6 Inflation outlook

This chapter of the *Inflation Report* presents the Monetary Policy Committee's (Copom) assessment of the behavior of the Brazilian economy and of the international scenario since the release of the previous *Report* in March 2012. The chapter also presents the analysis of the inflation prospects up to the second quarter of 2014 and of the Gross Domestic Product (GDP) growth up to the end of 2012. Inflation projections are presented in two major scenarios. The first scenario, called the baseline scenario, assumes that the Selic rate will remain unchanged at 8.50% per year over the forecasting horizon, the level set by Copom at its most recent meeting on May 29 and 30, and the exchange rate will remain at R$2.00 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 June 8, 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

Twelve-month inflation measured by the change in the Broad National Consumer Price Index (IPCA), after reaching 7.31% in September 2011, has decreased since then, reaching 4.99% in May 2012, 1.56 percentage point (p.p.) below the value observed in the same period of 2011. This movement was determined both by the smaller variation of market prices, 5.89% in May (0.91 p.p. below the value occurred in May 2011) and by the moderation in the variation of administered and regulated prices, 3.49% (2.47 p.p. below the rate observed on the same comparison basis). Within the set of market prices, the change in the price of non-tradable goods reached 7.45%, while the prices of tradable goods presented a much lower increase (3.49%) on the same basis of comparison. In turn, service sector inflation, although consistently higher than that of market prices, decreased to 7.59% in twelve months up to May (0.95 p.p. below that observed up to May 2011).

In general, the core inflation measures calculated by the Banco Central do Brasil have displayed a similar pattern to that of the headline inflation. In a monthly basis, the average rate of change of the core inflation measures receded in May, after having increased in April, and, considering the twelve-month change, the variation is still in the descending path, initiated in October 2011. The core measure by smoothed trimmed mean moved from 0.28% in March to 0.51% in April and 0.45% in May, whereas by non-smoothed trimmed mean changed from 0.27% in March to 0.50% in April and 0.31% in May. Inflation measured by the double weighted core measure, after reaching 0.26% in March, moved to 0.61% in April and to 0.34% in May. The exclusion core measure that excludes ten items from the groups food at home and fuels moved from 0.21% in March to 0.69% in April and to 0.36% in May, whereas the measure that excludes prices for monitored goods and food at home changed from 0.22% to 0.71% and to 0.26% in the same period. The average monthly change of the five core inflation measures moved from 0.25% in March to 0.60% in April and 0.34% in May. In the twelve months up to May, they reached 6.08%, 4.67%, 5.68%, 5.60% and 5.60%, respectively, compared to 6.28%, 4.81%, 5.95%, 5.79% and 5.78% in April and 6.38%, 4.80%, 6.02%, 5.61% and 5.64% in March.

The IPCA diffusion index stood at 64.93% in May 2012, close to the rate registered in May 2011 (64.84%), and above the historical average of 60.49% (since September 1994). The quarterly average of the index decreased to 61.92%

between March and May – 0.77 p.p. below the average for the three-month period from December to February and 1.89 p.p. below the average for September to November.

Broader inflation – measured by the General Price Index (IGP-DI) – that is characterized by more volatility, has also been, in general, decreasing. In fact, after having moved from -1.43% in 2009 to 11.30% in 2010, inflation measured by IGP-DI receded to 5.00% in 2011. In 2012, in a monthly basis, the changes in the IGP-DI were 1.02% in April and 0.91% in May, and the twelve-month inflation reached 4.80% against 9.14% in May 2011. This reduction is basically due to its main component, the Broad Producer Price Index (IPA-DI), whose twelve-month change receded to 4.40% in May 2012, from 10.30% in May 2011, majorly as a consequence of the lower pressures arriving from raw materials prices. By the origin, prices of agricultural products rose by 5.62% in the twelve months up to May (against 21.28% in May 2011), whereas prices for industrial products, 3.97% (6.85% in 2011). According to the Consumer Price Index (IPC), the second most important component of the IGP-DI, the twelve-month inflation reached 5.06% in May (1.31 p.p. lower than inflation until May 2011), in which the highest increases occurred in the groups of miscellaneous expenses, education, reading and recreation and health and personal care. The twelve-month inflation of the National Cost of Construction Index (INCC), which is the component with the lowest weight in the IGP-DI index, moved to 6.66% in May (against 8.52% up to May 2011). This rise was the result of increases of 9.15% in labor costs and 4.15% in the costs of inputs, equipments and services. As emphasized in previous *Reports*, the Committee evaluates that the effects of wholesale prices over consumer price inflation will depend on current and prospective demand conditions, as well as on price setters' expectations for the future path of inflation.

The Index of Economic Activity of the Central Bank – Brazil (IBC-Br) is an important coincident indicator of economic activity as it incorporates estimates for monthly production of the three sectors of the economy, as well as taxes on products. In the first quarter of 2012 the index displayed a growth rate of 0.15% over the previous quarter, after increasing 0.20% in the last quarter of 2011. When compared to the first quarter of 2011, the indicator increased by 1.1% between January and March. The twelve-month growth rate until March is 1.8%.

After a declining period, the confidence of the industrial entrepreneurs shows signs of improvement at the margin. In this sense, it should be noted that the Industry Confidence

Index, computed and seasonally adjusted by Getulio Vargas Foundation (FGV), showed a slight increase in May for the 6th consecutive month. In turn, the Services Confidence Index (ICS), computed by FGV, decreased in May, reaching 5.9% and 4.3% below the value registered in May 2011 and the 2011 average, respectively.

