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 September 2015. The chapter also presents the analysis of the inflation prospects up to the fourth quarter of 2017 and of the Gross Domestic Product (GDP) growth up to the fourth quarter of 2016. Inflation projections are presented in two major scenarios. The first scenario, termed baseline scenario, assumes that the Selic rate will remain unchanged over the forecasting horizon at 14.25% per year, which is the level set by the Copom at its most recent meeting on November 25, and that the exchange rate will remain at R$3.90 per US dollar. The second scenario, termed market scenario, employs 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 that their assumptions should not be viewed as Copom forecasts about the future behavior of interest and exchange rates. The projections released here are based on the information set available up to the cutoff date December 18, 2015.

The projections for inflation and for GDP growth released in this Report are not point estimates. They consist of probability intervals that embody the degree of uncertainty existing at the above mentioned cutoff date. Inflation projections depend not only on assumptions about interest and exchange rates, but also on a set of assumptions about 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 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 10.48% in November, 3.92 p.p. higher than the value recorded up to November 2014. On the one hand, market prices have accumulated a twelve-month change of 8.28% (6.76% until November 2014). On the other hand, regulated and monitored prices increased 17.95% (5.83% up to November 2014). Within the set of market prices, non-tradable increased 8.51% in twelve months (7.45% up to November 2014), and tradable goods increased 7.97% (6.02% up to November 2014). Twelve-month inflation in the food and beverage group was 11.54% (7.83% up to November 2014) and in the services sector – around one-third of the consumption basket of IPCA – it was 8.34% (8.29% up to November 2014).

The average monthly change of underlying inflation measures calculated by the Central Bank was 0.65% in November, from 0.63% in October, reaching 8.36% in twelve months (1.93 p.p. higher than the rate recorded in November 2014). Specifically, the non-smoothed trimmed mean core changed 0.65% in November from 0.61% in October; and the smoothed trimmed mean core changed to 0.75% from 0.66%. In turn, the exclusion core – which excludes ten items from the groups food at home and fuels – remained at 0.53%; the core that excludes the prices of monitored goods and food at home changed to 0.59% from 0.63%; and the double weighted core changed to 0.71% from 0.73%. The IPCA diffusion index reached 78.0% in November (16.6 p.p. higher than November 2014), and the three-month average reached 70.5% (8.0 p.p. above the average observed from September 2014 to November 2014).

Broader inflation, measured by the General Price Index (IGP-DI) and characterized by higher volatility when compared to the IPCA, was 1.76% in October and 1.19% in November. Accordingly, the twelve-month inflation reached 10.64% (4.10% until November 2014). The IPA, which is the main component of the IGP-DI, registered a variation of 11.27% in twelve months up to November, as the result of 14.72% inflation in the agricultural sector and of 9.95% in the industrial sector. In turn, the change in the IPC, which is the second most important component of the IGP-DI, reached 10.39% in twelve months (6.81% up to November 2014). The INCC, which is the price index with the smallest weight in the IGP-DI, increased 7.47% in twelve months (6.97% up to November 2014), due to the 8.09% change in labor cost and the 6.76% change in the cost of materials, equipment and services.
The high frequency coincident indicator of economic activity, IBC-Br, which provides monthly production estimates for the three sectors of the economy, decreased 0.63% in October, compared to the previous month, considering seasonally adjusted series. Therefore, the IBC-Br growth rate was -3.20% in the last twelve months. In turn, the PMI for Brazil shifted from 42.7 in October to 44.5 in November, pointing to a less pronounced contraction of the private sector activity.

The Industry Confidence Index (ICI) and the Services Sector Confidence Index (ICS), computed by FGV, decreased 1.4% and 1.2%, respectively, in November compared to October. On the other hand, the Consumer Confidence Index (ICC) increased 1.3% in the same period.

According to the seasonally adjusted data of IBGE, the industrial production decreased 0.7% in October, accumulating a negative change of 7.2% in twelve months. Considering non-seasonally adjusted series, the industrial production decreased 11.2% in October compared to the same month of the previous year, with negative results in the four end-use categories and in 24 of the 26 surveyed activities. Among the end-use categories and comparing the industrial production of October and September based on seasonally adjusted series, the durable consumer goods sector showed the largest reduction (-5.6%), followed by the capital goods sector (-1.9%), the intermediate goods sector (-0.7%) and the semi and non-durable consumer goods sector (-0.6%). Comparing the industrial production of October with the one for the same month of 2014, there was reduction in the four categories: capital goods (-32.6%), durable consumer goods (-28.7%), intermediate goods (-7.5%) and semi and non-durable consumer goods (-7.4%). According to seasonally adjusted data from the National Confederation of Industry (CNI), the manufacturing industry revenues decreased 4.0% in real terms from September to October of 2015 to reach a level 15.3% lower than the one observed in October 2014.

