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 September 2010. The chapter also presents the analysis of the inflation prospects up to the fourth quarter of 2012 and of Gross Domestic Product (GDP) growth up to the end of 2011. Inflation projections are presented in two major scenarios. The first scenario, called the baseline scenario, assumes that the Selic rate will remain unchanged at 10.75% per year over the forecasting horizon, the level defined by Copom at its most recent meeting, held on December 7 and 8, and that the exchange rate will remain at R$1.70 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 the Central Bank's Investor Relations 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 December 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 change in the Broad National Consumer Price Index (IPCA), after reaching 4.31% in 2009, 1.59 percentage points (p.p.) lower than in 2008, rose again in 2010. In the year up to November, the IPCA index increased by 5.25%, a rate 1.32 p.p. above that recorded in the same period last year. Twelve-month inflation increased from 4.22% in November 2009 to 4.49% in August, and 5.63% in November this year, above the center of the inflation target (4.5%). Thus, although inflation receded from June to August, inflation dynamics showed significant deterioration in recent months.

The increase in inflation in 2010 was determined by the change in market prices. In fact, while regulated prices rose 3.39% in the twelve months up to November, market prices increased by 6.59%. Within the set of market prices, the price change for tradable goods (6.04%) stand out, influenced by the recent inflation dynamics of food items, and whose level is close to the inflation observed in non-tradable items (7.09%). Showing the dynamism of domestic demand, service sector inflation has remained at a level higher than that for market prices. In fact, in the twelve months up to November, the change in service prices reached 7.36% (against 6.42% in the same period of 2009). In turn, the change in regulated prices has contributed positively to the inflation dynamics in 2010, for it has been bellow the center of the target since April.

As with headline inflation, the three core inflation measures computed by the Central Bank show a rise in inflation in 2010 and, in particular, have increased in the last three months. 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 5.30% in November 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 4.38% in December 2009, reached 5.52% in the twelve months up to November. Additionally, inflation measured by double weight core measure (IPCA-DP), which reached 6.06% in December 2008 and had fallen to 4.73% twelve months later, reached 5.32% in November. It should be noted that the three core measures are above the center of the target and have presented less favorable dynamic in the recent past.

Additionally, it should be noted that after reaching 58.85% in November 2009, the IPCA diffusion index advanced to 67.19% in November 2010 – still bellow January 2010

(68.75%). Note that, with the diffusion index at that level, the evidence supports the hypothesis of acceleration of prices.

After a sharp reduction in 2009 (-1.43% versus 9.10% in 2008), broad inflation, measured by the General Price Index (IGP-DI), has reached 10.88% in the year up to November 2010. Similarly, twelve-month IGP-DI inflation attained 10.75% in November 2010, after receding -1.76% in the same period of 2009. The strong acceleration in broad inflation in 2010 is mainly due to IPA-DI, the main component of the index, which registered 13.29% change in twelve months up to November. By origin, agricultural products registered 23.86% change, and industrial products 9.90%. The two other components of IGP-DI, the Consumer Price Index (IPC-DI) and the National Cost of Construction Index (INCC) changed 5.73% and 7.16%, respectively, in the same base of comparison. With respect to the change in twelve months, the INCC recorded increase in all eleven months in 2010 up to November, standing out the 5.48% variation of materials, equipments and services, and 9.01% of labor cost. Therefore, all components of the IGP-DI record significant inflation. As emphasized in previous *Reports*, the Copom evaluates that the effects of wholesale prices over consumer price inflation will depend, among other factors, on the current and prospective demand conditions, the exposure of each sector to external and domestic competition, as well as on the price setters' expectations for the future inflation path.

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 all months from January 2009 to April 2010, IBC-Br remained stable from May to August (with only a 0.2% change), but has resumed its growth with 0.7% change in September, evidencing the period of more intense receding of economic activity has been exhausted.

Industrial production increased 0.4% in October compared to September according to seasonally adjusted data by the Brazilian Institute of Geography and Statistics (IBGE). The three month moving average of industrial production registered growth of 0.1% from July to October, close to the rate registered from June to September (0.2%). The reduced growth rates indicate somewhat slower industrial activity in the recent past. This contrasts with the rates of change in twelve months. In fact, in this base of comparison, industrial production in October exhibited expansion for the seventh consecutive time (11.8% versus 11.2% in September). Comparing with December 2008, when industrial production registered the greatest decline after the 2008/2009 crisis, the recovery up to October summed up to 24.5%. Among the industry categories of use, in accordance with seasonally adjusted IBGE data, the greatest contribution for the change in October relative to the previous month was the 2.8% change in the production of durable consumer goods – against the slight decline in the production of semi-durable and non-durable consumer goods, intermediate goods and capital goods (-0.1%, -0.1% and -0.2%, respectively). Considering the three month moving average rates, only the consumer goods category registered growth in October, of 0.2% (0.6% in the durable sector and 0.2% in the semi-durable and non-durable sector), with reduction of 0.9% in capital goods and of 0.5% in intermediate goods. Of notice, although the indicator for activity in the capital goods industry has showed a reduction at the margin, growth in the year up to October has reached 24.0% relative to the same period in the previous year, the greatest expansion among categories of use. This attests robust investment activity, a relevant factor for economic recovery during the post-crisis period.

The rates of capacity utilization show slight decline, but remain at high levels. The low idle capacity is a result of the recent expansion in economic activity, expansion still not offset by maturing investments. In fact, the seasonally adjusted Level of Utilization of Installed Capacity (Nuci) computed by Fundação Getulio Vargas (FGV) reached 84.5% in November, versus 85.2% in October. According to data from the National Confederation of Industry (CNI), seasonally adjusted by the Central Bank of Brazil, the Nuci remained stable in October at 82.2%, versus 81.9% in September and 82.1% in August. The absorption of capital goods showed a 5.8% decrease in October with respect to the previous month. Regarding the year up to October, the increase of 29.4% evidences a slowdown in the absorption of capital goods. To a great extent, this slowdown is being determined by the external sector variables. While imports have grown 7.4% in the third quarter relative to the previous quarter (1.2 p.p. bellow its average growth rate in the four previous quarters, in accordance with seasonally adjusted IBGE data), exports have grown 0.6 p.p. above its average growth rate in the four previous quarters. The production of inputs for civil construction registered a small increase in October, 0.8% over the previous month, and 12.2% considering the twelve months up to October. The seasonally adjusted inventory level indicator from FGV reached 78.9 in January 2009, the lowest level since July 2003 (78.0). During the economic recovery, the indicator reached 103.0 in June, and receded in September (100.1) and October (99.3), remaining somewhat stable in November (101.2). In summary, the data suggests utilization rates receded a little, but remained in high levels over the last months, evidencing the small margin of idleness of industry, despite the resumption of investment.

