Inflation outlook

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This chapter of the *Inflation Report* presents the Monetary Policy Committee's (Copom) assessment of the behavior of the Brazilian economy and of the international scenario since the release of the previous *Report* in September 2012. The chapter also presents the analysis of the inflation prospects up to the fourth quarter of 2014 and of the Gross Domestic Product (GDP) growth up to the third quarter of 2013. Inflation projections are presented in two major scenarios. The first scenario, called the baseline scenario, assumes that the Selic rate will remain unchanged at 7.25% per year over the forecasting horizon, the level set by Copom at its most recent meeting on November 27 and 28, and the exchange rate will remain at R$2.05 per US dollar. The second scenario, named the market scenario, is based on the expected paths for the policy interest rate and for the exchange rate drawn from the survey carried out by the Banco Central do Brasil's Investor Relations and Special Studies Department (Gerin) among independent analysts. It is important to stress that these scenarios are used only as support for monetary policy decisions and their assumptions should not be viewed as Copom forecasts of the future behavior of interest and exchange rates. The projections released here are based on the information set available up to the cutoff date of December 7, 2012.

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

6.1 Inflation determinants

The twelve-month inflation measured by the change in the Broad National Consumer Price Index (IPCA) reached 5.53% in November, 1.11 percentage points (p.p.) lower than the value recorded in the same month of 2011. Market prices increased 6.23% in the twelve months to November (0.56 p.p. lower than the November 2011 rate) and administered and monitored prices 3.50% (2.77 p.p. lower than the November 2011 rate). Although decreasing, there are localized pressures in the prices of the food and beverage group – partly due to local and non-local weather factors – that caused an increase of 10.08% in this group in twelve-month inflation in November, with consequences to the market prices path. Within the set of market prices, the increase of the non-tradable goods reached 8.17%, and that of the tradable goods amounted to 4.10%. Meanwhile, inflation in the service sector, which has remained at a level consistently higher than the overall market prices, reached 8.24% in the twelve months to November. In summary, services inflation still remains at high levels, there are decreasing pressures in the food and beverage segment and increases in monitored prices have been moderate.

Measures of underlying inflation calculated by the Central Bank have shown similar behavior to that of headline inflation. The average monthly change reached 0.51% in October and 0.60% in November and, in twelve months, reached 5.37% in November (6.72% in November 2011). More specifically, the non-smoothed trimmed mean core increased from 0.46% in October to 0.61% in November, and the smoothed trimmed mean core decreased from 0.54% to 0.49%. The double weighted core increased from 0.55% in October to 0.62% in November. The exclusion core – which excludes ten items from the groups food at home and fuels – changed from 0.51% in October to 0.63% in November, whereas the measure that excludes the prices of monitored goods and food at home changed from 0.48% in October to 0.64% in November.

The IPCA diffusion index stood at 62.72% in November, a lower value than that of November 2011 (67.19%), and above the historical average of 60.59% (since September 1994). The quarterly average rose to 65.93% in November, 3.19 p.p. higher than the value recorded in the quarter ended in August and 2.13 p.p. above the value occurred in November 2011.

Broader inflation – measured by the General Price Index (IGP-DI) – which is characterized by higher volatility, reached

0.25% in November (7.22% in twelve months) compared to -0.31% in October (7.41% in twelve months). The major component of the IGP-DI, the IPA, changed 7.73% in the twelve months to November, influenced by the agricultural sector (17.15%) – that was impacted by supply shocks – and by moderated changes in the prices of the industrial sector (4.38% through November). The twelve months variation in the IPC – the second most important component of the IGP-DI – reached 5.89% in November (0.39 p.p. below the value in November 2011). The INCC – the smallest weight component in the IGP-DI – increased 7.06% in the twelve months to November (compared to 8.09% in November 2011), which was the result of changes of 9.21% in the labor cost and of 4.90% in the cost of materials, equipment and services.

The high frequency coincident indicator of economic activity, IBC-Br, that provides monthly production estimates for the three sectors of the economy, decreased 0.5% in September, after expanding 1.0% in August, considering seasonally adjusted data. Compared to the same month of the previous year, there was an increase of 0.4% in September and of 2.7% in August, considering non-seasonally adjusted data. In twelve months, the growth rate declined from 1.2% in August to 1.1% in September.

The Consumer Confidence Index (ICC), from FGV, decreased in October and November, but still is above its historical average. The Commerce Confidence Index (ICOM) increased, in November, for the fourth consecutive month, reflecting the improvements of the expectations about the current situation. The confidence of industrial entrepreneurs continues to recover gradually. In fact, in October, the seasonally adjusted Industry Confidence Index (ICI) reached the highest level since June 2011, and then a slight decline in November, but still is 4.5 p.p. above the value occurred in November 2011. In turn, the Services Confidence Index (ICS) registered the third consecutive monthly increase in November, due to the recovery of the service sector entrepreneurs' confidence. In short, there is evidence of a gradual recovery of business confidence in the industry and in the service sector, while, in the case of consumers, although the confidence has receded, it still is at a high level.