The Installed Capacity Utilization Level (Nuci) in the manufacturing sector, computed and seasonally adjusted by FGV, reached 74.6% in November. In terms of sectorial distribution, capacity utilization is more intense in the construction materials sector (78.9% according to seasonally adjusted data), and less strong in the capital goods sector (68.3%). With regard to inventories, the indicator for the manufacturing sector, calculated and seasonally adjusted by FGV, decreased in the last months. In November, 20.0% of the surveyed establishments had excessive inventories.
(23.6% in August), and 3.7% had insufficient inventories (3.3% in August), according to seasonally adjusted data. Still regarding the FGV survey, inventories remain at high levels, in particular, in the capital goods and non-durable consumer goods sectors.

The narrow retail sales volume index decreased 5.6% in October, compared to the same month of the previous year, while the broader retail sales volume index contracted 11.8% in the same basis of comparison (the monthly rates were 0.6% and -0.1%, respectively, considering seasonally adjusted series). Accordingly, the twelve-month growth rate was -2.7% for the narrow retail index and -6.8% for the broader retail index. In October, retail sales volume increased in five of the ten segments surveyed by IBGE, taking into account the seasonally adjusted index.

The Brazilian GDP at market prices decreased 1.7% in the third quarter of 2015 compared to the previous quarter (after decreasing 2.1% in the second quarter), according to seasonally adjusted data from the IBGE. Compared to the same quarter of 2014, there was a reduction of 4.5% (-3.0% in the second quarter under the same comparison basis). Brazilian GDP fell 2.5% in the last four quarters (contraction of 2.2% in the value added and of 4.6% in direct taxes). In terms of components, the production in the agricultural sector increased 2.1% in four quarters; decreased 1.6% in the services sector; and decreased 4.7% in the industrial sector.

From the aggregate demand perspective, household consumption – the largest component of aggregate demand – decreased 1.5% in comparison to previous quarter, according to seasonally adjusted data, and 4.5% compared to the same quarter of 2014. Government consumption increased 0.3% at the margin and decreased 0.4% with respect to the same quarter of 2014. The Gross Fixed Capital Formation (GFCF) decreased 4.0% compared to the previous quarter and 15.0% compared to the third quarter of 2014. With respect to the foreign trade sector, exports of goods and services decreased 1.8%, whereas imports decreased 6.9% in comparison to the second quarter of 2015 and according to seasonally adjusted data. On a year-over-year basis, exports increased 1.1%, while imports decreased 20.0%, both influenced by the depreciation of the Brazilian Real during the period.

According to the Continuous National Household Sample Survey (PNADC) of IBGE, the estimated unemployment rate was 8.9% in the moving quarter that ended in September 2015, which is 2.1 p.p. higher than in the same period of the previous year. According to the Monthly Employment
Survey (PME) of IBGE, which covers six metropolitan regions, the unemployment rate was 7.5% in November (7.9% in October), and increased 2.7 p.p. in relation to November 2014 (4.8%). Considering seasonally adjusted data, the unemployment rate increased from 7.9% to 8.2% at the margin. Still according to the PME, the average real labor income received on a regular basis decreased 1.3% in November compared to October and decreased 8.8% with respect to the same month of the previous year. With respect to formal employment, according to the data released by the Ministry of Labor and Employment (MTE), 130.6 thousand jobs were closed in November and 945.4 thousand jobs were closed in 2015. In short, available data confirm the acceleration of a process of distension in the labor market.

Total credit to households reached R$1,490.6 billion in October, with 8.4% nominal growth relative to October 2014. In particular, earmarked housing loans for households increased 18.4% and reached R$490.7 billion, which is equivalent to 8.5% of GDP. In general, delinquency rates have shown moderate increase at the margin, at levels consistent with the phase of the cycle.

Total credit to corporations amounted to R$1,666.4 billion in October (7.9% higher than registered in October 2014) and the average interest rate reached 21.5% (4.9 p.p. higher than the average rate observed in October 2014). In particular, loans and financing granted to corporations by the National Bank of Economic and Social Development (BNDES) amounted to R$623.3 billion – an increase of 10.1% relative to October 2014.