Unlike industrial production, expanded retail sales volume presented significant growth at the margin throughout 2010. Expanded retail sales volume registered positive growth in the four months from May to August 2010, totaling 4.8% growth in the period. On the other hand, during the same period, industrial production receded 0.9% and the IBC-Br showed some stability. Thus, the slowdown of industrial activity had no parallel in retail sales; the latter's dynamism is reflected, for example, in the import of non-durable goods, up 8.1% in volume between the second and quadrimester (seasonally adjusted data by the Central Bank). For the next few quarters, retailing should continue to be bolstered by the growth of real wages, credit expansion and consumer confidence.

The latest information on GDP showed the economy growing at a slower pace than seen earlier in the year. In comparison with the same quarter in the previous year, growth in the first quarters of 2010 was 9.3%, 9.2% and 6.7%, respectively. In accordance with seasonally adjusted IBGE data, GDP increased 2.3%, 1.8% and 0.5% in the first three quarters of 2010, respectively, compared to the immediately previous quarter. On the same basis of comparison, industry grew 3.6% and 2.0% in the first two quarters, and decreased by 1.3% in the third. Similarly, agricultural production had, respectively, rates of 3.2%, 2.1% and -1.5%. The service sector was more stable, with rates of 1.5%, 1.2% and 1.0%, respectively, for the first three quarters. From the viewpoint of aggregate demand, the external sector contributed negatively to GDP growth in 2010 due to the strong growth of imports, ranging 8.8%, 5.9% and 7.4%, while exports rose 6.9%, 0.1% and 2.4%, compared to the immediately previous quarter. Among the contributions of other components of demand to GDP growth in 2010, it is noteworthy the contribution of household consumption – with greater participation in the total and growth of 1.6%, 0.9% and 1.6% – and to the Gross Fixed Capital Formation (GFCF), which increased 4.0%, 4.3% and 3.9% respectively. In sum, domestic demand, driven by credit expansion, employment and income, has been the main factor sustaining activity, and should continue to evolve positively in the coming quarters.

In fact, after having grown 9.1% in 2008 and 5.9% in 2009, real retail sales increased substantially in 2010 (11.1%) – in the year to October, according to the IBGE, in comparison with the same period last year. In the twelve months through October, sales increased 10.7%, with sharp increase in sales in the “equipment, office supplies, computer and communication” segment, (21.3%) and “furniture and appliances” (17.2%).The expanded retail sales, which includes “vehicles, motorcycles, parts and spares” and “construction material”, sectors more sensitive to credit conditions, also show strong performance. It has expanded 12.0% in the twelve months through October, driven by sales of cars and motorcycles, parts and accessories, which reached 14.1% growth, and by sales of construction material, which increased 13.9%.

The labor market has played an important role in the current cycle of the economy. Unemployment, measured by the rate of unemployment in the six metropolitan areas covered by the monthly survey by IBGE, has been receding in the last eight years. In October 2003 it was 13.0%, and in the same month of the following years, until 2010, it stood at: 10.5% 9.6% 9.8% 8.7% 7.5 %, 7.5% and 6.1%. The last rate registered in 2010, 6.1% in October, represents a historic low for the series started in March 2002. In the regional analysis, five of the six regions surveyed showed unemployment at record low in September or October this year. Also according to IBGE, the average real earnings usually received by the employed population, which was R$763.02 in October 2002, also showed favorable momentum in the last eight years, reaching record high of R$1,515.40 in October 2010, valued at 2010 prices. The total number of persons working in the six regions also showed robust growth since the beginning of the series, up from 18.1 million in October 2002 to 22.3 million in October 2010. 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 in 2010. According to figures released by the Ministry of Labor and Employment (MTE), it were created 2.41 million jobs in the year to October, a growth of 107% over the same period in 2009, the largest accumulated surplus from January to October for the historical series. Thus payroll, in real terms, reached a new record in October, expanding 10.7% compared with the same month of 2009, 13.9%, compared to 2008, and 34.2%, compared to 2002.

In addition to the increased payrolls, the availability of credit to households – largely determined by macroeconomic stability and institutional advances achieved in recent years – was an important element for sustaining growth in household consumption. After being adversely affected by the crisis of 2008/2009, credit conditions return to more favorable patterns and thus boosted the volume of lending in 2010. In the year to October, the stock of credit to households with non-earmarked resources grew 14.4%.

In the same period, housing loans, whose operations are mainly based on earmarked resources, grew 40.2%. In general, delinquency indicators have remained at levels consistent with the phase of the cycle. In fact, the share of outstanding balance with arrears of more than 90 days on the total balance of credit with non-earmarked resources and interest rate reference dropped from 5.8% in October 2009 to 4.7% in October 2010.

Despite its low share in aggregate demand when compared to consumption, high investment growth has contributed to sustain economic activity in post-crisis period. It is worth noting that from the third quarter of 2009 to the third quarter of 2010, GFCF expanded by 10.1%, 7.5%, 4.0%, 4.3% and 3.9%, respectively, in comparison with the previous quarter, in accordance to seasonally adjusted data by the IBGE. Additionally, the prospect of new large scale investment projects coordinated by the public sector, as in the oil sector (pre-salt) and infrastructure, promotes agents' favorable expectations and the continued high growth in GFCF.

The total volume of credit to corporations grew by 20.9% in October 2010, compared to the same month last year, considering non-earmarked and earmarked resources, and totaled R$901.3 billion. Credit expansion was helped by loans and financing with resources from BNDES, which amounted to R$347 billion in October 2010, an increase of 32.4% over the same period in 2009. Regarding the capital market, the volume of primary issues of shares registered in the Securities and Exchange Commission (CVM) reached R$142.6 billion in the twelve months ending in November, with the highlight of the issue of R$120.3 billion of Petrobras in September, the highest ever recorded in the Brazilian stock exchange. In turn, bond issuance (excluding emissions by leasing companies), after reaching R$6.3 billion in 2008 and R$11.1 billion in 2009, attained R$16.3 billion from December 2009 to November 2010.