Industrial production dropped by 0.5% in March and 0.2% in April, in the monthly comparison, after an increase of 1.3% in February, according to seasonally adjusted data by Brazilian Institute of Geography and Statistics (IBGE). In that way, the growth of the three-month moving average was 0.2% during the February to April period, after a decrease of 0.3% during the January and March period. By industry categories of use, the production of capital goods increased 3.5% between March and April and the intermediate goods production, 0.3%. As to the durable consumer goods production, it decreased by 0.7%, and the non-durable and semi-durable consumer goods production fell 0.5%, on the same basis of comparison. In the twelve-month growth rate, the industrial production change was -1.1% in April (-1.0% in March and -0.9% in February). By industry categories of use, there were relative stability in the production of semi-durable and non-durable consumer goods (0.1%) and decreases in the production of capital goods, 1.7%, intermediate goods, 0.6%, and durable consumer goods, 6.1%.

The seasonally adjusted Installed Capacity Utilization Level (Nuci), computed by FGV changed from 83.7% in February to 84.0% in May. Nuci is higher in the materials for construction sector (87.2%) and in the intermediate goods sector (85.3%). In the capital goods sector, Nuci reached 82.5% and in the consumer goods sector, 83.4%. According to data from the National Confederation of Industry (CNI), seasonally adjusted by the Banco Central do Brasil, Nuci decreased from 82.1% in January to 80.9% in April. Free from seasonal influences, the Manufacturing Industry Survey of FGV indicator displayed increases in the inventory level in May, after reduction in the first four months of the year. This increase at the margin is concentrated in the durable consumer goods sector.

FGV, jointly with the Banco Central do Brasil, started to publish, in October 2011, the Commerce Confidence Index (ICOM). This monthly survey provides an important indicator, as it portrays, in a timely way, assessments of entrepreneurs in the commerce sector on the current state and the expected evolution of the commercial activity. The survey allows detailed tracking of seventeen business segments, both wholesale and retail. In the quarter ending in May, the ICOM showed a positive evolution, just as the three-month period up to March and April showed. However, when compared to the same period in 2011, the index decreased between March and May, due to the less favorable evolution in expectations. On average for the three-month period ended in May, 60.0% of surveyed companies projected growth in businesses for the following quarter while 4.3% of them expected reduction.

Data from retail sales show a much more favorable dynamics than production. In fact, the volume of expanded retail, in the first quarter of 2012, grew by 3.0% in the first quarter of 2012 compared to the previous quarter, and 7.3% compared to the first quarter of 2011. Therefore, the twelve-month growth was 6.7% in March, with expansion in all ten groups of activities surveyed by IBGE. In turn, the real restricted retail sales grew 7.5% on this basis of comparison, with an emphasis on increased sales for segments of "furniture and appliances" (16.4%) and "equipment, office supplies, computer and communication" (24.8%). It is worth noting that the twelve-month growth rates of both expanded and restricted retail sales continue to be higher than the rate of expansion of industrial production and output. The recent behavior of retail sales was also reflected in the imports of durable goods, whose volume rose by 11.7% in the twelve months up to April, according to Foreign Trade Studies Center Foundation (Funcex). For the next quarters, retailing should continue to be bolstered by the growth of real payroll, by government transfers, the moderate expansion of credit and high consumer confidence. Also, the Consumer Confidence Index, calculated by FGV, registered in April its new historical maximum, before presenting a slight decrease at the margin in May.

The Brazilian economy grew 0.8% in the first quarter of 2012, compared to the same quarter last year, after growing 1.4% and 2.1% in the third and fourth quarters of 2011, on the same basis of comparison. According to seasonally adjusted IBGE data, compared to the immediately previous quarter, GDP increased by 0.2% in the first quarter of this year, repeating the growth rate of the October-December period, after a decrease of 0.1% in the third quarter of 2011. Therefore, the four-quarter growth rate of GDP fell, from the fourth quarter of the previous year to the first quarter of the current year, from 2.7% to 1.9%, confirming the assessment that the Brazilian economy is growing below its potential. The services sector, which exhibits less volatile growth rates, expanded by 0.6% in the first quarter of 2012 compared to the previous quarter according to seasonally adjusted IBGE data, whereas the value added by industry increased by 1.7% on the same basis of comparison. In turn, agricultural production decreased by 7.3%, influenced by significant losses due to weather conditions in soybean harvest and other products. The process of moderation in the pace of economic growth is partly due to policy actions implemented at the end of 2010 and early 2011, compounded by the deterioration of the global economic scenario in the second half of 2011.

From the viewpoint of aggregate demand, household consumption – the largest component of aggregate demand – is still the main driving force of the economy. Household consumption grew 2.5% in the first quarter, compared to the same period of the previous year (1.0% in the margin), the 34th consecutive expansion on this basis of comparison. Government consumption grew by 3.4%, compared to the same period in the previous year (1.5% at the margin). In turn, the Gross Fixed Capital Formation (GFCF) decreased by 2.1% in comparison to the first quarter of 2011 (1.8% at the margin) but expanded by 2.1% in the accumulated over the past four quarters. Despite growth at decreasing rates, the prospects regarding investment are favorable, especially in the oil sector (pre salt) and infrastructure. Regarding exchanges with the rest of the world, after nine quarters of negative values, when compared to the first quarter of 2011, the external sector contribution to the GDP growth was null in the first quarter of 2012, with growth of 6.6% in exports and 6.3% of imports. In sum, domestic demand, driven by the expansion of credit, employment and income, has been the main driving force of activity.