Regarding the capital market, the volume of primary issues of shares registered in the Securities and Exchange Commission of Brazil (CVM) reached R$16.1 billion in twelve months up to November 2015 (R$15.1 billion up to November 2014). In turn, debenture issues, excluding the issuance of leasing companies, totaled R$47.1 billion in twelve months up to November 2015 (R$51.8 billion in the same period of the previous year). Total corporate financing from issuances of shares, debentures, commercial papers and receivables in credit rights reached R$82.9 billion in twelve months up to November 2015 (R$106.1 billion in the same period of 2014).

With regard to foreign trade, data from the Ministry of Development, Industry and Foreign Trade of Brazil (MDIC) shows that the twelve-month trade surplus reached US$13.7 billion in November (compared to US$1.7 billion deficit in November 2014). This result stemmed from US$191.8
billion in exports and US$178.1 billion in imports, which represented decreases of 16.0% and 22.6%, respectively, in relation to the twelve-month period that ended in November 2014. Considering the twelve months up to October, exports volume increased 3.7% and the average price of exports decreased 19.6%, while imports volume decreased 11.9% and the average price of imports reduced 10.1%.

The twelve-month current account deficit reached US$74.2 billion in October 2015, which is equivalent to 4.0% of GDP. Net Profits and dividends remittances amounted to US$20.9 billion (US$27.4 billion in October 2014) and “operational leasing services” expenses, which are mostly related to oil and minerals exploitation, reached US$22.4 billion (US$21.9 billion in October 2014). It is also worth noting that imports of oil and its derivatives reached US$20.5 billion in twelve months up to October (US$34.6 billion up to October 2014), while export revenues with these products fell to US$18.5 billion from US$26.7 billion.

Foreign direct investment, which has been the main financing source of the balance of payments, amounted to US$70.7 billion in twelve months up to October, or 3.8% of GDP.

Regarding global activity, for most mature economies the prospects are of moderated growth. In Europe, despite recent monetary policy actions, investment and growth have been restrained by high unemployment rates, along with fiscal consolidation and political uncertainties. In the United States and the United Kingdom, recent data suggests that the economic recovery process continues. In emerging economies, the highlight remains with the loss of economic activity strength in China, although some signs of stabilization are perceptible. With respect to monetary policy, in general the accommodative stance prevails in mature and emerging economies, despite the beginning of the normalization process of monetary conditions in the United States. The 0.25 p.p. increase in the United States base interest rate was expected and new adjustments are likely to occur gradually. Inflation rates remain low in mature economies and relatively high in emerging markets.

Brent oil prices decreased since the release of the previous Report to levels close to US$37. The geopolitical complexity that surrounds the oil sector tends to boost volatility in prices, which also reflects the low predictability of some global demand and supply components. Regarding the other commodities, prices of metal commodities decreased 16.34% and agricultural prices fell 3.90%. In this context the price index based on 22 commodities, published by the
Commodity Research Bureau (CRB), dropped 6.71% at the cutoff date of December 18 in relation to the cutoff date of the September 2015 Report.

Median expectations of market analysts for GDP growth in 2015 deteriorated to -3.70% from -2.70% between September 18, cutoff date of the previous Report, and December 18. For 2016, the growth rate deteriorated to -2.80% from -0.80%. In the same period, the median inflation expectations for the IPCA increased to 10.70% from 9.34% for 2015; and to 6.87% from 5.70% for 2016. The non-smoothed projected inflation for the next twelve months increased 1.29 p.p., to reach 7.12% from 5.83%, as illustrated in Figure 6.1. Since the release of the September 2015 Report, the dispersion around the central inflation expectations trend for 2016 increased, as shown in Figure 6.2. The standard deviation of these projections increased to 0.62% from 0.48%.

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, underpin the main prospective scenario based on which the Committee makes policy decisions.

International evidence, which is confirmed by the Brazilian experience, suggests that high inflation rates generate distortions that elevate risks and depress investment. These distortions manifest, for instance, in the shortening of households, businesses and governments planning horizons as well as in the deterioration of business confidence. The Committee also emphasizes that high inflation rates reduce the purchasing power of wages and income transfers, with negative repercussions on household confidence and consumption. Therefore, high inflation rates reduce the growth potential of the economy as well as of jobs and income generation.