As regards the external sector, the trade balance accumulated in twelve months, after presenting stability in 2009, fell in 2010, recording US$17.1 billion in November, down 33% compared with the same period the previous year, reflecting import growth has outpaced export growth.

After decreasing 2.5% in 2008 – the first drop since 1996 – and 10.7% in 2009, quantum of exports grew again in 2010, 6.2% in October 2010 over the same period last year. Foreign demand recovery, while slow and gradual, had a positive impact on the average price of exported goods, which rose 23.3% on the same basis of comparison, after declining

13.4% in 2009. In turn, quantum of imports rose 24.9% in October 2010 over the same period last year after contracting 17.4% in 2009. The average price of imported good, after falling 10.5% in 2009, increased 3.8% in October, compared with the same month of 2009.

The behavior of remittances of profits and dividends, of US$23.1 billion in the year to October, has contributed to raise the current account deficit. The accumulated deficit in twelve months increased from US$47.3 billion in September to US$48.0 billion in October, equivalent to 2.4% of GDP. In turn, foreign direct investment amounted to US$36.1 billion in twelve months to October, the equivalent of 1.8% of GDP, which resulted in external financing requirement of 0.6% of GDP.

In international financial markets, volatility and risk aversion remained high, partly fueled by increased global liquidity and the prospect that this process may eventually become more pronounced. Although the perception of systemic risk has decreased, concerns about sovereign debt of European countries and the possibility of a slowdown in China have increased and, at the same time, doubts remained about the sustainability of the recovery of the U.S. economy. Regarding commodity prices the index of the Commodity Research Bureau (CRB) is at a high level and has recently shown some stability.

As far as the pace of global economic activity is concerned, the outlook remains of a relatively slow recovery, but with a lower chance of reversal and with marked asymmetry among countries with respect to growth rate. The recovery has been led by a group of emerging countries for which the rate of expansion is anchored primarily on domestic demand growth and, in specific cases, on the export sector. The economic recovery also continued in the United States and Europe, albeit gradually and with strong regional variations. The Euro Area in particular has different situations, since doubts continue over the solvency of peripheral economies, while the pace of expansion in Germany remains quite strong. Ireland has concluded negotiations for a financial assistance package from the European Union, the International Monetary Fund (IMF) and bilateral sources, totaling 85 billion Euros. Inflation rates have remained at low levels in the G3 countries, despite economic policy actions of highly expansionist character, both on the fiscal side and on the monetary side. Since the last *Report*, United States and Japan announced new programs for monetary easing. In emerging markets, in a way, inflationary pressures have become widespread. Noteworthy was the interest rate hikes promoted by the Chinese central bank, after a long period of stability, as well as the increase in compulsory deposits requirements.

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

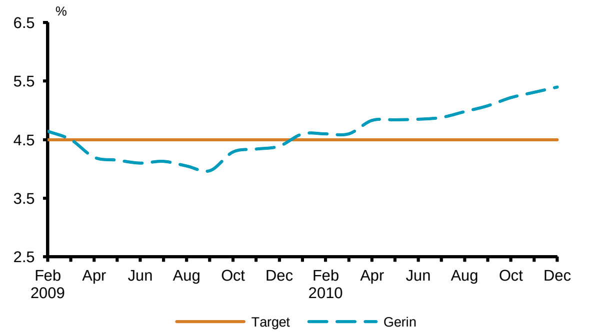
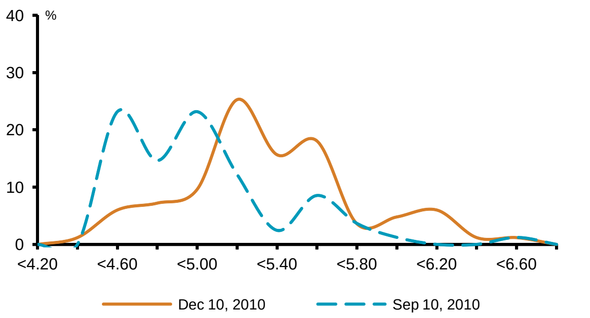


Figure 6.2 – Dispersion of inflation expectations for 2011

Relative frequency



Oil prices returned to levels above US$80. Despite the significant uncertainties inherent to forecasts over the path for oil prices, the baseline scenario adopted by Copom foresees domestic gasoline prices unchanged for 2011. It should be noted that the influence of international oil prices on domestic inflation is not transmitted exclusively through the local price of gasoline, but also via the production chain of the petrochemical industry, or the expectations channel. Among other commodities, there was sharp rise in metal prices since the last *Report*. While there is still great uncertainty about the behavior of commodities prices and assets prices in the context of volatility in financial markets and in currencies, the recent dynamics of international commodity prices may put pressure on domestic inflation in the short term.

Between September 10 and December 10, 2010, the median of market expectations for GDP growth rate this year rose from 7.42% to 7.61%. The median expectation for inflation moved from 4.97% to 5.85% (2010) and from 4.90% to 5.21% (2011). For 2012, it positions itself at 4.50%. There was also a slight increase in the dispersion of inflation expectations for twelve months ahead, with the standard deviation increasing from 0.43% to 0.46%. Overall, since the release of the last *Report*, there was less dispersion around the central tendency indicators of inflation expectations for 2010, and more dispersion for 2011, as shown in Figure 6.2.

6.2 Main scenario: associated risks and monetary policy implementation

The projections used by the Copom are based on a set of assumptions about the behavior of the main macroeconomic variables. This set of assumptions, as well as the risks associated with them, make up the main prospective scenario based on which the Committee makes policy decisions. On the whole, the prospective scenario envisages a slow recovery of the global economy, with a smaller possibility of reversion, and a moderate domestic expansion. The balance of risks associated with the prospective scenario for inflation has developed in an unfavorable way since the publication of the last *Report*. This development can be seen, for instance, in the increase in inflation forecasts that market analysts report to the Central Bank, as well as on the inflation forecasts that are presented in the next section.

On the external front, the main inflationary risk comes from commodity prices. This risk has exacerbated since the last *Report* due to the still ongoing process of increase in global liquidity.

The recent increase in wholesale prices is directly associated with the surge in commodity prices in the international market. Especially agricultural commodities witnessed a strong acceleration in prices in the September/November quarter – which changed the scenario that was presented in the last *Report* in an adverse way. To a certain extent this change had been anticipated by the Committee and, in fact, a substantial part of the increase in commodity prices has already been incorporated into consumer prices. Even so, the risk is that the pressures that are arising from the commodity markets may persist, without compensation from movements in the opposite direction in domestic assets – which in fact was what occurred in the recent episode.