Unemployment, measured by the rate of unemployment in the six metropolitan areas covered by the monthly survey of the IBGE, declined significantly in recent years and stood at 6.0% in April, 0.4 p.p. lower than the rate observed in the April 2011. Considering the series seasonally adjusted by the Banco Central do Brasil, the rate was 5.6% in April, just 0.1 p.p. above the historical minimum occurred in December 2011. In twelve months until April, there was a decrease in the unemployment rate in four out of the six metropolitan areas covered by the IBGE survey, with an annual employment growth rate in the six regions reaching 1.8%. Concerning the evolution of formal employment, job creation continues to expand, albeit in a more moderate way. According to figures released by the Ministry of Labor and Employment (MTE), 1.37 million job positions were created between May 2011 and April 2012, compared to 1.97 million in the previous twelve months. The slower pace of the growth rate of the economically active population in the recent past contributes to the stability, in low levels, of the unemployment rates despite the moderation in job creation. According to the IBGE, the average real earnings usually earned by the employed population increased 6.2% in April over the same month of 2011, contributing to the real payroll expansion of 8.0% on the same basis of comparison. In short, despite signs of moderation at the margin, the body of evidence indicates that the labor market remains robust.

In addition to rising payrolls, the availability of credit to households – largely determined by macroeconomic stability and institutional reforms in recent years – was an important driving force in the growth 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 15.4% in April 2012, compared to the same month of the previous year, reaching R$673.3 billion. In the same period, housing loans, whose operations are mainly based on earmarked resources, grew by 42.9%. Overall, the pace of total credit expansion presented some moderation reflecting, in part, the moderation in economic activity and more cautious behavior of the financial institutions. Delinquency rates have been showing some stability, at the margin, at levels consistent with the phase of the cycle.

The total volume of credit to corporations grew by 16.4% in April 2012, compared to the same month of 2011, considering non-earmarked and earmarked operations, and totaled R$1,114.8 billion. This expansion is a consequence of the loans and financing with resources from the National Bank of Economic and Social Development (BNDES), which amounted to R$424.2 billion, and of non-earmarked loans, which amounted to R$674.0 billion. Regarding the capital market, the volume of primary issues of shares in the Securities and Exchange Commission (CVM) reached R$6.0 billion in twelve months until April. It is also worth noticing that in April there was a R$1.8 billion primary issue in the stock market, which had not been occurred since November 2011. In turn, the debenture issues reached R$28.2 billion in the same period, highlighting the R$20.0 billion issuance from a leasing company.

Regarding the external sector, the twelve-month trade balance reached US$27.5 billion in May (US$23.1 billion in May 2011). This result includes exports of US$ 259.3 billion and imports of US$231.7 billion. These values are respectively 15.5% and 15.1% higher than those recorded in twelve months ending in May 2011. It should be noted, however, that external demand, weakened by the complex global environment, has contributed modestly to the growth of the volume exported. In fact, the volume of exports recorded an increase of 3.3% in the twelve months up to April 2012, against the previous twelve months, while the average price of exports rose by 13.9%. The volume of imports increased 5.7% during this period (11.6% in the case of the average price), in part reflecting the strength of domestic demand, despite the slowdown observed in the last months.

The twelve-month current account deficit moved from US$49.8 billion in March to US$51.6 billion in April, equivalent to 2.04% of GDP. Remittances of profits and dividends have been an important component of this deficit, reaching US$33.5 billion in the same period, while foreign direct investment, which have been the main source of balance of payments financing, amounted to US$63.2 billion in twelve months up to April, equivalent to 2.5% of GDP.

In international financial markets, volatility and risk aversion have increased since the release of the previous *Report*. Despite the substantial liquidity provided by the European Central Bank (ECB) at the end of last year and the beginning of this year, considerable risks to global financial stability still remain, among other reasons, due to the exposure of international banks to sovereign debt of countries with fiscal imbalances. This view is supported by the increasing differences among sovereign debt-related asset prices of countries in the euro zone, as well as by the credit default swap (CDS) rates of banks in the region, which have been shifting private liquidity toward less risky countries and institutions.

Still regarding the global economy, in general, the prospects of a more moderate economic activity than anticipated have consolidated. The improvement of the United States economic indicators observed at the beginning of the year has been followed by worse-than-expected data at the margin. Moreover, the signs of activity deterioration or recession in some advanced economies, as well as of slowdown in emerging economies, have been reinforced. In particular, the need for fiscal adjustment – that, indeed, is being implemented – as well as the limited room for countercyclical policy actions continue to contribute to modest growth projections in these economies, or even to the reduction in the potential output growth, indicating larger and volatile business cycle. Leading indicators published by the Organization for Economic Co-operation and Development (OECD) in May suggest a continuing and

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

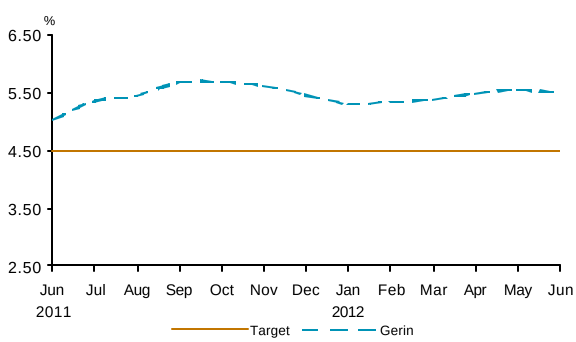
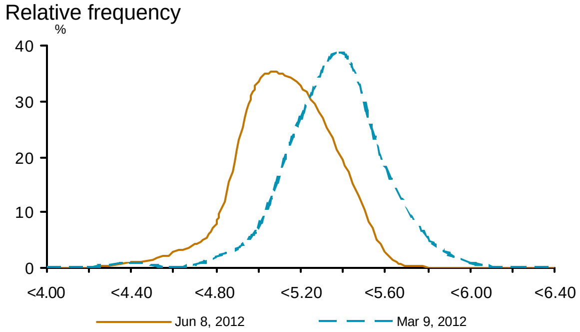


Figure 6.2 – Dispersion of inflation expectations for 2012



gradual increase in the pace of activity in the United States and Japan in upcoming months and slowdown in the euro zone. Global coincident indicators, such as the Purchasing Manager Index (PMI), support this assessment.