Industrial production increased 2.3% in October, compared to the same month of previous year, after registering thirteen negative results in the same basis of comparison. According to the industrial output series seasonally adjusted by IBGE, industrial activity increased 0.9% in October, after a decline of 0.6% in September, compared to the previous month. Thus, the variation of the quarterly moving average increased from 0.4% in September to 0.6% in October. Among the categories of use, durable consumer goods production increased 1.4% in October; intermediate goods production increased 0.6%; while semi and non-durable consumer goods production declined 0.3% and capital goods production, 0.6%, in the same basis of comparison. In twelve months, industrial production posted a loss of 2.7% in October and there were accumulated losses in all segments: semi and non-durable consumer goods (-0.4%), durable goods (-5.1%), intermediate goods (-1.7%) and capital goods (-10.1%). With regard to the real sales of the manufacturing industry, they grew 3.4% between January and October of the current year compared to the same period of last year, despite a 1.6% decline in the number of hours worked, according to National Confederation of Industry (CNI).

The seasonally adjusted Installed Capacity Utilization Level (Nuci) in the manufacturing sector, computed by FGV, decreased from 84.2% in October to 84.0% in November (0.7 p.p. higher than in November 2011). Capacity utilization in the consumer goods sector is stable (85.7%) and declined in the capital goods sector (to 81.4%). In the intermediate goods and materials for construction sectors, seasonally adjusted Nuci stood at 84.7% and 89.4%, respectively. According to CNI data, seasonally adjusted by the Central Bank, Nuci decreased from 81.4% in September to 80.9% in October. Regarding inventories, according to the seasonally adjusted indicator from the Manufacturing Industry Conjuncture Survey, conducted by FGV, the levels are low in the consumer goods sector and high in the capital goods and materials for construction sectors.

The retail sector continues to show more favorable dynamics than the industry. In fact, the broader retail volume in the third quarter of 2012 increased 1.7% over the previous quarter, after expanding 3.2% in the second quarter. Thus, the twelve-month rate reached 6.6% in September, with growth in all ten activity groups surveyed by the IBGE. In turn, the restricted real retail sales grew 8.1%, in this period, especially in the segments of "furniture and appliances" (13.3%) and "equipment, office supplies, computer and communication" (17.9%). In the next months, sales will continue to be influenced by government transfers, by the real payroll growth and by moderate credit expansion.

The Brazilian economy grew 0.6% in the third quarter compared to the previous quarter, when it had grown 0.2%, according to seasonally adjusted IBGE data. Compared to the same quarter of 2011, growth in the third quarter reached 0.9%, against 0.5% in the second. Therefore, the four-quarter growth rate of GDP shifted from 1.2% to 0.9%, from the second to the third quarter. Agricultural and industrial production expanded 2.5% and 1.1%, respectively, in the third quarter, compared to the previous one. On the same basis of comparison, the value added by the services sector has remained unchanged.

From a demand side perspective, household consumption – the largest component of aggregate demand – remains robust and, at the margin, increased 0.9% in the third quarter and 3.4% over the same quarter of 2011 – the thirty-sixth consecutive increase in this basis of comparison. Government consumption increased by 3.2% over the same quarter of last year (0.1% at the margin). In turn, the Gross Fixed Capital Formation (GFCF) contracted 5.6% in comparison to the third quarter of 2011 (-2.0% at the margin). The slow recuperation of confidence partially explains why investment has not reacted to the stimulus introduced in the economy. With regard to foreign trade, there was an increase of 0.2% in exports at the margin (with decrease of 3.2% over the third quarter of 2011) and decrease of 6.5% in imports (-6.4% over the same quarter of last year). In particular, foreign sales to Argentina, to the European Union and to Japan remain negatively impacted by the fragility of economic activity in these areas.

The IBGE reported unemployment rates, relative to October, for six metropolitan areas covered by the Monthly Labor Survey (PME). According to seasonally adjusted data by the Banco Central do Brasil, the unemployment rate shifted from 5.5% in September to 5.4% in October, remaining close to the minimum of the historical series, started in 2002 (5.3% in August 2012). Therefore, the occupation level – which represents the share of occupied people relative to the share of people at working age – reached a record high for the series in October (55.0%), confirming the trend observed during the last years. Also according to the PME, the average real income rose 4.6% in October, related to the same month of 2011, and real payroll, considering the average earnings of occupied population over the six metropolitan areas, increased 7.8% compared to October 2011. In turn, formal employment remains growing, albeit at a more moderate pace. According to the data released by the Ministry of Labor and Employment (MTE), 954 thousand jobs were created between November 2011 and October 2012 compared to 1.66 million in the twelve months to October 2011.

In addition to rising payrolls, credit availability to households – largely determined by macroeconomic stability and institutional reforms in recent years – was an important driving force behind growth of household consumption. So, it should be noted that, in general, the credit market expansion is occurring in an environment where a downward trend in borrowers' interest rate prevails. The credit outstanding to households with non-earmarked resources grew 11.3% in October 2012, compared to the same month of the previous year, reaching R$710.6 billion. In the same period, housing loans, whose operations are mainly based on earmarked resources, grew by 38.8%, reaching R$263.2 billion. Delinquency rates have been showing some stability, at the margin, at levels consistent with the phase of the cycle, with downward trend given perspectives of continued recovery of domestic economic activity.

The volume of credit to corporations totaled R$ 1,197.3 billion in October 2012, volume 15.9% higher than in the same period of 2011. There was growth in both loans and financing from earmarked resources – the amount of which totaled US$469.1 billion – as from non-earmarked resources – which totaled US$728.2 billion. Regarding the capital market, the volume of primary issues of shares registered in the Securities and Exchange Commission (CVM) reached R$8.9 billion in the twelve months to October 2012. It's worth noting, though, that in this period there were primary issues in the stock market only in April, June, July and October 2012. In turn, debenture issues totaled R$107.2 billion in twelve months to October, highlighting the issuance of US$35 billion by leasing companies.