The outlook for the evolution of commodity prices, including oil, continues to be very uncertain, hinging on the evolution of demand, in a context of an uneven recovery of the global economy and substantial volatility in international financial markets. Specifically for agricultural commodities, the outlook is for rising prices, given the indications that a contraction in supply may occur.

The purchase of external goods tends to diminish domestic inflationary pressures through two channels. First, these products compete with goods that are produced domestically imposing greater discipline to the process of price increases. Second, they reduce the demand in domestic input markets contributing to the weakening of cost pressures and, by consequence, of an eventual pass-through to consumer prices.

In relation to the recovery of the global economy, the baseline scenario continues to contemplate the hypothesis of a relatively slow recovery of activity, with marked asymmetry between economic blocs, but with a smaller probability of reversion.

Internally, the Committee judges that the risks of an imbalance between the growth of domestic absorption and the capacity of supply expansion persist, even though a less pronounced pace of demand expansion and a stronger increase in imports have been noted. The factor markets – most notably the labor market – are operating on tight spare capacity, which is an important risk factor that could be worsened by the presence of mechanisms that favor inflation persistence in the economy. Furthermore, there is the risk that the considerable price increases that were recently seen in the wholesale markets will continue to reverberate to consumer prices. In this context, another relevant risk is that the recent increase in inflation – that was affected in a strong and negative way by the dynamics of food inflation, which in turn was caused by domestic and external supply shocks – be transmitted to the prospective scenario.

After the pronounced drop in the last quarter of 2008 and the first quarter of 2009, investments have been expanding systematically above the growth rate of GDP. As a result, the investment rate – the share of fixed capital formation in GDP – has been recovering in a vigorous way, even though it still remains below the levels that were observed before the 2008/2009 crisis. The combination of less pronounced growth in aggregate demand with the rebound in investment has led to more stable readings of industrial capacity utilization levels – which had been going through a process of continuous growth during 2009 and the beginning of this year.

The high GDP growth rates of this year will be partly reflecting the statistical carry-over effect that results from the growth rates that were recorded in the second half of 2009. In general, however, the outlook for the evolution of domestic economic activity remains favorable, at a more moderate pace than what was observed at the beginning of the year. This assessment is underpinned, among others, by the indications that the expansion of credit supply will persist – if at a more moderate pace after the recent adoption of macro-prudential measures – both, for individuals and for corporations; by the fact that the confidence levels of consumers and entrepreneurs remain at historically high levels – in spite of marginal accommodations; and by the recent behavior of inventory levels in some industrial sectors. The strength of labor markets, the remaining effects of the fiscal stimulus and of the policies of public banks and, to a lesser extent, the recovery of the global economy are also noteworthy.

An important source of risk comes from the labor market. The employment level has increased in a vigorous manner and led to the lowest unemployment rate readings since the beginning of the computation of the time series with the methodology that is currently employed (in March 2002). Real average earnings have been growing since the beginning of the year, after oscillating in 2009, in particular in the public sector. A crucial aspect in such situations is the possibility that the level of activity in the labor market leads to nominal wage increases at rates that are not compatible with productivity growth, which in a strong demand environment, are passed on to price increases. In this respect, the theory, which is backed by international experience, establishes that wage moderation is a key element for guaranteeing a macroeconomic environment with price stability.

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

The potential effects of recent increases in wholesale market prices on consumer prices should also be monitored. The evidence suggests time lags between price variations in the wholesale market and their eventual pass-through to consumer prices – as highlighted in a box in the March 2010 *Inflation Report*. This implies that, presumably, a share of the effects of the recent spike in producer prices will still be transmitted to consumer prices. As noted in previous *Reports*, the Copom understands that the effects of the development of prices in the wholesale market on consumer inflation will depend, among others, on current conditions and the outlook for demand, on the exposure of each sector to external and internal competition, and on expectations of price setters regarding the future evolution of inflation.

Another source of concern lies in the evolution of inflation expectations – which have followed an unfavorable dynamic during the last months. More specifically, the associated risk lies in the possibility that the recent increase in inflation will influence even further the expectations of price increases, making this dynamic more persistent.

Regarding fiscal policy, the recovery of economic activity, led by the expansion of domestic demand and the reversion of a substantial portion of the tax breaks that had been introduced to fight the economic crisis create an outlook that is favorable to the substantiation of a scenario of recovery of fiscal accounts. In this context, the Copom understands that, based on the available information, the origination of primary surpluses that are compatible with the working hypotheses of the inflation forecasts that are presented in the next section, on top of diminishing the imbalance between the rates of growth of demand and supply, will solidify the trend of reduction in the public debt to GDP ratio. On this point, it is important to clarify that the Committee reaffirms that its main prospective scenario is conditioned on the materialization of the trajectories with which it works for fiscal and quasi-fiscal variables.

The dynamics of the credit market also deserves attention, be it for its potential impact on aggregate demand and, as a consequence, on inflation, or for the macro-prudential risks that it may represent. The dynamism of the credit market in Brazil has been intense and has meant a persistent growth in the credit to GDP ratio. As highlighted in the box "The Potency of Monetary Policy in Brazil", in the June 2010 *Report*, this deepening of credit markets, among other factors, must have contributed to amplify the power of monetary policy in Brazil. On the other hand, the Copom understands that the moderation in the expansion of the credit market, in particular of the earmarked operations, constitutes an important element to the materialization of its main scenario. Compared to the situation that prevailed at the time of the last *Report*, the view that prevails is that there has been a substantial increase in the probability of the hypothesis of moderation in the expansion of the credit market in face of the introduction of macro-prudential initiatives.

Regarding macro-prudential risks, it is important to note that the expansion of credit has taken place in an environment in which there are declining delinquency rates – which in their turn are partly a consequence of the position of the economy in the cycle.