Regarding monetary policy, the mature economies continued with accommodative stance, and, in some cases, unconventional monetary policies. In particular, the ECB has signaled for the continuity of long-term refinancing operations (LTRO). In emerging countries, in general, the monetary policy bias is expansionist, combined, in some cases, with other countercyclical actions. In particular, China decreased both prime deposit and lending rates and announced sectoral incentive measures. Regarding inflation, in comparison to the last *Report*, twelve-month consumer price inflation has been decreasing in the United States, in the euro area and in the UK. In Japan, inflation remained around zero.

Brent oil prices have decreased since the last *Report*, reaching near US$100/barrel levels. Among other commodities, in general, similar movements occurred with prices toward lower levels in respect to the peaks observed in April 2011 – particularly with regard to agricultural commodities and metals for industrial use. At the cutoff date of June 8, the commodity price index of the Commodity Research Bureau (CRB), based on twenty-two commodities, accumulated a decrease of 18.2% since last year's peak (on April 8, 2011), and of 5.6% since March 9. The food price index calculated by the Food and Agriculture Organization (FAO) of the United Nations decreased 11.9% in May, when compared to the same month of last year.

The median of market expectations for the 2012 GDP growth rate has declined since the release of the previous *Report*, from 3.30% on March 9 to 2.53% on June 8. For 2013, the projected growth rate shifted from 4.20% to 4.30%. In this period, the median expectation for inflation in 2012 moved from 5.27% to 5.03%, and for 2013, from 5.50% to 5.60%. Twelve-month ahead inflation expectations rose from 5.37% to 5.49%, as illustrated in Figure 6.1. Since the release of the previous *Report*, there has been a reduction in the dispersion around the central tendency measures of inflation expectations for 2012, as illustrated in Figure 6.2. The standard deviations of these projections moved from 0.23% to 0.20%.

In the specific case of banks, asset managers (AMs) and other institutions (nonfinancial companies, brokers, consulting companies and others), the median inflation expectations

Figure 6.3 – Median market expectations by segment for 2012 IPCA-inflation

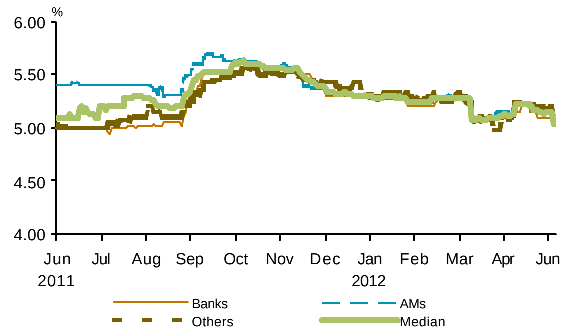
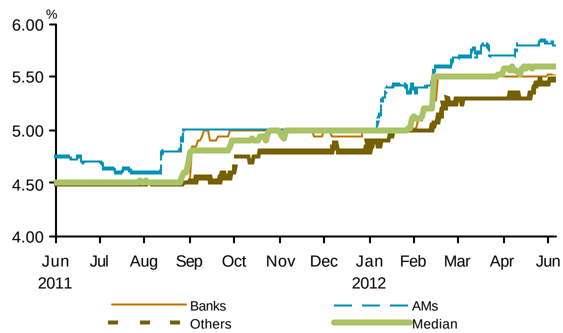


Figure 6.4 – Median market expectations by segment for 2013 IPCA-inflation



for 2012 (Figure 6.3), at the cutoff date of June 8, were 5.01%, 5.02% and 5.05%, respectively, against 5.25%, 5.28% and 5.28% in the previous *Report*. For 2013 (Figure 6.4), the median inflation expectations are 5.52%, 5.80% and 5.47%, respectively, compared to 5.27%, 5.60% and 5.07% in the March 2012 *Report*.

6.2 Main scenario: associated risks and monetary policy implementation

The projections used by the Copom are based on a set of assumptions about the behavior of the main macroeconomic variables. This set of assumptions, as well as the risks associated with them, make up the main prospective scenario based on which the Committee makes policy decisions.

On the external side, in general, the prospective scenario envisages a prolonged period of low growth in global activity. In fact, since the last *Report* there has been increasing evidence pointing to modest pace of growth. In line with the prospects of low growth in global activity, the prices of commodities in international markets tend to present, from the inflationary viewpoint, a favorable dynamics. On the domestic side, the central scenario envisages a moderate pace of domestic economic activity in the short run, with the prospect of acceleration in the next quarters. In the central scenario, the effects of the complexity surrounding the international environment compound with the moderation of domestic economic activity observed in the second semester of 2011, which was higher than expected. In this environment, the economic recovery has been materialized in a quite gradual way. On the other hand, the central scenario considers the effects of monetary policy action implemented since August 2011, which are lagged and cumulative, and require time to totally impact price and activity. The moderation of the credit market and the fiscal policy scenario are also present as important aspects of the domestic context.