With regard to the external sector, the twelve-month trade balance reached US$21.0 billion in November (US$31.3 billion in November 2011). This result stemmed from US$245.0 billion in exports and US$224.0 billion in imports, which represented variations of -3.9% and 0.2%, respectively, compared to the twelve months period ended in November 2011. The exported volume registered an increase of 0.4% while the average price of exports decreased by 1.9%, considering the twelve months ended in October 2012. In the same period, the imported volume decreased 0.1% and the average price of imports rose by 2.5%.

The twelve-month current account deficit reached US$52.2 billion in October, equivalent to 2.3% of GDP. An important component of this deficit has been remittances of profits and dividends, which totaled US$26.7 billion. Note that foreign direct investment has been the main financing source of the balance of payments totaling US$66.0 billion in the twelve months to October, equivalent to 2.9% of GDP.

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

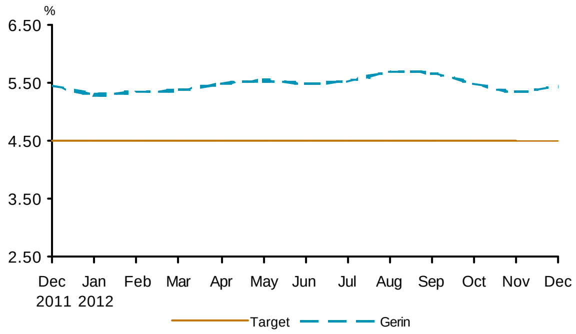


Figure 6.2 – Dispersion of inflation expectations for 2013

Relative frequency

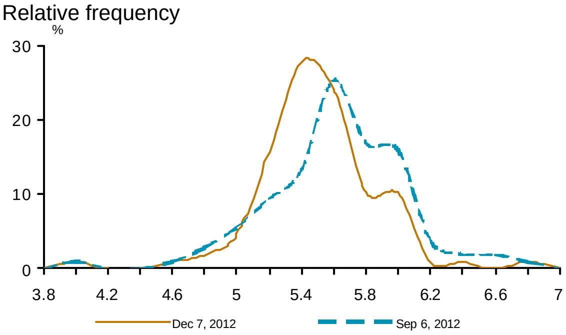
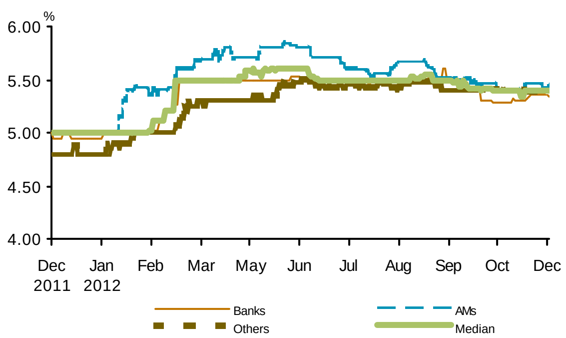


Figure 6.3 – Median market expectations by segment for 2013 IPCA-inflation



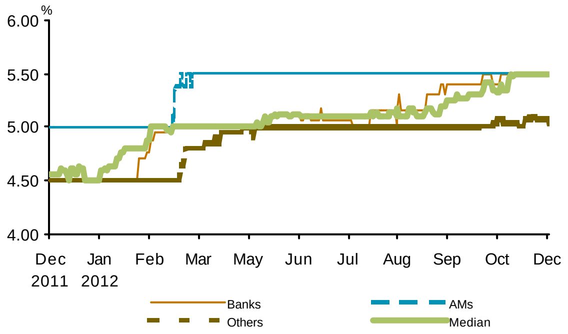
In international financial markets, volatility and risk aversion have accommodated since the release of the previous *Report*. Unconventional policy action reported since then by mature economies, tend to increase liquidity in their respective markets and to contribute to the decrease in the probability of extreme events. Since last *Report*, leading indicators point to moderate global activity, markedly in the manufacturing sector, with some recovery at the margin in the United States and in main emerging economies, in contrast with the deterioration in the Euro area. Despite the accommodation of risk indicators and signals of activity recuperation in certain regions, global economy still faces more than usual uncertainty, with persistent fiscal imbalances and perspectives for slow growth for a prolonged period.

Brent oil prices have decreased since the last *Report*, to levels around US$110. It is worth noting that the geopolitical complexity which surrounds the oil sector tends to boost the volatile behavior of prices, which also reflects the low predictability of some global demand components and the fact that the supply growth depends on highly risky long-term maturity investments. In relation to other commodities, behavior since last *Report* was heterogeneous, with negative variation in agricultural commodities and positive in metal. At the cutoff date of December 7, the price index based on twenty two commodities, published by the CRB, accumulated a decrease of 1.5% since September 6.

