also take into account the implications for Brazilian asset prices. For instance, over the past years, there has been a negative correlation between the international price of commodities and some of the Brazilian asset prices. It is worth emphasizing, however, that if the balance of payments experiences relevant shifts over the medium run that negative correlation may become weaker.

The second risk highlighted in the latest *Inflation Report* was associated with the possibility that the ongoing fiscal crisis in some European countries, and the resulting deterioration of the global financial conditions, could worsen considerably. This risk, however, has decreased since the release of the latest *Inflation Report* for several reasons, including actions taken by many European countries in order to improve the financial accounts of the public sector; support given by multilateral institutions; and the conduct of stress tests in many banks of the region. In any case, finding a final solution for the fiscal issue is a challenging task as it requires policy actions for a prolonged period of time. Furthermore, the agreement towards stronger bank capital requirements reached at the Basel Committee on Banking Supervision (BCBS) also helps to improve the global financial conditions.

The latest *Inflation Report* also highlighted two alternative scenarios regarding the speed and magnitude of the global economic recovery. In the first, the world economy would recover slowly, and market participants would remain overly cautious about the solvency of some European countries, whereas in the second scenario, the recovery would be faster than anticipated. The recent signs suggest that the first scenario is more likely to materialize, which became the main scenario considered in the current *Report*. The *Inflation Report* of June 2010 pointed out that the first scenario would have an ambiguous effect on the domestic inflation, since it would include higher risk aversion and uncertain financial conditions. The main scenario considered in this *Report* indeed envisages slower global recovery, but without deterioration of the financial conditions. Therefore, the net effects on domestic prices tend to have a disinflationary bias.

The main scenario envisages several transmission mechanisms to domestic prices. The slower global recovery helps to contain the domestic aggregate demand through the fall of Brazilian net exports, thus reducing inflationary pressures, in particular in the tradable goods sector. At the same time, the slow recovery contributes to a lower pressure on commodities prices. On the other hand, a deterioration of net exports in the medium term may have a negative impact on the sustainability of some Brazilian asset prices. Furthermore, lower global growth may also have a negative effect on the confidence of entrepreneurs and consumers, even though such an effect is quite difficult to measure.

As highlighted before, the risk associated with the imbalances between domestic absorption and aggregate supply has diminished, in part due to the change in the monetary policy stance since April 2010. It is important to mention that the effects of monetary policy on aggregate demand and output occur faster than on prices. Indeed, the recent signals about economic activity, including retail sales, inventories and manufacturing production, reveal slower growth relative to that occurred at the beginning of the year. We should also stress the important contribution of the excess of global installed capacity (supply) to the smoothing of the adjustment of domestic conditions, as well as the prospects for the maintenance or even the intensification of that external contribution for the next quarters. In a different front, after significant contraction in the fourth quarter of 2008 and first quarter of 2009, investment has grown faster than GDP. As a result, the investment rate – the ratio of the gross formation of fixed capital (GFFC) to GDP – has recovered vigorously, even though its level is still lower than that prior to the 2008-2009 crises. After strong acceleration during 2009 and early 2010, the rate of capacity utilization has reached more stable levels, as a result of the moderation of aggregate demand growth and the investment recovery. Lastly, it is important to mention that the high GDP growth rates expected for 2010 in part reflect the carry-over effects associated with the growth rates observed in 2009 and first quarter of 2010.

The outlook for the domestic economic activity remains favorable, with more moderation when compared to that observed at the beginning of the year, as mentioned before. This positive assessment is based on several factors: there are signs of moderation in the growth of credit to both households and firms; confidence of consumers and entrepreneurs hit historically high levels, but is growing moderately at the margin; and the recent behavior of inventories in some industrial sectors. Additionally, it is worth pointing out the strong labor market, the remaining effects of fiscal stimuli and of state-owned banks' policies, and the global economic recovery, in a lower-than-expected pace.