The Committee understands that the macro-prudential actions that were recently adopted contribute favorably to the outlook and that they are part of a broader process that aims, among others, at the phasing out of the stimuli introduced to counteract the effects of the 2008/2009 crisis on the Brazilian economy. Together with other initiatives, they constitute a sequence aimed at adapting the domestic financial conditions to the post-crisis environment, which is characterized by contrasting outlooks for the main economic blocs. The Committee notes that, to a certain extent, there is an equivalence between macro-prudential and conventional monetary policy actions and that the importance of this link is going to increase with the deepening of credit markets – a phenomenon that has been observed in Brazil during the last years. However, the Committee notes that there is no backing for the view that these two sets of instruments be viewed as perfect substitutes as they diverge, among other aspects, in their outreach and transmission mechanisms. In sharing the view that the behavior of banks with respect to risk taking is one of the transmission mechanisms of monetary policy, the Committee understands that, under the conditions that prevailed in the beginning of December, macro-prudential actions should precede conventional actions of monetary policy. Furthermore, it should be noted that even when the scenario requires the use of both types of instruments, good practice recommends that the former should precede the latter.

Summing up, since the last *Report*, on the external front, extraordinary liquidity injections and their almost immediate and generalized effects on asset prices, especially commodities, point to a smaller probability of reversion of the still slow process of adjustment in which the G3 economies find themselves in. On the other hand, they reveal an ambiguous influence of the international scenario on the evolution of domestic inflation. Internally, the remaining effects of the adjustment of the Selic rate have not yet been entirely incorporated into the price dynamics. Additionally, the macro-prudential measures that were recently announced – a fast and potent instrument to contain local pressures on demand – will have their effects incorporated in the evolution of prices. Against the background of these recent developments, there was the materialization of short-run risks with which the Copom had been working, but in a scale that was larger than had been anticipated. Even though the uncertainties that surround the global scenario and, to a lesser extent the domestic scenario, do not allow to identify with certainty the persistence of recent pressures, the current balance of risks is much less favorable to a benign scenario for inflation, in which the inflation rate would consistently converge to its target, when compared to the last *Report*.

In this context, the Committee unanimously decided to keep the Selic rate at 10.75% p.a., without bias, in its October and December meetings.

6.3 Inflation forecasts

According to traditionally adopted procedures, and taking into account the available information up to the cutoff date of December 10, 2010, the baseline scenario assumes the exchange rate remains unchanged over the forecast horizon at R$1.70/US$, and the target for the Selic rate stays at 10.75% p.a. – the level set by the December Copom meeting

– against R$1.75/US$ and 10.75% p.a. considered in the September *Inflation Report*. The projection in the baseline scenario for the change, in 2010, of the set of regulated and monitored prices is of 3.4%, a decrease of 0.2 p.p. in comparison to the value considered in the last *Report*. This projection is based on the hypotheses of an increase of 1.6% in prices for gasoline; of 1.7% in prices for bottled gas; of 2.8% for electricity rates; and of 0.4% 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, is at 4.0% for 2011 and 4.4% for 2012 – against 4.4% and 4.5% considered in the September 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 September *Inflation Report*. For the last quarter of 2010, these expectations moved from R$1.77/US$ to R$1.70/US$, and for the last quarter of 2011, from R$1.81/US$ to R$1.75/US$. For the last quarter of 2012, survey expectations project an average exchange rate of R$1.80/US$. The expectation about the average Selic rate, in general, increased in comparison to the values presented in the last *Report*. For the last quarter of 2010, it was kept at 10.75% p.a., while for the last quarter of 2011, it moved from 11.75% to 12.25% p.a. For the fourth quarter of 2012, the projection for the average Selic rate is 10.92% p.a. This trajectory of the Selic rate is consistent with a twelve-month pre-DI swap spread, with respect to the current target for the Selic rate (10.75% p.a.), of 81 b.p., 161 b.p. and 80 b.p., in the last quarter of 2010, 2011 and 2012, respectively. Additionally, the market scenario assumes changes for the group of regulated and administered prices of 3.4% in 2010, of 4.1% in 2011, 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 3.1% of GDP in 2010, which could be 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 levels of 3.0% (according to the project of the Budgetary Guidelines Law – LDO) and of 3.1% of GDP, respectively, without any adjustment.

Moreover, the projections presented in this *Report* incorporate the estimated impact of the recently announced changes in the rules of reserve requirements.

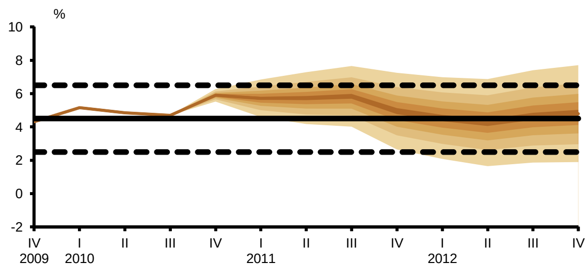
Based on the above assumptions and using the information set until the cutoff date (December 10, 2010), projections were constructed for the IPCA inflation accumulated over four quarters, consistent with the interest and exchange paths of the baseline and market scenarios.

The central projection associated with the baseline scenario shows inflation of 5.9% in 2010, an increase of 0.9 p.p. in comparison to the projection presented in the September *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 2011, when reaches 5.0%, and fluctuates around the central target in the following quarters. According to data shown on Table 6.1, the projection for twelve-month accumulated inflation in the last quarter of 2010 is of 5.9%. The respective projections for 2011 moves from 5.7% in the first quarter, reaches 5.8% in the third quarter, but decreases and ends the year at 5.0%. In this scenario, the associated projection for the first quarter of 2012 is of 4.5%, decreases to 4.3% in the second quarter and ends the year at 4.8%. The decrease of the inflation projections for 2011 and 2012, 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 and the estimated impact of the changes in the rules of reserve requirement. 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 13%.

In the market scenario, the inflation projection for 2010 is 5.9%, equal to the respective baseline scenario projection, representing an increase of 0.9 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 pattern of the baseline scenario, fluctuate above the central value of the target until the end of 2011, when stands at 4.8%, but recede along 2012, finishing the year at 4.5%. The projection for the last quarter of 2010, within this scenario, is 5.9%, decreases to 4.8% in the fourth quarter of 2011 and reaches 4.5% in the last quarter of 2012. According to the market scenario, as well as in the baseline scenario, the estimated probability that inflation for 2010 will breach the upper

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.).