The median of market expectations for the 2012 GDP growth rate has decreased since the release of the previous *Report*, from 1.62% on September 6 to 1.03% on December 7. For 2013, the projected growth rate shifted from 4.00% to 3.50%. During this period, the median expectation for inflation moved from 5.24% to 5.58% for 2012, from 5.54% to 5.40% for 2013, and from 5.14% to 5.50% for 2014. Twelve-month-ahead inflation expectations decreased from 5.66% to 5.44%, as shown in Figure 6.1. Since the release of the previous *Report*, there was a reduction in the dispersion around the central tendency measures of inflation expectations for 2013, as illustrated in Figure 6.2. The standard deviation of these projections moved from 0.42% to 0.36%.

In the specific case of banks, asset managers (AMs) and other institutions (nonfinancial companies, brokers, consulting companies and others), the median inflation expectations for 2012, at the cutoff date of December 7, were 5.58%, 5.58% and 5.57%, respectively, compared to 5.23%, 5.30% and 5.23% in the last *Report*. For 2013, as Figure 6.3 shows, they were at 5.34%, 5.45% and 5.40%, in the same order, versus 5.50%, 5.63% and 5.48% in the September *Report*.

Figure 6.4 – Median market expectations by segment for 2014 IPCA-inflation



For 2014, as Figure 6.4 shows, median inflation expectations were at 5.50%, 5.50% and 5.02%, in the same order, versus 5.15%, 5.50% and 5.00% registered in September 2012.

6.2 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 external side, in general, since last *Report* the prospects for global activity have remained unchanged. In fact, evidence point to low growth rates in mature economies – lower than the potential growth – despite signals of acceleration in the pace of activity in important emerging economies. Prospects firmed for a moderation of localized price pressures in agricultural commodities segment, which had arisen between the second and third quarters of this year and were a consequence of an unfavorable supply shock. On the domestic side, since last *Report*, new information point to activity recuperation in a slower pace than anticipated, but the prospective scenario envisages a more intense pace of economic activity in the following semesters. The moderation of credit markets – in particular consumer credit – and the fiscal policy scenario are also important aspects of the domestic scenario.

On the external front, the slow growth prospects for mature economies, for a prolonged period of time, still prevail. In the United States, despite recent improvements in the real estate market, the pace of activity is still negatively influenced by the tightening of the fiscal scenario – with risks of "fiscal cliff" – and by the fragility of the labor market, despite improvements at the margin, as well as the risks associated with the European crisis. In the euro area, the political uncertainty adds to the depressed economic climate and to the skepticism regarding the strength of the banking system in some countries. In important mature economies, restrictions in the scope for countercyclical policies, fragile labor markets, wealth destruction and constrained credit markets contribute to the maintenance of low growth prospects.

In main emerging markets, the pace of activity is still supported by the resilience of domestic demand, although the Copom evaluates that the developments in mature economies are transmitted directly to emerging economies' aggregate demand in intensity proportional to, among other factors, the importance of trade and investment flows. The Committee stresses the importance of the transmission through the expectations channel, which affects investment, in the case of entrepreneurs, and consumption, in the case of households. Regarding the Chinese economy, since last *Report*, signs of stabilization in the pace of growth have emerged – and growth rates tend to consolidate in a lower level than observed in former years. Prospects are favorable for other Asian emerging economies, as well as in Latin American countries, in general.

The Copom assesses that there are still significant risks for global financial stability, in particular due to the ongoing deleveraging process in the main economic blocks and to the exposure of international banks to the sovereign debt of countries with fiscal unbalances. Although insurance prices against default (CDS) of banks and sovereigns, especially in the euro area, have receded since last *Report*, they remain high, and there is still evidence of displacements of private liquidity among countries in the euro area, towards economies with strong fundaments. Despite the complexity of the external environment, the Committee understands that the probability of extreme events in international financial markets has decreased.

In international markets, there has been a moderation of localized price pressures in agricultural commodities segment, which had arisen between the second and third quarters of the year and were a consequence of an unfavorable supply shock. In fact, since last *Report*, the Commodities Brazil Index (IC-Br) measured in national currency has remained stable, with the increase in the prices of metal and energy being compensated by the decrease in the prices of agriculture and livestock (the IC-Br measured in dollar prices has decreased).

The price of Brent oil barrel has kept its typical volatility since last *Report*, remaining around US$110. The geopolitical complexity which surrounds the oil sector is a permanent source of risks, which also reflects the low predictability of some global demand components and the fact that the supply growth depends on long-term maturity investments. The Copom notes that international oil prices affect domestic inflation not only through the local price of gasoline, but also via the petrochemical production chain and the expectations channel of consumers and entrepreneurs.

The Copom evaluates that purchases of external goods tend to contribute to the weakening of domestic inflationary pressures through two channels. Firstly, these products compete with goods that are domestically produced, imposing greater discipline to the price setting process. Secondly, goods imports reduce the demand for domestic input markets, contributing to the weakening of cost pressures and, by consequence, of its pass-through to consumer prices. In this respect, it is worth mentioning that cost pressures not offset by efficiency gains contribute to the reduction in the competitiveness of domestic firms in the goods international markets, in a global environment with historically high levels of spare capacity.

In sum, despite recent evidence of stabilization, the still fragile international scenario remains as an important factor of containment of aggregate demand. Moreover, the central scenario envisages a relatively benign dynamics for commodities prices in international markets.

On the domestic side, the pace of activity in the second semester has been less intense than anticipated. According to Quarterly National Accounts data reported by IBGE regarding the third quarter, industry and agriculture, to a certain extent, reacted to the *stimulus* introduced in the economy, and the stability of the services sector reflected events which tend not to recur. Domestic demand has continued to be the main support of the economy, with consumption being stimulated by the moderate expansion of credit, by labor and income creation. On the other hand, investments have not reacted to the *stimulus* introduced in the economy, partly due to the slow recuperation of confidence.