The labor market conditions pose an important risk to the materialization of the main scenario. Vigorous employment growth resulted in the lowest unemployment rates since the beginning of the new labor market survey in March 2002. Average real wages have steadily grown since the beginning of 2010, after some oscillation in 2009. The risk that such tight labor market conditions pose to the inflation outlook is that nominal wages start to grow faster than labor productivity, which, in a context of heated demand, tend to be transmitted to consumer prices. Both the theory and the international experience suggest that moderate wage expansion is a key element to achieve a macroeconomic environment with stable prices.

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. Despite the fact that, by Brazilian standards, inflation rates have been relatively low in recent years, they still encourage feedback mechanisms as they do not correspond to the usual concept of price stability. Overall, 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 terms of fiscal policy, the economic recovery led by the expansion of domestic demand, as well as the end of tax breaks implemented during the crisis help to create the necessary conditions for improving the fiscal accounts. Based on the information available so far, and provided that the primary surplus remains compatible with 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.

Another risk that must be monitored is the behavior of wholesale prices, which have increased significantly in the recent past and may put upward pressures on consumer prices. In fact, the available evidence suggests that wholesale prices have lagged effects on consumer prices, as highlighted in a box of the March 2010 *Inflation Report*. Therefore, the recent increase in wholesale prices has yet to affect CPI inflation. As highlighted in previous *Inflation Reports*, the Committee assesses that the pass-through from wholesale prices to consumer prices depends, among other factors, on the current and prospective demand conditions, exposure of each sector to foreign and local competition, as well as on price setters' inflation expectations.

The developments in the credit market must also be monitored, not only because of its impact on the aggregate demand and hence on inflation, but also because of the underlying macroprudential risks. The Brazilian credit market has showed considerable dynamism in the recent past, as illustrated by the steady rise in the credit-to-GDP ratio. As highlighted in a box of the June 2010 *Inflation Report*, this credit market deepening has increased the effectiveness of monetary policy. Copom assesses that the moderation of the credit market expansion, in particular of the ear-marked credit, is a key element to a timely materialization of a benign inflation scenario. Regarding the macroprudential risks, it is worth mentioning that the strong credit growth has been accompanied by falling delinquency rates, which is in part a result of the business cycle situation.

Copom recognizes the presence of short-run inflation risks, such as the reversion of falling food prices observed in recent months. If price changes are caused by supply shocks, and despite the fact that is recognizably difficult to identify the nature, intensity and duration of such shocks, monetary policy must act to prevent their propagation, i.e., the second-round effects. Although the materialization of the food price shock may impact negatively price setters' expectations, in principle, we should not overestimate this risk since an inverse movement did not occur when food prices declined. Expectation changes reflected essentially adjustments arising from forecast errors. We should admit that the materialization of the shock in the current quarter will likely impact consumer prices mainly in the last quarter of this year. Anyway, even taking into account this and the other risks mentioned before, the Committee assesses that the convergence of the inflation to the target tends to materialize. This assessment takes into account that there are lags in the monetary policy transmission mechanisms, and that the monetary policy tightening initiated in April 2010 has not yet fully affected output and inflation. On the other hand, the Committee assures that, if the main prospective scenario does not materialize, the monetary policy stance must be adjusted accordingly as to ensure that aggregate demand and aggregate supply expand at the same pace. In other words, if inflation does not converge to the central target set by the National Monetary Council (CMN), monetary policy must act upon the price dynamics in order to bring inflation back to its target.

The intensity and frequency of the shocks that have hit both the global and the domestic economy in the latest years pose additional challenges to the assessment of the prospective scenario. The Committee recognizes that the uncertainties surrounding the current macroeconomic environment are unusually large. In such an environment, the risks to the materialization of a benign scenario for inflation are mainly domestic, including those associated with the expansion of the domestic demand in a context of intense resource utilization. The rise of real wages in several sectors and the large increase of wholesale prices in the recent past illustrate some of the domestic risks. However, as mentioned before, such risks have tilted to the downside recently and there are signs that the economy has shifted to a more sustainable growth path, more consistent with the long-run equilibrium. As a result, the impact of demand pressures and the high level of resource utilization on the balance of risks for inflation tend to weaken.