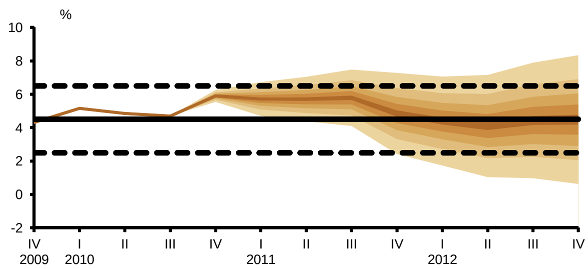
Table 6.1 – Projected IPCA-inflation with interest rate constant at 10.75% p.a.
(Baseline scenario)

Year	Q	Probability Interval 50%	30%	10%				Central projection
2010	4	5.7	5.8	5.9	5.9	6.0	6.1	5.9
2011	1	5.3	5.5	5.6	5.8	6.0	6.2	5.7
2011	2	5.1	5.4	5.6	5.9	6.1	6.4	5.7
2011	3	5.1	5.4	5.7	6.0	6.3	6.6	5.8
2011	4	4.0	4.4	4.8	5.1	5.5	5.9	5.0
2012	1	3.5	4.0	4.3	4.7	5.1	5.5	4.5
2012	2	3.2	3.6	4.1	4.5	4.9	5.3	4.3
2012	3	3.5	4.0	4.4	4.8	5.3	5.8	4.6
2012	4	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%	10%	30%	50%	Central projection
2010	4	5.8	5.8	5.9	5.9	6.0	6.0	5.9
2011	1	5.3	5.5	5.6	5.8	6.0	6.1	5.7
2011	2	5.2	5.4	5.6	5.8	6.0	6.3	5.7
2011	3	5.1	5.4	5.7	5.9	6.2	6.5	5.8
2011	4	3.9	4.3	4.7	5.0	5.4	5.8	4.8
2012	1	3.3	3.8	4.2	4.6	5.0	5.5	4.4
2012	2	2.8	3.4	3.9	4.3	4.8	5.4	4.1
2012	3	3.0	3.6	4.2	4.7	5.2	5.8	4.4
2012	4	2.9	3.6	4.2	4.8	5.4	6.1	4.5

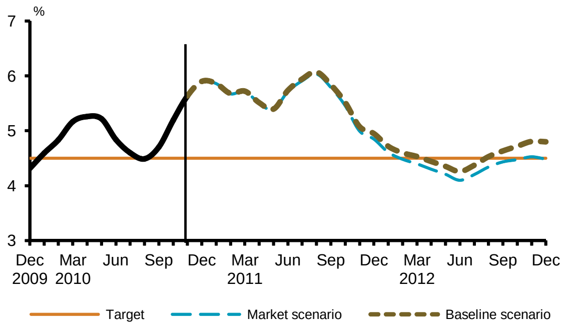
Note: accumulated inflation in 12 months (% p.a.).

1/ According to Gerin.

Table 6.3 – September 2010 *Inflation Report* projections

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

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



tolerance level of the target is negligible. For 2011, this probability is close to 13%.

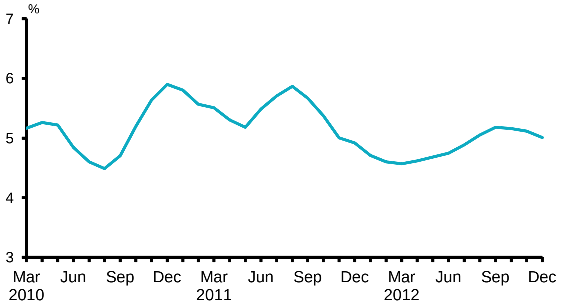
As it was shown in the last *Report*, the projected dynamics for both scenarios are close to each other along 2011, as long as the effect of the difference between the interest rate trajectories is almost entirely offset by the respective exchange rate paths. For 2012, it is worth noting the increasing distance between the projection paths toward the end of the considered horizon. This departure is essentially caused by the lagged effect, due to the monetary policy transmission mechanisms, of expected hike in the Selic rate considered in the market scenario. Another aspect to highlight is that, in general, inflation projections increased in comparison to figures in the last *Report*, but nevertheless are close to the central target by the end of the considered horizon.

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 an increase of the projections in the last quarter of 2010 and along 2011, partially reflecting the increase of inflation expectations for the current year and 2011, and higher inflation rates in recent months than the respective projections presented in the September *Report*. In the market scenario, the projection changes also reflect these movements. Regarding 2012, in both scenarios, it is also shown a decrease in the inflation projections, in respect to those presented in the September 2010 *Report*, for the first and second quarters of 2012, and a slight increase in the projections for the third quarter of 2012.

Figure 6.5 shows the path of twelve-month accumulated inflation, according to the baseline and market scenarios, up to the fourth quarter of 2012, as well as the target trajectory. The figures are actual twelve-month inflation until November 2010, and, from December on, projections according to the two scenarios. The projections fluctuate, in both scenarios, above the target in 2011. In the baseline scenario, the trajectory indicates decrease of the twelve-month accumulated inflation along the first semester of 2012, and a slight increase in the second semester, whereas in the market scenario, after a decrease until the third quarter of 2012, the trajectory tends to figures close to the central target by the end of the projection horizon.

The average forecast generated by the Vector Autoregression models (VAR) for the twelve-month accumulated inflation is presented in Figure 6.6. By November 2010, the values are actual twelve-month inflation and, as of December, refer to

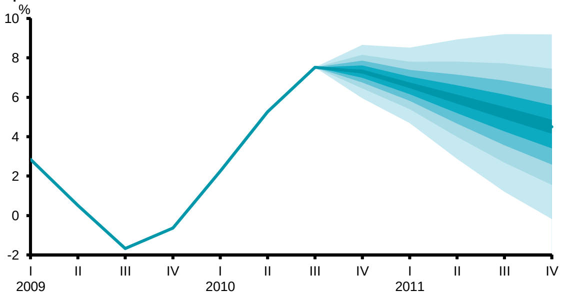
Figure 6.6 – Inflation forecast: VAR models



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



the average forecast of the VAR models. As well as in the projections generated in the baseline and market scenarios, the VAR models forecasts for twelve-month accumulated inflation increased along 2011, in comparison to those presented in last *Report*. Regarding the first semester of 2012, the forecasts decrease in comparison to those presented in the September 2010 *Report*, and increase again in the third quarter of 2012. The VAR models forecasts decrease along the first quarter of 2012, in comparison to 2011, but increase in the second and third quarters and tend to inflation unconditional average, below the 2010 inflation.