The Copom assesses, however, that domestic demand tends to strengthen, especially private consumption, partly due to boost factors, such as income growth and moderate expansion of credit. This environment tends to prevail in the following semesters, when domestic demand will be affected by the effects of recent policy action, which are lagged and cumulative. For the Committee, these effects, programs of public services concessions and the gradual recuperation of entrepreneurs' confidence generate good perspectives for investment in the following semesters. The Committee additionally considers that recent action points to the shifting of the public sector balance from a neutral to an expansionist position.

The Copom assesses that there are limited risks of mismatch – in specific segments of goods and services markets – between supply and demand growth rates.

In terms of factor markets, the Copom assesses that an important source of risk to inflation comes from the labor market, which on the one hand shows signs of moderation, and on the other hand low idle capacity. A crucial aspect under these circumstances is the possibility that the overheating in the labor market leads to real wage increases at rates that are not compatible with productivity growth, with negative impacts on the inflation dynamics. At this point, it is worth noting that, according to the theory, which is endorsed by the international experience, wage moderation is a key element to the achievement of price stability.

Still on the labor market, the Copom understands that there are risks due to the presence of mechanisms that favor the persistence of inflation in the Brazilian economy, derived from the possibility that wage bargaining gives excessive weight to past inflation at the expense of future inflation. Nonetheless, the Committee assesses that the risks due to formal and informal mechanisms of wage indexation have lowered. This is supported by the fact, among others, that the raise in the minimum wage in the following years will be markedly lower than the one granted in 2012. The important reduction in the pace of minimum wage tends to smooth the wage dynamics in general, with consequences to production costs, especially in labor intensive segments. Moreover, in the public sector, closed negotiations with public employees' point to moderation in wage gains for the next three years. In this context, for the economy as a whole, wage gains are expected to be more compatible with productivity gains.

Regarding the capital factor, investments outcomes remained unsatisfactory since last *Report*. The third quarter of 2012 presented the fifth consecutive reduction in the Gross Fixed Capital Formation (GFCF), compared to the previous quarter. The investment rate, measured by the GFCF to GDP ratio – 18.5% in the third quarter of 2012, considering the accumulated amount along four quarters – was the lowest since the first quarter of 2010. The Committee notes that, by the other hand, investment scenario is favorable in sectors like infrastructure. For the Committee, the effects of the recently implemented policy actions, the programs of public services concession and the gradual entrepreneurs' confidence recovery create favorable perspectives for investment in this and upcoming semesters.

The Copom evaluates that joint dynamics of the factor markets – regarding the output gap – tend to be disinflationary, in the short run.

The Committee assesses that there are important mechanisms making the Brazilian inflation rigid downwards. 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 by literature and international experience that the existence, even informally, of price indexation mechanisms reduces the sensitivity of inflation to demand conditions. Overall, by restraining the disinflation process, indexation mechanisms contribute to increasing the "starting point" of the inflation rate during economic slowdowns, thus raising the inflation risks for the prospective scenario and increasing the costs of disinflation.

The Copom considers that the recent increases on general price indexes, which, in a large extent, are consequences of the exchange rate depreciation observed in the first semester and shocks associated to domestic and external climatic events, are a risk for the prospective scenario. By the other hand, evidences indicate that, in a large extent, these wholesale prices' pressures had already been transmitted to consumer prices. Furthermore, the Copom emphasizes that the outlook for the upcoming semesters indicates moderation in the price dynamics of some real and financial assets.

Regarding fiscal policy, Copom assesses that recent initiatives point to the balance of public sector moving from a neutral to an expansionary position. By the other hand, the Committee reaffirms that its prospective scenario for inflation is conditioned on the materialization of the trajectories regarding fiscal variables. The Copom evaluates that the generation of primary surpluses in line with the working hypotheses considered for inflation projections presented in the next section, in addition to contributing to reduce the mismatch between supply and demand growth rates, will strengthen the reduction trend of the public debt-to-GDP ratio and the positive perception regarding the macroeconomic environment in the medium and long terms. Therefore, its financing cost tends to decrease, with favorable implications for the cost of capital in general, which stimulates private investment in the medium and long run.

Still on the fiscal policy, the Copom argues that the price dynamics may be positively impacted by the measures adopted by the government that envisage to reduce production costs and to increase competitiveness of the economy.

The Copom considers that a source of risk lies on the behavior of inflation expectations.

The Copom highlights that its main scenario considers moderate expansion in the credit market, in particular, in the individuals' segment, in a pace that tends to be more compatible with the growth of household disposable income. For the Committee, the dynamics of the credit market deserve attention, be it for its potential impact on aggregate demand or for the macroprudential risks that it may represent. In this context, the Committee considers opportune the initiatives with the aim of moderating the concession of subsidies through credit operations.

The Copom highlights that the main scenario envisages evidences of a downward shift of the path of the natural rate of interest in the last years. This is supported by the projection models of the Banco Central do Brasil and, also, by the dynamics of the bond yields – private and public – negotiated in domestic and external markets. Additionally, the Copom evaluates that, in the vast majority of cases, indicators identified in the literature as determinants of the fall in the natural interest rate also point in the same direction.