In view of this, the Copom appraises that monetary policy should contribute to consolidate favorable macroeconomic conditions in longer horizons. Along these lines, the Copom stresses that, under the inflation targeting regime, the Committee guides its decisions according to inflation projections made by the Banco Central do Brasil and based on the analysis of alternative scenarios for the evolution of main economic variables that determine price dynamics.
The Committee also understands that low risks associated with core inflation in the short term tend to reduce uncertainties with respect to the future behavior of full inflation, help the monetary authority appraise scenarios, as well as, contribute to the expectations-coordination process of economic agents, in particular of price-setters. In addition, it is noteworthy that low risks associated with core inflation in the short term tend to enhance the effects of monetary policy actions, causing them to affect full-inflation dynamics more lastingly in the future. Even though the Copom acknowledges that other macroeconomic policy actions might influence price trajectory, it restates its view that monetary policy must remain especially vigilant, so as to ensure that pressures observed in shorter horizons should not propagate to longer horizons.

On the external front, the trend for global activity since the previous Report, showed moderation, in general, in the relevant horizon for monetary policy. In this regard, evidence points to relatively more homogeneous growth rates in mature economies, albeit low and below potential growth, notably in the euro area. In international markets, prospects point to moderation in the dynamics of commodity prices. On the domestic front, in line with the ongoing macroeconomic adjustment process which has proven to be more intense and longer than anticipated, the central scenario envisages lower than potential pace of activity expansion. The realignment of domestic prices to international prices and of monitored prices to market prices are also relevant aspects on the domestic front, along with the impact on assets prices of uncertainties about the trend of fiscal variables, both in terms of the speed of improvement of fiscal results and in terms of its composition, especially after the downgrading of the country’s sovereign rating by a second rating agency.

On the international front, the prospects are of recovery of activity in some mature economies although they remain with limited space for monetary policy actions and a constrained fiscal scenario prevails. In the United States, recent data on economic growth in the third quarter confirms the trend for economic recovery reflected particularly in the labor market, in an environment of moderate levels of inflation, favored, in great part, by the fall in the prices of energy commodities. In Japan, the central bank maintains the monetary stimulus program aimed at increasing the pace of economic expansion and at avoiding the risk of a deflationary spiral. In the euro area, the ECB initiated a new round of the monetary expansion program in order to reduce the risks of deflation and stimulate economic activity.
The Copom assesses that the developments in mature economies transmit to emerging economies aggregate demand with an intensity proportional to trade and capital flows, among other factors. In this sense, recent events—on one hand, the gradual improvement in the pace of economic activity in important trade partners; and, on the other hand, volatility spots in international financial markets—are opposing forces. The Committee also highlights the importance of the transmission through the expectations channel, which affects investment, in the case of entrepreneurs, and consumption, in the case of households. In this context, the Committee notices that, despite improvements in important mature economies, a relevant set of emerging economies have shown a period of higher moderation in the pace of economic activity. Recent indicators suggest greater disparity in growth rates of emerging economies and lower levels compared to recent years.

In short, the Committee assesses that, in the relevant horizon, the scenario is of moderate global growth—despite the heterogeneity in its distribution—, combined with the depreciation of the Real against important commercial partners currencies, which contributes to a more favorable external demand that more favorable to the growth of the Brazilian economy.

The Copom considers that the external environment has remained complex since the last Report and that, despite assigning low probability for the occurrence of extreme events in international financial markets, episodes of greater volatility affecting important emerging economies have been observed.

Aggregate commodity price indices measured in US Dollars reduced slightly after a period of strong drops between June and September, notably in the metals sectors. The Committee highlights that prospects indicate a moderation in commodity price dynamics. Regarding oil prices, the Committee points out that, regardless of the behavior of domestic gasoline prices, the evolution of international prices tends to affect transmit to the domestic economy both through the productive chains, such as the petrochemical, and through inflation expectations.

On the domestic front, the Committee restates that, aligned with the ongoing macroeconomic adjustment, the available indicators of domestic absorption and GDP growth rates continued to line up and confirmed that the pace of domestic activity growth in 2015 will be below potential. This process is intensified by uncertainties originating in non-economic events. In particular, investment retracted mainly
influenced by these events and private consumption also contracted in line with recent data on credit, employment and income. Nevertheless, the Committee believes that, after a necessary period of adjustments that can be more intense and longer than anticipated, the pace of economic activity tends to increase to the extent that the confidence of firms and households strengthen. In addition, the Committee assesses that, in the medium term, important changes should occur in the composition of aggregate demand and supply. Consumption tends to grow at a moderate pace and investment tends to gain momentum. Regarding the external component of aggregate demand, the scenario of global growth, though moderate, combined with the depreciation of the Real, tends to favor the adjustment of the external accounts and the Brazilian economy growth. On the supply side, the Committee evaluates that, in longer horizons, prospects become more favorable for the competitiveness of the Brazilian industry and agriculture. The services sector, in turn, tends to grow at lower rates than those recorded in recent years.