On the external front, there is further evidence to support the view that external developments are of great complexity and are transmitted to the Brazilian economy through many channels, among others, the moderation of trade and investment flows, and more restrictive credit conditions. The spillover effect on entrepreneurs' confidence and its unfavorable effects on investment decisions is also a very important transmission channel.

The slow growth prospects for mature economies, for a prolonged period of time, have been reinforced since last *Report*, due to the worsening of the European crisis. In the United States, on the one hand, there is a relatively benign perception towards activity, but, on the other hand, there are risks originated, for instance, from a fiscal tightening scenario in the current and in the following years; as well as the fragility of the real estate and the labor markets. In the euro area, uncertainty about politics and the health of the banking system in some countries have further undermined the already fragile market confidence and reinforce the reduced or low activity growth scenario. The Committee understands that the restrictions to which many mature economies are exposed are likely to be prolonged for a longer than expected period. Among other factors, this is due to the fact that there are still high unemployment rates in these economies; asset prices have recorded substantial losses; the credit market is still fragile; and entrepreneurs' and consumers' confidence is still low; as well as the scope for countercyclical policies is limited.

Growth perspectives in emerging markets, both in Asia and Latin America, have also been revised downwards. In specific cases, there are anticipated changes in the growth pattern – with lower emphasis on exports – which tend to be permanent. 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. The Committee stresses that the transmission through the expectations channel, which affects investment, in the case of entrepreneurs, and consumption, in the case of households, has also been occurring in the real economy. In this context, despite the resilience of domestic demand in emerging economies, the pace of activity has moderated, especially in the manufacturing sector.

For the next quarters, expectations and confidence measures, as well as leading indicators, in general, suggest slow growth for the global activity, more clearly for mature than for emerging economies.

The Copom assesses that there are still significant risks for global financial stability. On the one hand, this is due to the ongoing deleveraging process in the main economic blocks and to greater political uncertainty, and, on the other hand, to the exposure of international banks to the sovereign debt of countries with fiscal unbalances, especially in the euro area. This is reflected, to a certain extent, in still high insurance prices against default (CDS) of banks and sovereigns, especially in the euro area, as well as downward rating revisions of many mature economies by risk rating agencies. Displacements of private liquidity among countries in the euro area, as well as high asset prices in economies with strong fundaments also point to the same direction. Despite the complexity of the external environment, given high volatility and risk aversion, the Committee still works with the hypothesis stated in the last *Inflation Reports*, which is that extreme events in international financial markets will not be materialized.

The central scenario with which the Copom works considers a relatively benign dynamics for commodities prices. Since the cutoff date of the last *Report* (March 9), the Commodities Brazil Index (IC-Br) has slightly increased, mainly due to the exchange rate depreciation, although it stays in relatively more confortable levels, compared to the ones in the first semester of 2011. The CRB index measured in domestic currency has also experienced similar movements. Note, however, that in both cases, when computed based on dollar prices, the indices have declined in this period, mostly due to prospects of a more moderate global activity, especially in big emerging economies. Similarly, the food price index calculated by FAO has also decreased at the margin, exhibiting a level in May which is 5.4% lower than the February value. The behavior of these prices, partly due to the "financialization" process of commodities, is still surrounded by great uncertainty, in a context of abundant global liquidity and high volatility in financial markets.

The price of oil barrel followed the movement observed in other commodities and has decreased since the last *Report*. The geopolitical complexity which surrounds the oil sector is a 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 and services tend to contribute to the weakening of domestic inflationary pressures through two channels. Firstly, these products compete with goods and services that are domestically produced, imposing greater discipline to the price setting process. Secondly, because they 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 and services international markets, in a global environment with historically high levels of spare capacity.

In terms of the balance of risks in the external front, the Copom assesses that the international scenario continues to entail a disinflationary bias in the relevant horizon.

On the domestic side, the twelve-month inflation has declined since October 2011, and the central scenario envisages this dynamics will continue. The Copom assesses that, by itself, this reversal in the previous trend has contributed to improving economic agents' expectations, especially price setters, on the dynamics of inflation in the upcoming quarters. The Committee believes that this improvement in the perceptions on the future path of prices will be increased by the process, now underway, of reassessment of the pace of domestic and foreign economic activity, as well as the decline in current inflation, which impacts the dynamics of future inflation, for example, through its inertial component.

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 of overheating in the labor market – which responds to monetary policy actions with the greatest lag – 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. The Committee judges that the raise in the minimum wage occurred at the beginning of this year affects directly and indirectly the dynamics of other wages and consumer prices.

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. In other words, these risks are derived from the possibility that wage bargaining gives excessive weight to past inflation at the expense of future inflation. Nonetheless, given the reduction of past twelve-month inflation since October, and the prospects that this trend will persist, the Committee assesses that, since the release of the last *Report*, the risks due to formal and informal mechanisms of wage indexation have lowered.

Regarding the capital factor, investments presented unsatisfactory outcomes in the second semester of 2011 and in the first quarter of 2012. Therefore, there has been a slight reduction in the investment rate – the Gross Fixed Capital Formation (GFCF) to GDP ratio – from 19.5% in 2010 to 19.1% in the first quarter of 2012, considering the accumulated amount along four quarters. Nevertheless, the figures still remain at the same level or above the ones in the previous years (18.1%, 19.1%, 17.4% and 16.4% in 2009, 2008, 2007 and 2006, respectively). The Copom also understands that the level of capacity utilization has been stabilizing and is situated below its long-term trend, that is, it is contributing to the widening of the output gap and to restraining price pressures.