In general, the Copom considers that the prospective scenario for inflation shows favorable signs and reaffirms its view that twelve-month inflation tends to move towards the target path, even in a non-linear way.

In this context, the Copom decided to decrease the Selic target to 7.25% p.a., without bias, with five votes for the reduction and three votes in favor of maintaining the Selic rate at 7.50% p.a., in the October meeting and unanimously decided to maintain the Selic rate at 7.25%p.a., without bias, in the November meeting.

The following members of the Committee voted for the reduction of the Selic rate to 7.25% p.a., in October: Alexandre Antonio Tombini (Governor), Aldo Luiz Mendes, Altamir Lopes, Luiz Awazu Pereira da Silva and Luiz Edson Feltrim. The following members voted for maintaining the Selic rate at 7.50% p.a., in October: Anthero de Moraes Meirelles, Carlos Hamilton Vasconcelos Araújo and Sidnei Corrêa Marques.

The following members of the Committee voted for the decision of maintaining the Selic rate at 7.25% p.a., in November: Alexandre Antonio Tombini (Governor), Aldo Luiz Mendes, Altamir Lopes, Anthero de Moraes Meirelles, Carlos Hamilton Vasconcelos Araújo, Luiz Awazu Pereira da Silva, Luiz Edson Feltrim and Sidnei Corrêa Marques.

The Copom understands that the Brazilian economy has experienced significant structural changes, which determined retreat in interest rates in general and, in particular, in the neutral rate. Supports this view, among other factors, the reduction of risk premia, a direct consequence of the accomplishment of the inflation target for the eighth consecutive year, of the macroeconomic stability and of institutional improvements. Moreover, the process of interest rates reduction was favored by changes in the structure of the financial and capital markets, by the credit market deepening, as well as by the generation of primary surpluses consistent with the maintenance of decreasing trend for the public debt-to-GDP ratio. For the Committee, all these changes are characterized by a high degree of persistence – although, due to the economic cycles themselves, specific and temporary reversions may occur – and contribute for the Brazilian economy's current solid indicators of solvency and liquidity.

The Copom also considers that the increase in the supply of external savings and the reduction of its funding cost have contributed to the reduction of the domestic interest rates, including the neutral rate, which, according to the Committee's assessment, are largely permanent developments.

In light of the above, considering the balance of risks to inflation, the domestic activity recovery and the complexity involved in the international environment, the Committee believes that the stability of monetary conditions for a sufficiently long period of time is the most appropriate strategy to ensure the convergence of inflation toward the target, even in a non-linear way.

6.3 Inflation forecasts

According to traditionally adopted procedures, and taking into account the available information up to the cutoff date of December 7, 2012, the baseline scenario assumes that the exchange rate remains unchanged over the forecast horizon at R$2.05/US$, and the target for the Selic rate stays at 7.25% p.a. – the level set by the October and November Copom meetings – against R$2.05/US$ and 7.50% p.a. considered in the September 2012 *Inflation Report*.

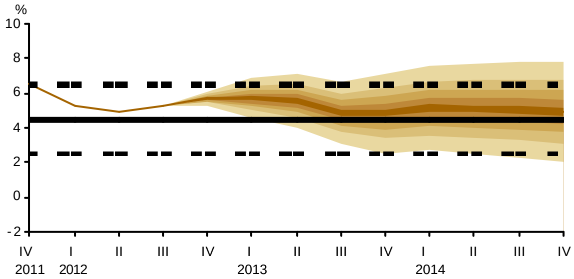
The market scenario, in turn, incorporates data from the expectations survey carried out by Gerin with a representative group of institutions up to the cutoff date. In this scenario, average exchange rate expectations increased in comparison to the values released in the September 2012 *Inflation Report*. For the last quarter of 2012, the average rate moved from R$2.01/US$ to R$2.06/US$ and, for the last quarter of 2013, from R$2.00/US$ to R$2.08/US$. For the fourth quarter of 2014, market participants project an average exchange rate of R$2.02/US$. In what regards the evolution of the average Selic rate, the expectations for 2012 and 2013 decreased in comparison to the values presented in the last *Report*. For the last quarter of 2012, the average Selic rate moved from 7.28% p.a. to 7.21% p.a., and for the last quarter of 2013, from 8.07% p.a. to 7.25% p.a. For the fourth quarter of 2014, the expected average Selic rate is of 8.29% p.a. This trajectory of the Selic rate is consistent with twelve-month pre-DI swap spreads of -1 basis points (b.p.), 39 b.p., and 129 b.p., with respect to the current target for the Selic rate (7.25% p.a.), in the fourth quarter of 2012, 2013 and 2014, respectively.

The projection for the change in the set of regulated and monitored prices, in both scenarios, is of 3.5% in 2012 and 2.4% in 2013, against 3.6% and 2.4%, respectively, considered in the last *Report*. This projection is based on the assumptions, for the accumulated over 2012, of price stability for gasoline; 4.5% increase in prices of bottled gas; 1.7% increase in electricity rates; and -1.6% change in landline telephone rates. For the accumulated over 2013, the projection is based on the assumptions of price stability for gasoline, bottled gas and landline telephone rates, as well as a decrease of 14.6% in electricity rates (this estimate takes into account only the direct effects of the recently announced reductions in sector tariffs). Regarding items for which more information is available, price changes were estimated individually. For the remaining items, the projections are based on models of endogenous determination of regulated prices, which consider, among other variables, seasonal components, market price inflation and General Price Index (IGP) inflation. According to these models, the projection for the change in the set of regulated and monitored prices in both scenarios is of 4.5% in 2014, the same value considered in the last *Report*.