In short, since the latest *Inflation Report* there have been lower risks to the materialization of a benign scenario for inflation, in which the inflation rate would consistently converge to its target. The end of the substantial policy stimuli introduced during the world financial crisis of 2008-2009 and, in particular, the monetary policy tightening implemented since April 2010 in part explain the more favorable balance of risks. Furthermore, the slow economic recovery of the G3 economies (United States, Europe and Japan) also helped to improve the balance of risks. As mentioned before, the influence of the world economic outlook on the domestic inflation reveals a negative inflation bias.

In light of these considerations, the Committee unanimously decided to increase the Selic rate from 10.25% p.a. to

10.75% p.a. in the July meeting and keep it at this level in the August-September meeting. Even though the Committee does not expect that the inflation observed in the latest months will persist in the near future, it works with the maintenance of the improvement in the balance of risks that has taken place since the July meeting. In such a context, the Committee assesses that, at this moment, keeping the interest rate at its current level creates the adequate conditions for the convergence of inflation to its target.

6.3 Inflation forecasts

According to traditionally adopted procedures, and taking into account the available information up to the cutoff date of September 10, 2010, the baseline scenario assumes the exchange rate remains unchanged over the forecast horizon at R$1.75/US$, and the target for the Selic rate stays at 10.75% p.a. – the level set by the August/September Copom meeting – against R$1.80/US$ and 10.25% p.a. considered in the June *Inflation Report*. The projection in the baseline scenario for the change, in 2010, of the set of regulated and monitored prices stands at 3.6%, the same value considered in the last *Report*. This projection is based on the hypotheses of stable prices for gasoline and bottled gas; increase of 3.7% 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, projection of the regulated and administered prices, in the baseline scenario, stands at 4.4% for 2011 and 4.5% for 2012, the same values used in the June 2010 *Report*.

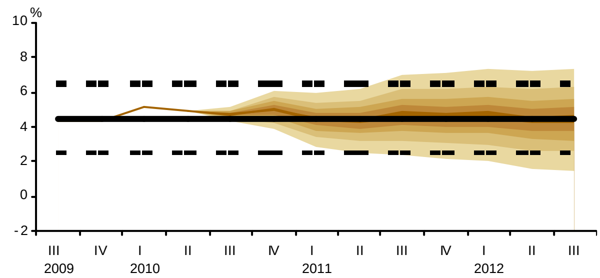
The market scenario, on the other hand, is based on data from the expectations survey carried out by Gerin with a representative group of institutions up to the cutoff date. In this scenario, average exchange rate expectations decreased in comparison to the values released in the June *Inflation Report*. For the last quarter of 2010, these expectations moved from R$1.81/US$ to R$1.77/US$, and for the last quarter of 2011, from R$1.86/US$ to R$1.81/US$. For the third quarter of 2012, average survey expectations project an exchange rate of R$1.86/US$. The average expectation about the Selic rate, in general, decreased in comparison to the values presented in the last *Report*. For the last quarter of 2010, it moved from 11.81% to 10.75% p.a., while for the last quarter of 2011, it was kept at 11.75% p.a. For the third quarter of 2012, the projection for the average Selic rate is 10.86% p.a. 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 (10.75% p.a.), of 127 b.p. and 128 b.p., in the last quarter of 2010 and 2011, respectively. Additionally, the market scenario assumes changes for the group of regulated prices of 3.7% in 2010, and of 4.5% in 2011 and 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, reduced by up to 0.90 b.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 (September 10, 2010), projections were constructed for the IPCA inflation accumulated over four quarters, consistent with the baseline and market scenarios interest and exchange rate paths.