In short, under the baseline scenario, as well as under the market scenario, the projections have already incorporated the estimated impact of the recently announced increase in the reserve requirements and the primary surplus effort. Nevertheless, in both cases, the projected values stand above the midpoint target of 4.5% established by the CMN for inflation in 2011. It is worth noting that, under the inflation targeting regime, deviations in projected inflation from the target of such magnitude suggest the need for implementation, in the short-run, of an adjustment in the basic interest rate, in order to control the growth pace mismatch between the domestic demand and the productive capacity of the Brazilian economy, as well as to reinforce the anchorage of inflation expectations.

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 September 2010 Inflation Report. This projection essentially reflects a carry-over statistical effect due to the growth rates observed along the second semester of 2009. Copom assesses that Brazilian economy has been changed towards a GDP growth rate which is consistent with its long-run equilibrium and, therefore, projects a growth rate for 2011 of 4.5%.

Administered Projections Prices

For the purposes of inflation analysis and forecasting, the Broad National Consumer Price Index (IPCA) is usually divided into market prices and prices that are administered or regulated by contract ("administered prices"). For this and other purposes, administered prices are those established by contract by a public or regulatory agency, and are generally less sensitive to supply and demand conditions. Currently, the set of administered prices comprises 28 items that represent about 30% of the total IPCA bundle, as reported in Table 1[1].

Given the importance of such prices for the conduction of monetary policy, and in order to provide updated information on the models currently used by the Central Bank, the objective of this box is to describe the strategy for projecting administered prices, which is subject to constant updates. It should be emphasized that, beyond the models described here, expert judgment is also taken into account in the construction of scenarios for the future behavior of administered prices, especially for the short term. The projections of this set of prices, along with the information generated by other econometric tools, constitute important inputs for the decision making process of the Monetary Policy Committee (Copom).

Figure 1 – Twelve-month change for market and administered prices

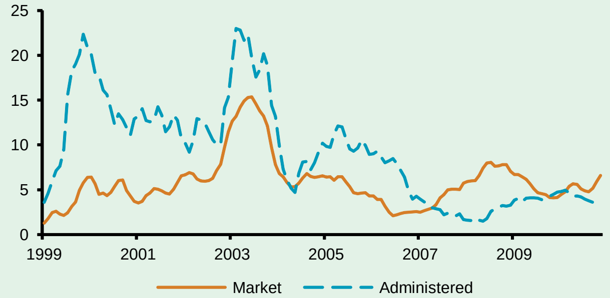


Figure 1 shows the twelve-month percentage change of market and administered prices since January 1999. After the period between 1999 and early 2007, in which the changes in administered prices were

1/ As explained on the boxes "Change in the Composition of the IPCA Group of Administered Prices by Contracts and Monitored" and "**IPCA** Administered Prices by Contracts and Monitored: Update on the Consumer Expenditure Survey", published in the Inflation Report of December 2005 and March 2006, respectively, the classification of administered prices can be modified by the Monetary Policy Committee (Copom) for analytical or economic policy reasons. In 2006, for example, the composition of administered prices has changed, with the inclusion of pharmaceuticals, vehicular gas and traffic fines, and the exclusion of ethanol, property tax and public transportation – ship.

Table 1 – Administered Prices Composition

Items	IPCA weights (%)*	Administered weights (%)	Price adjustment frequency**	Regulatory authority***
Petroleum Products	5.49%	18.77%		
Gasoline	3.94%	13.47%	Irregular	ANP
Bottled Gas	1.19%	4.07%	Irregular	ANP
Vehicular Gas	0.10%	0.36%	Irregular	ANP
Piped Gas	0.10%	0.33%	Irregular	States
Diesel	0.08%	0.27%	Irregular	ANP
Motor Oil	0.08%	0.26%	Irregular	ANP
Public Transportation and Bus	6.57%	22.44%		
Urban Bus	3.84%	13.10%	Irregular	Municipalities
Intercity Bus	1.20%	4.08%	Irregular	States
Insterstate Bus	0.37%	1.27%	Annual	ANTT
Taxi Cab	0.32%	1.10%	Irregular	Municipalities
Plan 1/	0.34%	1.15%	Irregular	–
Subway	0.26%	0.90%	Irregular	Municipalities
Train	0.10%	0.36%	Irregular	Municipalities
Ferry-Boat	0.01%	0.04%	Irregular	Municipalities
Ship	0.00%	0.01%	Irregular	Municipalities
Toll	0.12%	0.43%	Annual	States
Electricity	3.24%	11.06%	Annual	Aneel
Water	1.63%	5.56%	Annual	Municipalities
Health	6.36%	21.73%		
Health Plans 2/	3.50%	11.94%	Annual	ANS
Pharmaceuticals	2.87%	9.79%	Annual	CMED
Communication	4.82%	16.45%		
Fixed Telephone	3.25%	11.09%	Annual	Anatel
Mobile Telephone	1.29%	4.42%	Annual	Anatel
Public Telephone	0.23%	0.80%	Annual	Anatel
Post Mail	0.04%	0.15%	Irregular	Federal Government
Other	1.17%	4.00%		
Vehicle Licensing	0.72%	2.45%	Irregular	States
Lottery	0.38%	1.30%	Irregular	Federal Government
Traffic Fines	0.07%	0.24%	Irregular	Contran
Legal services	0.00%	0.01%	Irregular	States
	29.28%	100.00%		

Source: Banco Central do Brasil and IBGE

* Weights for October 2010.

** Approximate frequency for recent years.

***It should be noted that the nature of regulation concerning the adjustment price rates varies between different agencies. Some, like the ANS and Anatel, determine the percentage adjustment to be applied to most goods and services regulated by them, while the ANP role is to ensure competition in the market.

1/ The prices of airline tickets are free but are included in the category given because the air transport in Brazil's public concession.

2/ The annual adjustment is distributed throughout the year to calculate the variation of the IPCA item.

Anatel – National Telecommunications Agency

Aneel – National Energy Agency

ANP – National Agency of Petroleum

ANS – National Health Agency

ANTT – National Agency of Terrestrial Transportation

CMED – Chamber of Market Regulation on Pharmaceutical Prices

Contran – National Council of Traffic

higher than that of market prices[2], in recent years the latter have been, generally, growing slightly faster than the former. For example, administered prices grew 2.87% in 2010 up to November, while market prices rose by 6.25% in the same period.