With regard to fiscal policy, projections consider the generation of a primary surplus of around 3.10% of GDP in 2012, with adjustments. Moreover, the generation of a primary surplus of around 3.10% of GDP, without adjustments, in 2013, is considered as working hypothesis, following parameters included in the Budget Guidelines Law (LDO) – 2013. For 2014, the generation of a primary surplus

Figure 6.5 – Projected IPCA-inflation with interest rate constant at 7.25% p.a. (baseline scenario)

Inflation fan chart



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

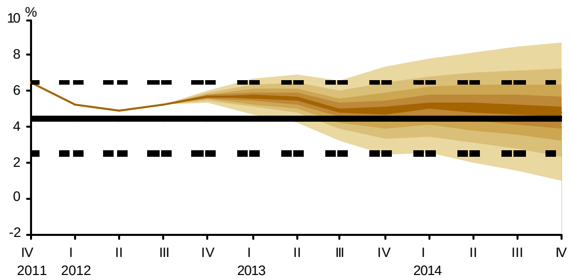
Table 6.1 – Projected IPCA-inflation with interest rate constant at 7.25% p.a.
(Baseline scenario)

Year	Q	Probability Interval 50%	30%	10%		30%	50%	Central projection
2012	4	5.5	5.6	5.7	5.7	5.8	5.8	5.7
2013	1	5.2	5.4	5.6	5.8	6.0	6.2	5.7
2013	2	4.9	5.2	5.4	5.7	5.9	6.2	5.5
2013	3	4.1	4.4	4.7	5.0	5.3	5.6	4.9
2013	4	3.9	4.3	4.7	5.0	5.4	5.8	4.8
2014	1	4.1	4.6	4.9	5.3	5.7	6.1	5.1
2014	2	4.0	4.5	4.9	5.3	5.7	6.1	5.1
2014	3	3.9	4.4	4.8	5.2	5.7	6.2	5.0
2014	4	3.7	4.3	4.7	5.2	5.6	6.1	4.9

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

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

Inflation fan chart



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

of around 3.10% of GDP, without adjustments, is considered as working hypothesis.

The projections presented in this *Report* incorporate the estimated reduction of the natural interest rate identified in the last years.

Based on the above assumptions and using the information set until the cutoff date, projections were constructed for the four-quarter IPCA inflation, consistent with the interest rate, exchange rate and expectation paths characterizing the baseline and market scenarios.

The central projection associated with the baseline scenario indicates inflation of 5.7% in 2012, 0.5 p.p. higher than the projection presented in the September 2012 *Report*. As can be seen in Figure 6.5, in the baseline scenario, the projection for twelve-month inflation ends 2012 above the central target level of 4.5% determined by the National Monetary Council (CMN). However, according to data shown in Table 6.1, the projection presents a declining trend throughout 2013. Specifically, the projection starts at 5.7% in the first quarter of 2013, moves toward 5.5%, 4.9% and 4.8% in the second, third and fourth quarters, respectively. For 2014, the projection stays in 5.1% in the first and second quarters, and decreases to 5.0% and 4.9% in the third and fourth quarters, respectively.

Still in the baseline scenario, the estimated probability that inflation will breach the upper tolerance level of the target in 2013 stays in 12% and, in 2014, around 19%.

In the market scenario, the inflation projection for 2012 stays in 5.7%, the same value of the baseline scenario and 0.5 p.p. higher than the value presented in the last *Report*. As it can be seen in Figure 6.6 and Table 6.2, the projection for twelve-month inflation stays above the central target level in the end of 2012. In 2013, the projection stays in 5.7% in the first quarter, but drops to 5.6% in the second quarter and to 4.9% in the third quarter, ending the year on these grounds. In 2014, the projection starts in 5.2% in the first quarter, and drops to 5.1%, 5.0% and 4.8% in the second, third and fourth quarters, respectively.

Still in the market scenario, the estimated probability that inflation will breach the upper tolerance level of the target in 2013 stays in 14% and, in 2014, around 24%.

The inflation projections in the market scenario are slightly higher than the projections in the baseline scenario, between

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

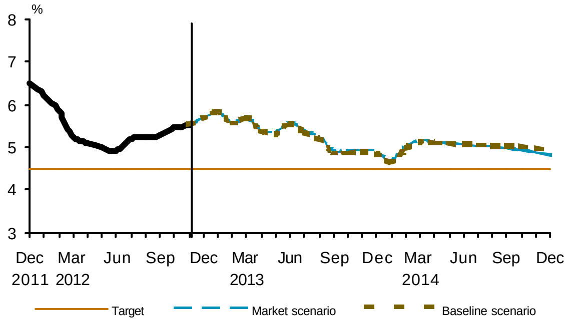
Year	Q	Probability Interval 50%	30%	10%		30%	50%	Central projection
2012	4	5.5	5.6	5.7	5.7	5.8	5.8	5.7
2013	1	5.3	5.5	5.6	5.8	5.9	6.1	5.7
2013	2	5.0	5.3	5.5	5.7	5.9	6.1	5.6
2013	3	4.2	4.5	4.8	5.1	5.3	5.6	4.9
2013	4	3.9	4.3	4.7	5.1	5.5	5.9	4.9
2014	1	4.1	4.5	5.0	5.4	5.8	6.3	5.2
2014	2	3.8	4.4	4.8	5.3	5.8	6.3	5.1
2014	3	3.6	4.2	4.7	5.2	5.8	6.4	5.0
2014	4	3.2	3.9	4.5	5.1	5.7	6.4	4.8

Note: accumulated inflation in 12 months (% p.a.).
1/ According to Gerin.