According to the Copom’s view, the changes mentioned in the previous paragraph indicate that there is space for the pace and composition of economic growth to reach the potential in the medium term. In this context, in longer horizons, the Committee understands that there is ground for expansion of investment ratios, for a more efficient allocation of production factors and, consequently, for actual and potential GDP growth to return to higher rates. Notwithstanding, the Committee highlights that the speed at which the above mentioned changes and the gains derived from them will be achieved depends, fundamentally, on a path of primary surplus that strengths the perception of sustainability of the public sector accounts, as well as on lower uncertainties with respect to the domestic market.

In terms of factor markets, the Copom considers that the idle margin in the labor market has increased at a higher pace and some data have confirmed the acceleration of a distension process in this market. However, the Committee ponders that a significant risk prevails, particularly related to the possibility of nominal wage increases, this year and next, not compatible with productivity growth, with negative repercussions on the inflation dynamics and on the perception regarding the sustainability of consolidated public sector accounts. At this point, it is worth noting that, according to economic theory, which is endorsed by the international experience, wage moderation is a key element to achieve a macroeconomic environment with price stability.
Still regarding the labor market, the Copom understands that there are risks stemming from the presence of mechanisms in the Brazilian economy that favor inflation persistence, derived from the possibility that wage bargaining give excessive weight to past inflation in detriment to future inflation, especially in the context of the ongoing adjustment of monitored prices. In this context, despite real wage gains consistent with estimates of productivity gains and notwithstanding the current distension process in the labor market, the Committee evaluates that the wage dynamics continues to originate inflationary cost pressures.

Concerning the capital factor, the twelve-month investment rate of the economy, calculated from National Accounts of IBGE, fell for the sixth consecutive quarter in the third quarter of 2015. Specifically in the corporate segment, several factors might be associated with the poor performance of the fixed capital formation, among which is the low business confidence level, intensified by uncertainties about non-economic events and the speed of the recovery and composition of fiscal results, the evidence of narrowing profit margins and the volatility in the currency markets. Still related to the capital factor, one should note that the capacity utilization continued to drop in the quarter ending in October, remaining– on a seasonally adjusted basis– on levels below those observed during the acute phase of the 2008-2009 crisis. This process occurred despite the reduction in the sectorial heterogeneity of utilization, in the comparison with the levels observed in the previous Inflation Report.

In terms of the set of idleness indicators for the economy, the Copom points out that conventional measures of the output gap are in a disinflationary zone, in line with recent economic activity growth rates – smaller than the estimates of potential economic growth and lower than what was initially anticipated. Considering the growth prospects (according to Section 6.3), the Committee assesses that in the next quarters these output gap measures tend to remain in the disinflationary region.

Regarding fiscal policy, the Copom reiterates that the materialization of the fiscal paths and the expectations about the speed of the fiscal adjustment affect the baseline scenario for inflation. In this sense, regarding the structural fiscal balance and depending on the economic cycle, the Copom considers that, in the relevant horizon for monetary policy, the balance of the public sector tends to move to the neutral zone, not ruling out the hypothesis that it shifts to the constrained zone, albeit slowly and with less intensity than previously predicted. However, the Copom notes that
indefinition and significant changes in the trajectory of primary results generation, as well as in its composition, not only impact the working assumptions underlying inflation projections — making the balance of risks more unfavorable —, but also impact asset pricing and risk perception in the economy, contributing to create a negative assessment about the macroeconomic environment, and just as it has negatively influenced inflation expectations.

In this regard, the Copom understands that the generation of primary surpluses that strengthen the perception of public sector accounts sustainability contributes to create a positive perception about the macroeconomic environment in the medium and long run, therefore decreasing the cost of public debt financing. Moreover, a more constrained fiscal policy will have favorable implications for the cost of capital in general, which, in turn, will stimulate private investment in the medium and long runs. Given that the process of recovery of fiscal balances has occurred at a lower speed than originally predicted, it is essential to keep the commitment to resume achieving primary surpluses and that they gradually reach a level that is sufficient to stabilize and, later, to shift down the path of public debt as a share of GDP. Since the fiscal adjustment also has its own lags between the discussion and the adoption of the measures and their outcomes, the more timely the implementation of the ongoing process is, the faster is the resumption of a favorable trajectory for the public debt and for household and corporate confidence. Specifically on the issue of inflation control, the Committee highlights that the literature and the international best practices recommend a consistent and sustainable fiscal policy design, in order to allow monetary policy actions to be fully transmitted to prices.