Figure 6.3 – Projected IPCA-inflation with interest rate constant at 10.75% 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 10.75% p.a. (Baseline scenario)
(Baseline scenario)

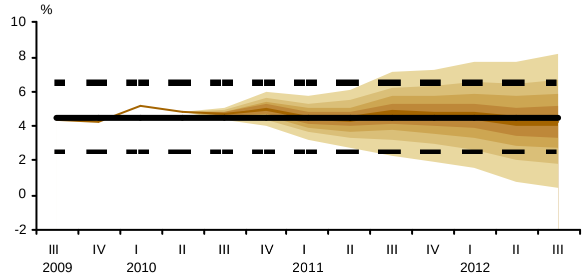
Year	Q	Probability Interval						Central
		50%						
			30%					
				10%				projection
2010	3	4.6	4.6	4.7	4.7	4.8	4.9	4.7
2010	4	4.5	4.7	4.9	5.1	5.2	5.4	5.0
2011	1	3.8	4.1	4.3	4.5	4.8	5.1	4.4
2011	2	3.6	3.9	4.2	4.5	4.8	5.1	4.4
2011	3	3.7	4.1	4.5	4.9	5.2	5.6	4.7
2011	4	3.6	4.0	4.4	4.8	5.2	5.6	4.6
2012	1	3.6	4.0	4.5	4.9	5.3	5.7	4.7
2012	2	3.2	3.7	4.2	4.6	5.0	5.5	4.4
2012	3	3.2	3.7	4.2	4.6	5.1	5.6	4.4

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

The central projection associated with the baseline scenario shows inflation of 5.0% in 2010, a decrease of 0.4 p.p. in comparison to the projection presented in the June *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 target until the last quarter of 2010 and fluctuates around this value in the following quarters. According to data shown on Table 6.1, the projection for twelve-month accumulated inflation moves from 4.7%, in the third quarter of 2010 to 5.0% in the fourth quarter of 2010. The respective projections for 2011 moves from 4.4% in the first quarter, reaches 4.7% in the third quarter and ends the year at 4.6%. In this scenario, the associated projection for the first quarter of 2012 slightly increases to 4.7%, but decreases to 4.4% in the second and third quarters of 2012. 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, as well as the recovery of the primary surplus. According to the baseline scenario, the estimated probability that inflation for 2010 will breach the upper tolerance level of the target is negligible. For 2011, this probability is close to 10%.

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%		30%	50%	Central projection
2010	3	4.6	4.6	4.7	4.7	4.8	4.9	4.7
2010	4	4.6	4.8	4.9	5.1	5.2	5.4	5.0
2011	1	3.9	4.2	4.4	4.6	4.8	5.0	4.5
2011	2	3.7	4.0	4.3	4.5	4.8	5.1	4.4
2011	3	3.7	4.2	4.5	4.9	5.3	5.7	4.7
2011	4	3.5	4.0	4.4	4.8	5.2	5.7	4.6
2012	1	3.3	3.9	4.4	4.8	5.3	5.8	4.6
2012	2	2.9	3.5	4.0	4.5	5.1	5.7	4.3
2012	3	2.7	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 – June 2010 *Inflation Report* projections

Period	Baseline scenario	Market scenario
2010 II	5,0	5,0
2010 III	5,1	5,0
2010 IV	5,4	5,3
2011 I	4,9	4,8
2011 II	4,8	4,6
2011 III	5,0	4,8
2011 IV	5,0	4,6
2012 I	5,1	4,7
2012 II	4,8	4,3

In the market scenario, the inflation projection for 2010 is 5.0%, equal to the respective baseline scenario projection, representing a decrease of 0.3 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, following a similar trajectory of the baseline scenario, fluctuate above the central value of the target until the end of 2010, but recede along 2011, finishing the year at 4.6%. The projection for the first quarter of 2012, within this scenario, is 4.6% and moves to 4.3% in the third quarter. According to the market scenario, the estimated probability that inflation for 2010 will breach the upper tolerance level of the target is negligible, as well as in the baseline scenario. For 2011, this probability is close to 12%.

Opposite to shown in the last *Report*, the projected dynamics for both scenarios are close to each other along 2011, reflecting the effect of the difference between the interest rate trajectories almost entirely being offset by the respective exchange rate paths. Along 2010 there is nearly no difference between the two scenarios, due to the equality of interest rate trajectories considered in both scenarios and the proximity of exchange rate paths. Another aspect to highlight is that, in general, inflation projections decreased in comparison to figures in the last *Report* and, this way, are closer to the central target.