Administered prices, as mentioned earlier, are less sensitive to supply and demand forces than market prices are and, in general, their adjustments are determined by contractual rules. Roughly speaking, these rules usually seek to compensate variations in costs and productivity gains across sectors and are set by regulatory agencies in each sector and the indices used to update the value of the contracts vary with each item.

The price of fixed telephone services, for example, was adjusted based on the change of the General Price Index – Internal Availability (IGP-DI) until 2005. Currently, the readjustments follow the change in the Telecommunication Services Index (IST), which is mainly composed by IPCA (weight of 47.6%) and the Broad Producer Price Index – Global Supply/ Machinery and Equipment (IPA-OG/Machines, weight of 32.5%). Price of pharmaceuticals, in turn, have been adjusted, since 2003, according to a price cap model that combines the IPCA with factors of productivity and relative price adjustment between and within sectors. Regarding electricity, the annual adjustment rate considers explicitly the variation in the General Price Index – Market (IGP-M), as well as the influence of other factors, including the evolution of the exchange rate and the incidence of taxes and fees on the final consumer. The consumer price of gasoline, although depends on factors such as price of ethanol and the competition among the distributors, tends to reflect the pricing policy pursued by Petrobras. This, in turn, is influenced by the exchange rate, international oil prices and the Contribution of Intervention in the Economic Domain (Cide).

In summary, besides the IPCA and the general price indexes, the variation in administered prices are influenced by other variables, such as exchange

2/ Between January 1999 and December 2006, administered prices rose 147%, compared to an increase of 61% of market prices. The Working Paper No. 59, (2002), "Administered Prices and Inflation in Brazil," discusses the causes of the distinct behavior of market-based and administered prices between 1996 and 2002.

rate and international prices. Moreover, as there are defined rules regarding the frequency and period of readjustment, seasonal pattern exists for certain items, such as the fixed telephone tariffs and prices of pharmaceuticals.

In this context, the identification of the indexes and the variables that influence the administered prices, in addition to seasonal patterns, are the starting point for modeling. Two different strategies are used for projecting the administered prices. Under the first one, which is purely econometric, different models comprising two-stage least squares regressions and Vector Autoregression techniques (VAR) are estimated for the aggregate of administered prices. Under the second, known as hybrid modeling, there is a mix of econometric models with "accounting" procedures. With the goal of projecting individual items of administered prices, the "accounting" procedures use information from the contracts between the public agency and the service provider, together with price adjustment rules and methodologies used by the Brazilian Institute of Geography and Statistics (IBGE) to incorporate price variations of specific IPCA components.

In the "accounting" procedures, there are items whose annual adjustments are set nationally and delimited by a specific index or set of indexes as in the cases of fixed telephone services and pharmaceuticals. Other items are defined in state and municipal[3] levels and show no regular intervals in the adjustment, such as urban bus fares – in some cities the readjustment of the tariff has been occurring annually in the same month of the year, while in others the rate remains unadjusted for periods exceeding three years. In such cases, the "accounting" procedures would be difficult to deal with because, in addition to estimating the magnitude of price adjustments, one would have to anticipate when they would be implemented. Thus, for items where the "accounting" procedures are inadequate, prices are modeled by econometric techniques in the aggregate, i.e., for the remainder of the administered prices bundle not included in the "accounting" approach. To summarize, in the hybrid modeling a portion of administered prices

3/ The IPCA is calculated for nine metropolitan regions (Rio de Janeiro, Sao Paulo, Belo Horizonte, Belem, Fortaleza, Salvador, Recife, Curitiba and Porto Alegre), plus the cities of Goiânia and Brasília.

Table 2 – Summary of model specifications for administered prices

Approach	Dependent variable	Method	Explanatory variables*
Econometric	Administered prices (aggregate)	Ordinary least squares	Market prices, PPI, Exchange rate
		Vector autoregressive (VAR)	Endogenous: prices of bottled gas, gasoline, electricity and urban bus
			Exogenous: Exchange rate and market prices
		Vector autoregressive (VAR)	Endogenous: IGP-DI and market prices
			Exogenous: PPI and Exchange rate
Hybrid	Individual items**	"Accounting"	IPCA, IGP-DI, IGP-M
	Other administered prices (aggregate)	Two-stage least squares	IGP-DI, PPI, Exchange rate
		Ordinary least squares	Market prices, PPI, Exchange rate
		Vector autoregressive (VAR)	Endogenous: IGP-DI and market prices
			Exogenouss: PPI and Exchange rate

* For the "accounting" approach, the indexes are explicitly indicated in the contracts or those that allow more closely replicate the pattern of recent adjustment.

** Fixed telephone, public telephone,interestate bus, water supply, bottled gas, toll, health plan, pharmaceuticals, vehicle licensing.

PPI – U.S. Producer Price Index
IGP-DI – General Price Index – Internal Availability
IGP-M – General Price Index – Market Prices

is projected individually using the "accounting" approach, while the rest is projected collectively by econometric models. The final projections of the hybrid models are obtained, then, by the weighted average of these two sets[4].

Table 2 summarizes the model specifications for the two strategies. Note that the future path of the explanatory variables used in econometric models and the indexes used in the accounting procedures, in the market scenario, are given by the median aggregate projections for the corresponding series from the Market Report – *Focus* produced by the Central Bank's Investor Relations Group (Gerin).

Figure 2 – Twelve-month forecasts for administered prices

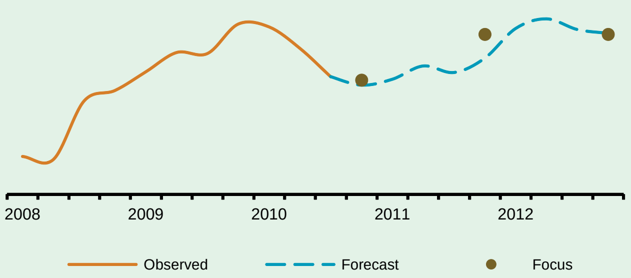


Figure 2 shows the projections of administered prices from the fourth quarter of 2010 through the fourth quarter of 2012 and the estimates provided by the *Focus* Report for the end of each year[5].

To conclude, this box presented the modeling process used by the Central Bank to project administered prices. Therefore, by providing additional information about the set of projections considered by the Copom, it helps to foster transparency in the decision making, one of the pillars of the inflation targeting system .

4/ Nearly 44% of the administered prices are modeled using the "accounting" approach.
5/ The projections through the end of 2011 are based on analysis of experts, while the others are from the models described in Table 2.