The Copom understands that a source of inflation risk lies on the behavior of inflation expectations, negatively affected in the last months by the high level of current inflation, by the dispersion of price increases, by the ongoing processes of relative price adjustment, and mainly by the uncertainties about the speed of the recovery process regarding the fiscal outcomes and its composition. Still regarding inflation expectations, the Committee observes that expectations for 2016 have risen since August, reversing the declining trend that was observed up until then. The upward move in expectations — that took place together with the rise in uncertainties related to fiscal results — is also observed, although to a lesser extent, in market projections for 2017 and 2018. These facts are a clear and important signal of the recent worsening of the economy’s balance of risks and they
demand monitoring in order to define the next steps in the monetary policy strategy.

The Copom highlights that the main scenario envisages moderate credit expansion, which has already been noticed and tends to persist. In this regard, it is worth mentioning that after years of strong expansion, the credit market oriented to consumption underwent moderation, so that, in the last quarters, there was, on the one hand, a decline in bank exposure and, on the other, household deleveraging. Therefore, in the aggregate, one may infer that risks in the consumer credit segment have been mitigated. In another dimension, in line with instances of implemented actions, the Committee considers appropriate to reinforce initiatives aiming to moderate the concession of subsidies through credit operations.

The Copom highlights that, since the previous Report, the prices of domestic assets evolved in line with the risk aversion in international financial markets, but mainly reflecting changes in the perception of risk with respect to the Brazilian economy. In a context of increasing global risk aversion, reflecting uncertainties associated to the changes introduced in the Chinese exchange rate policy, the pace of recovery of global activity and the beginning of the normalization of the monetary policy in the United States, domestic risk premia increased more sharply than the other emerging economies throughout the first semester of 2015. In the relevant horizon for monetary policy, the Copom assesses that this global risk aversion and the volatility of international financial markets tend to react to the follow up of the gradual process of normalization of monetary conditions in the USA. However, it points out that domestic factors, especially the uncertainties related to the recovery process of fiscal balances and to the development of non-economic events influence and will continue to influence, if not promptly addressed, the prices of financial assets. As such, it is important to emphasize, once again, that eventual rises in volatility and risk aversion in international markets tend to be transmitted to domestic assets, in a discrete and incremental fashion, but that can possibly be amplified due to the lack of perception of domestic macroeconomic and financial soundness.

Specifically on the dynamics of this transmission, it is noteworthy that, on the one hand, some elements help reduce the effects of the exchange rate devaluation on domestic prices. Among these elements are, above all, the cyclical position of the economy, with the current performance and the new outlook for 2016 weaker than initially anticipated,
the current level of inventories, the more benign behavior of commodity prices in international markets and the restrictive stance of monetary policy. On the other hand, the perception of agents about the perennial nature of asset prices, in particular the current levels of the exchange rate, operates in the opposite direction, increasing the potential for transmission of risk premia and currency devaluations to domestic prices.

The Copom highlights that, in market economies and in the long run, prices tend to show relatively similar growth rates. In this sense and in line with projections reported in the next section, the Copom reiterates the effects of a realignment process between regulated and market prices. From another perspective, the Committee points out that the Real depreciated during the last three years against the currencies of important Brazilian trade partners and hence, also reiterates the effects of a realignment process between domestic and international prices. Prospectively, the Committee reaffirms that one of the monetary policy roles is to restrain the effects of these realignments on inflation to the short run, so that they do not transmit to longer horizons.

From the viewpoint of the Copom, the fact that inflation currently stands at high levels reflects, in a large part, the effects of the two-aforementioned significant and necessary relative price adjustment processes in the economy, as well as the uncertainties about the speed and composition of the recovery process of fiscal results.

In this context, as the projections presented in the next section show, the Committee points out, as previously anticipated, that these price adjustments caused inflation to rise in 2015, which requires determination and perseverance in order to prevent inflation transmission to longer horizons. While recognizing the direct impacts of these relative price adjustments on inflation, the Copom reaffirms the view that monetary policy can, should and is effectively restraining the derived second order effects resulting therefrom.

In this context, the Copom decided unanimously to maintain the rate at 14.25% p.a., without bias, at the October meeting; and, by six votes in favor and two votes for increasing the Selic rate by 0.50 p.p., to maintain the rate at 14.25% p.a., without bias, at the November meeting.