The Copom sees as decreasing the risks from the mismatch, in specific segments, between supply and demand growth rates. The Committee notes that, by one side, there is ongoing moderation of domestic demand; by the other, there is an environment favorable for the evolution of economic activity in this and the upcoming semesters, with some asymmetry among sectors. This assessment is underpinned by signs that point to moderate expansion of credit supply for both individuals and corporate, and by the fact that consumers', and in smaller scale, entrepreneurs' confidence are high. Additionally, domestic activity will continue to be favored by public transfers, as well as the strength of the labor market, which is reflected in historically low unemployment rates and in wage growth, despite some accommodation at the margin.

It will also contribute to the strengthening of domestic demand – especially consumption and investment – the process of looser financial conditions experienced in the last quarters. Regarding to that, the importance of monetary policy actions implemented since August 2011, whose effects on activity (and inflation) are cumulative and operate with lags, should be stressed. In other words, monetary policy actions take time to affect activity (and inflation), and the impacts from a sequence of actions overlap in time. It is plausible to state that some immediate impact could materialize, for instance, through the expectations channel. In general, however, the different channels through which monetary policy operates will impact economic activity (and inflation) with different lags, and with the maximum effect occurring some quarters after policy implementation. These lags are considered in the conduct of monetary policy, in part, to avoid undue fluctuations in economic activity.

Still on the transmission of the monetary policy, the Copom highlights that the main scenario considers estimates that show 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.

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 observes that the prices of many items in the IPCA basket vary, to some extent, in response to changes in general price indices. Considering that there has been some recent recuperation in wholesale prices, partly reflecting the exchange rate depreciation, there could be, in principle, some effect on consumer prices, in the short term. However, it is plausible to state that this potential impact tends to be mitigated by the benign dynamics of wholesale prices in longer terms, for instance, from twelve to eighteen months. The Committee reinforces that the effects of the behavior of wholesale prices on consumer inflation will depend on ongoing and prospective conditions of demand and on the expectations of price setters regarding future inflation path.

Regarding fiscal policy, the Copom understands that the generation of primary surpluses in line with the assumptions considered for inflation projections presented in next section will strengthen the trend of reducing the public debt-to-GDP ratio. Therefore, its financing cost tends to decrease, with favorable implications for the cost of capital in general, which, along other medium- and long-term benefits, stimulates private investment. The Committee reaffirms that its main scenario is conditioned on the materialization of the trajectories regarding fiscal variables.

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

According to the Copom, 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. The Committee highlights that its main scenario for inflation also considers moderation in credit expansion. Still about the credit market, the Committee considers opportune the initiatives with the aim of moderating the concession of subsidies through credit operations.

The Copom evaluates that, since last *Report*, the domestic developments, seen altogether, indicate, in the relevant horizon, a favorable internal balance of risks.

In sum, for the Copom, since last *Report*, the prospective scenario for inflation has shown favorable signs. In the Committee's perspective, at this time, there are still limited risks to the inflation path, and, so far, given the fragility of the global economy, the contribution of the external sector has been disinflationary.

In this context, continuing the process of monetary conditions adjustment, the Copom unanimously decided to decrease the Selic target from 9.75% p.a. to 9.00% and 8.50% p.a., without bias, in the April and May meetings, respectively.

The Copom believes that there have been relevant structural changes in the Brazilian economy that determined the reduction in the interest rates in general and, in particular, in the natural rate. Among other factors, the reduction in the risk premium – direct consequence of the accomplishment of the inflation targets for eight consecutive years, macroeconomic stability, and institutional advances – supports this view. Also, the process of reduction in the interest rates has been facilitated by changes in the financial and capital markets structures, by the credit market deepening as well as by fiscal surpluses that are consistent with the maintenance of the downward trend in the public debt-to-GDP ratio. For the Committee, all such changes are very likely to be permanent – although, due to business cycles, temporary reversals may take place – and contribute to the robust solvency and liquidity indicators that the Brazilian economy displays.

The Copom also considers that the increase in the supply of foreign savings and the reduction in its underlying cost contribute to the reduction in domestic interest rates, the natural rate included, which are, in the Committee's evaluation, to a large extent, permanent.

Therefore, although the recuperation of economic activity has been slower than anticipated, the Copom understands that, given the cumulative and lagged effects of monetary policy actions implemented so far, any additional monetary loosening action should be implemented with parsimony.

6.3 Inflation forecasts

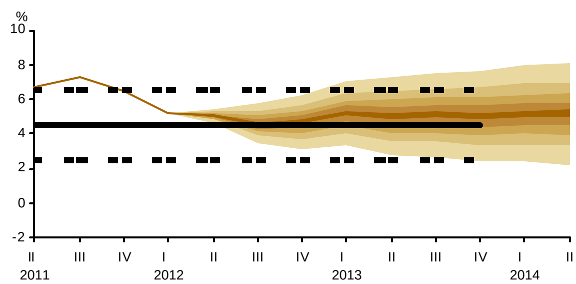
According to the usual procedures, and taking into account the available information up to the cutoff date of June 8, 2012, the baseline scenario assumes that the exchange rate remains unchanged over the forecast horizon at R$2.00/US$, and the target for the Selic rate stays at 8.50% p.a. – the level set by the May Copom meeting – against R$1.75/US$ and 9.75% p.a. considered in the March 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 March 2012 *Inflation Report*. For the last quarter of 2012, the average exchange rate has increased from R$1.75/US$ to R$1.92/US$, and for the last quarter of 2013, it has increased from R$1.75/US$ to R$1.88/US$. For the second quarter of 2014, survey expectations project an average exchange rate of R$1.89/US$. In regards to 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 9.00% p.a. to 8.00% p.a., and for the last quarter of 2013, from 10.00% p.a. to 8.92% p.a. For the second quarter of 2014, survey expectations project an average Selic rate of 8.93% p.a. This trajectory of the Selic rate is consistent with twelve-month pre-DI swap spreads of -12 basis points (b.p.) and 67 b.p., with respect to the current target for the Selic rate (8.50% p.a.), in the last quarters of 2012 and 2013, respectively.