Table 6.3 – September 2012 *Inflation Report* projections

Period	Baseline scenario	Market scenario
2012 III	5.2	5.2
2012 IV	5.2	5.2
2013 I	5.2	5.1
2013 II	5.1	5.0
2013 III	4.6	4.5
2013 IV	4.9	4.8
2014 I	5.2	5.1
2014 II	5.1	5.1
2014 III	5.1	5.0

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



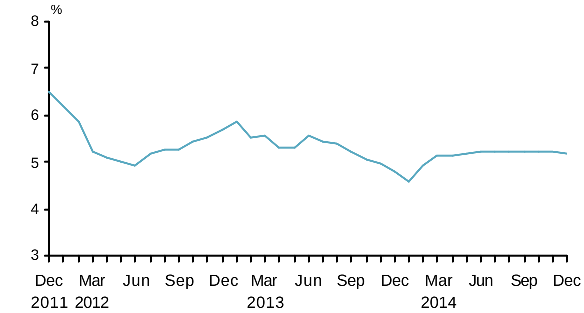
the second quarter of 2013 and the first quarter of 2014, essentially, due to the different exchange rate trajectories considered in each scenario. On the other hand, the projected inflation in the market scenario for the end of 2014 is lower than the projection of the baseline scenario as a result, mainly, of the different interest rate trajectories considered in each scenario.

The comparison of the trajectories shown in this *Report* with those released in the previous one – the latter shown in Table 6.3 –, in the baseline scenario, shows an increase in inflation projections for 2012, reflecting inflation rates in recent months higher than the corresponding projections presented in the last *Report*. In part, these higher rates reflect localized pressures on the prices of agricultural commodities, which have arisen between the second and third quarter of this year, which, however, have moderated recently. Still in the baseline scenario, the inflation projection stays in levels higher than the ones presented in the last *Report* until the third quarter of 2013. Moves toward similar or slightly lower levels in the succeeding quarters, partially reflecting a less intense domestic activity level than the one considered in the last *Report*. In the market scenario, the projections stay above values presented in the last *Report* until the first quarter of 2014, essentially due to the same reasons as well as to the more depreciated exchange rate than the one considered in the last *Report*. In the following quarters, similarly to what occurs in the baseline scenario, the projections in the market scenario move towards levels similar to the ones considered in the last *Report*, also reflecting the less favorable dynamics of the domestic economic activity.

Figure 6.7 shows the path of the twelve-month inflation, according to the baseline and market scenarios, up to the fourth quarter of 2014, as well as the inflation target path. The figures are actual twelve-month inflation until November 2012 and, from then on, projections corresponding to the respective scenarios are used to compose the twelve-month values. In both scenarios, projections indicate twelve-month inflation starting above the central target level, but showing a declining trend throughout 2013. In the beginning of 2014, the projections in both scenarios stay around the central target level, move toward levels around 5.0% in the succeeding months, but stay below this level at the end of the forecast horizon, in both scenarios.

The average forecast generated by the Vector Autoregressive (VAR) models, for the twelve-month

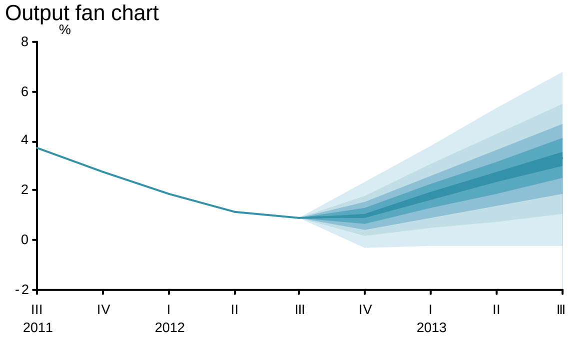
Figure 6.8 – Inflation forecast: VAR models



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

Figure 6.9 – Projected GDP growth with interest rate constant at 7.25% p.a. (baseline scenario)

Output fan chart



inflation, is presented in Figure 6.8. Up to November 2012, the values refer to actual twelve-month inflation and, from then on, to forecasts. According to these models, the inflation projection also presents a declining trend throughout 2013, stays around the central target level in the beginning of 2014 and converges to the unconditional mean at the end of the forecast horizon.

Figure 6.9 illustrates the output growth fan chart built under baseline scenario assumptions. Considering that the GDP growth projection process uses two variables that are not directly observable – potential output and output gap –, the forecast errors associated with these projections are considerably higher than the errors related to inflation projections. According to this scenario, the projected four-quarter GDP growth is of 1.0% for 2012 (0.6 p.p. lower than the value presented in the previous *Inflation Report*), and of 3.3% for the four-quarter GDP growth up to the third quarter of 2013. The revision of the estimated trajectory for the GDP reflects, to a large extent, a less intense recovery of domestic activity than the one considered in the last *Report*.