Evaluating the macroeconomic outlook and the inflation prospects, the Copom considers that uncertainties related to the balance of risks remain, mainly regarding the velocity of the process of improving fiscal results and their
composition, and that the process of relative price adjustment has been slower and more intense than anticipated. At the November meeting, part of its members argued that it would be appropriate to immediately adjust monetary conditions in order to reduce the risks of non-compliance with the objectives of the inflation targeting regime. However, most members of the Copom preferred to monitor the evolution of the macroeconomic scenario until the next meeting, and then to define the next steps of the monetary policy strategy.

In October, the following Copom members voted for the decision of keeping the Selic rate at 14.25% p.a.: Alexandre Antonio Tombini (Governor), Aldo Luiz Mendes, Altamir Lopes, Anthero de Moraes Meirelles, Luiz Edson Feltrim, Otávio Ribeiro Damaso, Sidnei Corrêa Marques and Tony Volpon. In November, the following Copom members voted for the decision of keeping the Selic rate at 14.25% p.a.: Alexandre Antonio Tombini (Governor), Aldo Luiz Mendes, Altamir Lopes, Anthero de Moraes Meirelles, Luiz Edson Feltrim and Otávio Ribeiro Damaso. The following Copom members voted for the decision of increasing the Selic rate to 14.75% p.a.: Sidnei Corrêa Marques and Tony Volpon.

The Copom reaffirms that the aggregate demand will remain moderate in the relevant horizon for monetary policy. On one hand, household consumption tends to be influenced by factors such as employment, income and credit; on the other hand, public-service concession and the expansion of agricultural income, among other factors, tend to favor investments. Net exports, in turn, present a better performance, either through export growth, benefiting from the scenario of higher growth of important trade partners and from the Real depreciation, or through the ongoing import substitution process. For the Copom, the joint effects of these elements, in addition to the fiscal, parafiscal and the asset market developments, and, in 2016, the dynamics of monitored prices are important factors for the context in which the future monetary policy decisions will be made with the objective of ensuring inflation convergence to the 4.5% target established by the National Monetary Council (CMN), in the end of 2017.

The Copom emphasizes that there are uncertainties regarding the balance of risks, mainly with respect to the speed of the recovery process of fiscal results and its composition, and that the process of relative price adjustment seems to be more intense and longer than anticipated. In this context, regardless of the delineations of the other policies, the Committee will adopt the necessary actions to ensure the achievement of the objectives of the inflation targeting regime, i.e. to
circumscribe the inflation into the limits established by the CMN, in 2016, and to make the convergence of inflation to the target of 4.5%, in 2017.

6.3 Assumptions and inflation forecast

According to traditional procedures, and taking into account the available information set, up to the cutoff date of December 18, 2015, the baseline scenario assumes that the exchange rate remains unchanged over the forecast horizon at R$3.90/US$, and the target for the Selic rate at 14.25% p.a. – the level set by the November 2015 Copom meeting – the same values considered in the September 2015 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 compared to the values released in the previous Inflation Report. For the last quarter of 2015, the average rate moved from R$3.86/US$ to R$3.85/US$. For the end of 2016, the average exchange rate moved from R$4.00/US$ to R$4.20/US$. For the end of 2017, market participants project an average exchange rate of R$4.20/US$, compared to R$3.93/US$ in the previous Inflation Report.

Regarding the evolution of the average Selic rate, the expectations for the fourth quarter of 2015 decreased from 14.25% p.a. to 14.18% p.a. and, for the fourth quarter of 2016, shifted from 12.25% p.a. to 15.08% p.a. For the end of 2017, the expectations shifted from 11.00% p.a. to 12.25% p.a. This trajectory of the average Selic rate is consistent with 360 days pre-DI swap spreads of 19 b.p., 72 b.p. and -154 b.p. with respect to the current target for the Selic rate (14.25% p.a.), in the fourth quarters of 2015, 2016 and 2017, respectively.

The projection for the change in the set of regulated and monitored prices, in both scenarios, is 18.2% for 2015, compared to 15.4% considered in the last Report. This projection is based on the variations, for the accumulated in 2015, of gasoline (20.7%), as well as on the increase of 51.6% in electricity rates. For 2016, the projected variation in the prices of the set of regulated and monitored prices in both scenarios is 5.9%, compared to 5.7% considered in the last Inflation Report. This projection considers, for fuels,
that domestic prices of gasoline and diesel are higher than international prices, constraining eventual rises. For energy prices, the projection of increase of 4.6% in 2016 considers the decrease, in dollars, of Itaipu electricity rates and the absence of changes in the system of electricity tariff bands in 2016, although risks from water resources have decreased advantageously and high-cost thermal plants were switched off. It should be highlighted that, 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 projected adjustment in the set of regulated and monitored prices in both scenarios is 5.0% in 2017.