The projection for the change in the set of regulated and monitored prices, in both scenarios, is of 3.6% in 2012. This projection is based on the assumptions, for the accumulated over 2012, of stability of the prices for gasoline; increase of 2.0% in the prices of bottled gas; increase of 1.1% in electricity rates; and variation of -1.0% in telephone rates. Regarding items for which more information is available,

Figure 6.5 – Projected IPCA-inflation with interest rate constant at 8.50% 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 8.50% p.a.
(Baseline scenario)

Year	Q	Probability Interval 50%	30%	10%				Central projection
2012	2	4.9	5.0	5.0	5.1	5.1	5.2	5.0
2012	3	4.1	4.3	4.5	4.7	4.9	5.1	4.6
2012	4	4.1	4.3	4.6	4.8	5.1	5.3	4.7
2013	1	4.4	4.8	5.1	5.3	5.6	5.9	5.2
2013	2	4.1	4.5	4.9	5.2	5.6	6.0	5.0
2013	3	4.1	4.5	4.9	5.3	5.7	6.1	5.1
2013	4	4.0	4.4	4.8	5.2	5.7	6.1	5.0
2014	1	4.0	4.5	4.9	5.4	5.8	6.3	5.1
2014	2	4.0	4.5	4.9	5.4	5.8	6.3	5.1

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

price changes were estimated individually. For the remaining items, projections are based on models of endogenous determination of regulated prices, which consider seasonal components, market price inflation and General Price Index (IGP) inflation, among others. According to these models, the projection for the change in the set of regulated and monitored prices in both scenarios is of 4.5%, for 2013 and 2014, same value considered in the last *Report*.

With regard to fiscal policy, the projections consider the accomplishment of the R$139.8 billion primary surplus target (roughly 3.10% of GDP), without adjustments, in 2012, according to parameters displayed in the Budget Guidelines Law (LDO) – 2012. Moreover, the generation of a primary surplus of R$155.9 billion (around 3.10% of GDP), without adjustments, in 2013 is considered as a working hypothesis, according to the provision of the Project of the Budget Guidelines Law (PLDO) – 2013. For 2014, it is considered as a working hypothesis the generation of primary surplus of 3.10% of GDP, without adjustments.

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

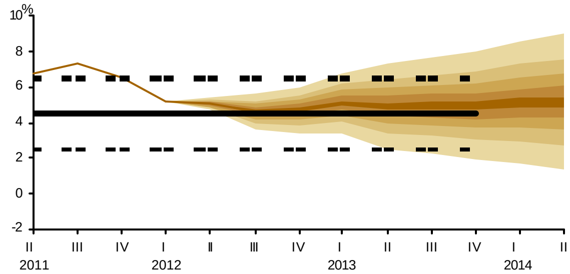
The central scenario considers the estimated effects of the current deterioration in the international scenario on the Brazilian economy, but not the presence of extreme events. It should be noted that part of this estimated impact already appears in recent price and economic activity indicators.

Based on the above assumptions and using the information set until the cutoff date (June 8, 2012), projections were constructed for the four-quarter IPCA inflation, consistent with the interest and exchange rate paths characterizing the baseline and market scenarios.

The central projection associated with the baseline scenario shows inflation of 4.7% in 2012, 0.3 p.p. higher than the projection presented in the March 2012 *Report*. As can be seen in Figure 6.5, in the baseline scenario, the projection for twelve-month inflation stays around the central target level of 4.5% determined by the National Monetary Council (CMN) throughout the year. In fact, according to data shown in Table 6.1, the projection for twelve-month inflation starts at 5.0% in the second quarter of 2012, reduces to 4.6% in the third, and moves to 4.7% in the fourth quarter. Still according to the baseline scenario, the projection for the first quarter of 2013 is 5.2%, moves to 5.0%, 5.1% and

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

Inflation fan chart



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

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

Year	Q	Probability Interval 50%	30%	10%		30%	50%	Central projection
2012	2	4.9	5.0	5.0	5.1	5.1	5.2	5.0
2012	3	4.2	4.4	4.5	4.7	4.8	5.0	4.6
2012	4	4.2	4.4	4.6	4.8	5.0	5.2	4.7
2013	1	4.4	4.7	5.0	5.2	5.5	5.8	5.1
2013	2	3.9	4.4	4.7	5.1	5.5	5.9	4.9
2013	3	3.9	4.3	4.7	5.2	5.6	6.0	5.0
2013	4	3.7	4.2	4.7	5.2	5.6	6.2	4.9
2014	1	3.7	4.3	4.8	5.4	5.9	6.5	5.1
2014	2	3.6	4.2	4.9	5.4	6.1	6.7	5.1

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

1/ According to Gerin.

Table 6.3 – March 2012 *Inflation Report* projections

Period	Baseline scenario	Market scenario
2012 I	5.5	5.5
2012 II	5.0	5.0
2012 III	4.4	4.4
2012 IV	4.4	4.5
2013 I	4.9	5.0
2013 II	5.0	5.1
2013 III	5.2	5.4
2013 IV	5.2	5.3
2014 I	5.1	5.2

5.0% in the second, third and fourth quarters, respectively. For the first two quarters of 2014, projection stays at 5.1%.