Comparing the trajectories shown in this *Report* with those released in the previous *Report*, whose projections are shown on Table 6.3, in the baseline scenario, it is apparent that there was a decrease of the projections in the last two quarters of 2010, partially reflecting the decrease of inflation expectations for the current year and inflation rates in recent months lower than the respective projections presented in the June *Report*. Regarding the market scenario changes in projections also reflect these movements. In respect to 2011, in general, it is also shown a decrease in the inflation projections for both scenarios, in respect to those presented in the June 2010 *Report*, but more intense in the baseline scenario. For the first two quarters of 2012, there is a similar dynamics in projections comparison.

Figure 6.5 shows the path of twelve-month accumulated inflation, according to the baseline and market scenarios, up to the third quarter of 2012, as well as the target trajectory. The figures are actual twelve-month inflation until August 2010, and, from September on, projections according to the two scenarios. The projections fluctuate, in both scenarios, above the target in the third and fourth quarters of 2010;

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

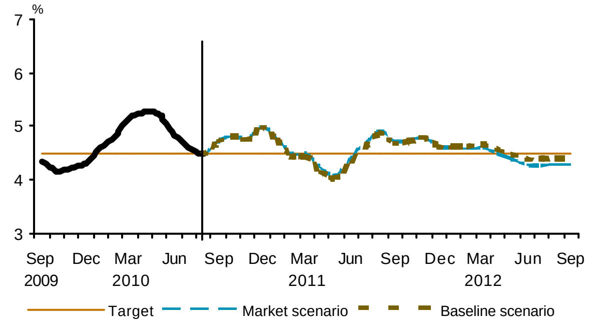
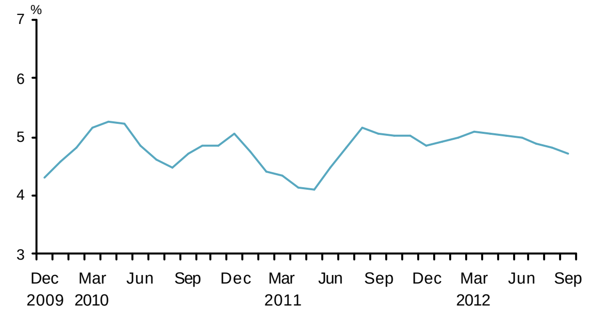


Figure 6.6 – Inflation forecast: VAR models

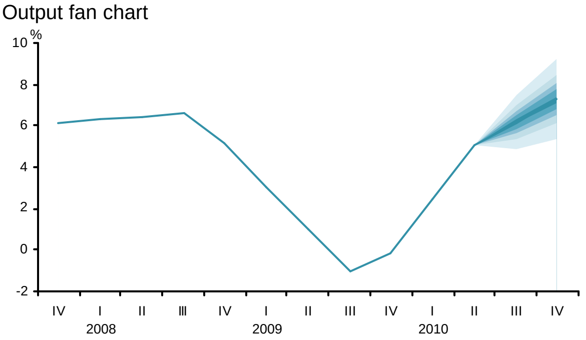


Note: accumulated inflation in 12 month (% p.a.).

Average forecast generated by the VAR models.

Figure 6.7 – Projected GDP growth with interest rate constant at 10.75% p.a. (Baseline scenario)

Output fan chart



and tend to figures close to the central target along 2011 and the first quarters of 2012.

The average forecast generated by the Vector Autoregression models (VAR) for the twelve-month accumulated inflation is presented in Figure 6.6. By August 2010, the values are actual twelve-month inflation and, as of September, 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 decreased along the third and fourth quarters of 2010, in comparison to those presented in last *Report*. Along the first semester of 2011, the forecasts decrease in respect to those of 2010, but increase in the third quarter of 2011, and afterward converge 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%; the same projection presented in the June 2010 *Inflation Report*.