The structural primary result that derives from the primary deficit trajectory of 0.85% of GDP in 2015 and from the primary surplus of 0.50% of GDP in 2016 is considered as the fiscal indicator. For a given period, the fiscal impulse is equivalent to the change of structural result, compared to the previous period.

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

The central projection associated with the baseline scenario indicates inflation of 10.8% in 2015, 1.3 p.p. above the projection informed in the Report of September 2015 and above the central target level of 4.5% determined by the CMN. In 2016, as can be seen in the Figure 6.3 and in the Table 6.1, in the baseline scenario, the projection for the first quarter of 2016 is at 9.2%. For the second quarter of 2016, projection reduces to 8.1%, continues to decline to 7.5% in the third quarter, and ends the year in 6.2%. In 2017, the projection for the first quarter is 5.5%, reduces to 5.4% and 5.3% in the second and third quarters, and ends the year in 4.8%.

Still in the baseline scenario, the estimated probability that inflation will breach the upper tolerance level of the target in 2016 stays around 41% and, in 2017, around 20%.

In the market scenario, the projection indicates inflation of 10.8% in 2015, same value of the baseline scenario and 1.3 p.p. above the projection informed in the last Report. As

Figure 6.3 – Projected IPCA-inflation with interest rate constant at 14.25% p.a. (Baseline scenario)

<table>
<thead>
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<td>5.4</td>
<td>5.3</td>
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</tr>
</tbody>
</table>

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

Figure 6.4 – Projected IPCA-inflation with market interest and exchange rates expectations

<table>
<thead>
<tr>
<th>Year Q</th>
<th>Probability Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50%</td>
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<tr>
<td></td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Central projection</td>
</tr>
</tbody>
</table>

Note: accumulated inflation in 12 months (% p.a.).
may be seen in Figure 6.4 and Table 6.2, the projection for the twelve-month inflation rate in the first quarter of 2016 is 9.2%. For the second and third quarters of 2016, the projection reduces to 8.2% and 7.6% respectively, ending the year at 6.3%. In 2017, the projection reduces to 5.6%, in the first quarter, shifts to 5.5% and 5.4% in the second and third quarters, and ends the year at 4.9%.

Still in the market scenario, the estimated probability that inflation will breach the upper tolerance level of the target in 2016 stays around 43% and, in 2017, around 21%.

The comparison of the trajectories presented in this Report with those released in the previous one – the latter shown in Table 6.3 –, in the baseline scenario, shows increase in inflation projections from the fourth quarter of 2015 on. This is partly due to higher projections for regulated and monitored prices and to actual inflation higher than previously projected. In the market scenario, the comparison of trajectories follows the same pattern of the trajectories of baseline scenario.

Figure 6.5 shows the path of the twelve-month inflation, according to the baseline and the market scenarios, up to the fourth quarter of 2017, as well as the inflation target path. Up to November 2015, the figures are actual inflation and, from then on, projections corresponding to the respective scenarios are used to compose the twelve-month values. In both scenarios, projections indicate that twelve-month inflation is in an ascending path until December 2015, starting a long declining path in January 2016.

The average forecast generated by the Vector Autoregressive (VAR) models, for the twelve-month inflation is in Figure 6.6. Up to November 2015, the values refer to actual inflation and, from then on, to forecasts. According to these models, the inflation declines in the course of 2016, converging to a value close to the unconditional mean at the end of the forecast horizon.

Figure 6.7 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 -3.6% for 2015 (0.9 p.p. lower than the one considered in the previous Report) and -1.9% for 2016.

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

<table>
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<th>Q4</th>
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<tr>
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<td>6.4</td>
<td>7.1</td>
<td>7.8</td>
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</table>

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

Table 6.3 – September 2015 Inflation Report projections

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<thead>
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<th>Period</th>
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<th>Market scenario</th>
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<td>2015 IV</td>
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<tr>
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<td>2016 II</td>
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<tr>
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<tr>
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<tr>
<td>2017 III</td>
<td>4.0</td>
<td>4.6</td>
</tr>
</tbody>
</table>

Note: Accumulated inflation in 12 months (% p.a.). Average forecast generated by the VAR models.
Figure 6.7 – Projected GDP growth with interest rate constant at 14.25% p.a. (Baseline scenario)
Output fan chart