It is worth to mention that the estimated probability that inflation will breach the upper tolerance level of the target in 2012, according to the baseline scenario, is of 3%. For 2013, this probability is around 18%.

In the market scenario, the inflation projection of 4.7% for 2012 is the same as the in the baseline scenario and 0.2 p.p. higher than the projection presented in the last *Report*. As it can be seen in Figure 6.6 and Table 6.2, projections for twelve-month inflation hover around the central value of the target throughout 2012. Indeed, in the market scenario, the projection starts at 5.0% in the second quarter of 2012, decreases to 4.6% in the third, and ends the year at 4.7%. For 2013, the projection starts at 5.1% in the first quarter, decreases to 4.9% in the second, moves to 5.0% in the third, and ends the year at 4.9%. The projection for the first two quarters of 2014 is 5.1%.

Still according to the market scenario, the estimated probability that inflation will breach the upper tolerance level of the target in 2012 is of 1%. For 2013, this probability is around 20%.

The projected dynamics for both baseline and market scenarios are similar in 2012. This is partially because, even though different paths of interest rates are considered, their effects on inflation are lagged. In fact, the projected paths gradually diverge from the first quarter of 2013 on, but tend to converge at the end of the projection horizon, partly because the expected exchange rate appreciation throughout 2013, in the market scenario, partially compensates the differences in the interest rate paths.

The comparison of the trajectories shown in the *Report* with those released in the previous one – the latter shown in Table 6.3 – shows that, in general, there was an increase in the inflation projections for 2012, due to the different exchange rate paths, and tendency of decrease in 2013 in the baseline scenario. In the market scenario, similar movements in 2012 reflect, to some extent, the same factors. From the second quarter of 2013 on, the inflation projections in the market scenario are smaller than those released in the last *Report*, partly because the exchange rate path embeds a greater exchange rate appreciation in the end of 2012 and beginning of 2013, compared to the path considered in the March *Report*, which is not completely compensated by the differences in the interest rate paths.

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

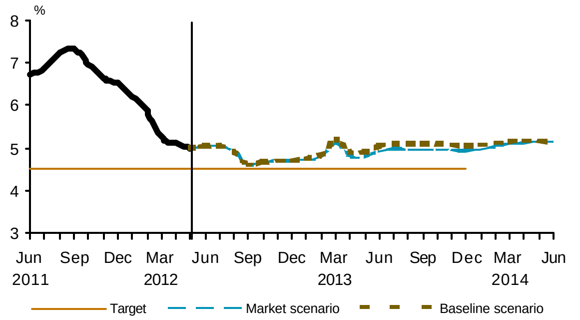
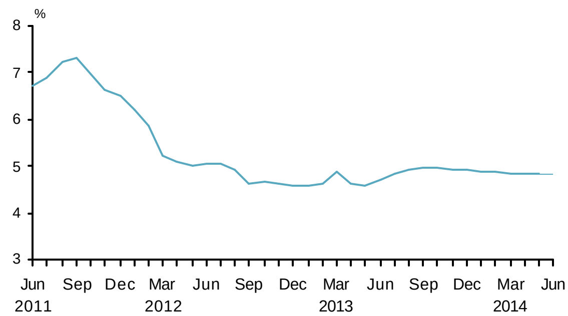


Figure 6.8 – Inflation forecast: VAR models



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 8.50% p.a. (baseline scenario)

Output fan chart

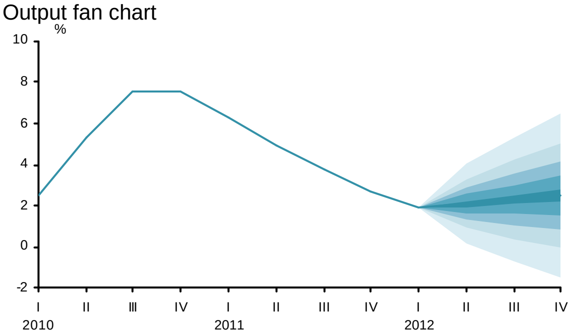


Figure 6.7 shows the path of the twelve-month inflation, according to the baseline and market scenarios, up to the second quarter of 2014, as well as the inflation target trajectory. The figures are actual twelve-month inflation until May 2012 and, from then on, projections according to the corresponding scenario are used to compose the twelve-month values. In both scenarios, the twelve-month inflation rate is projected around the central value of the target throughout 2012. From 2013 until the end of the forecast horizon, projections hover around 5%.

The average forecast generated by the Vector Autoregressive (VAR) models for the twelve-month inflation is presented in Figure 6.8. Up to May 2012, the values refer to actual twelve-month inflation and, from then on, to forecasts. When compared to the forecasts presented in the previous *Report*, there is a slight increase in the forecasts for the twelve-month inflation in 2012. This behavior persists until the third quarter of 2013, when the reversal process starts. According to the VAR models, compared to the observed in the first quarter of 2012, forecast points to a decrease in inflation throughout the year, which would end 2012 close to the central value of the target. For the first quarter of 2013, there is a blip in the inflation forecast, with reversal in the second quarter of 2013. Starting in the third quarter of 2013, VAR models forecasts converge to the unconditional mean of inflation until the end of the forecast horizon.

Figure 6.9 shows the output growth fan chart built under baseline scenario assumptions. Considering that the model which generates GDP growth projections uses two variables that are not directly observable – potential output and output gap –, the forecast errors associated with these projections are considerably higher than the errors related to inflation projections. According to this scenario, the GDP growth projected for 2012 is 2.5% (1.0 p.p. smaller than the value considered in the last *Report*). The change in the growth projection partly reflects, to some extent, the fact that the recovery is materializing in a fairly gradual pace.