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 June 2015. The chapter also presents the analysis of the inflation prospects up to the third quarter of 2017 and of the Gross Domestic Product (GDP) growth up to the second quarter of 2016. Inflation projections are presented in two major scenarios. The first scenario, called the 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 September 1 and 2, and that the exchange rate will remain at R$3.90 per US dollar. The second scenario, named the 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 September 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 the 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 9.53% in August, 3.01 p.p. higher than the value recorded up to August 2014. On the one hand, market prices have accumulated a twelve-month change of 7.70% (6.95% until August 2014). On the other hand, regulated and monitored prices increased 15.75% (5.07% up to August 2014). Within the set of market prices, the increase of non-tradable goods reached 8.60% in twelve months (7.07% up to August 2014), and of tradable goods amounted to 6.62% (6.81% up to August 2014). Twelve-month inflation in the food and beverage group was 10.64% (7.53% up to August 2014) and in the services sector – around one-third of the consumption basket of IPCA – was 8.24% (8.44% up to August 2014) and remains above the market prices inflation.

The average monthly changes of the measures of underlying inflation calculated by the Central Bank changed from 0.59% in July to 0.41% in August, reaching 7.79% in twelve months (1.12 p.p. higher than the rate recorded in August 2014). Specifically, the core that excludes the prices of monitored goods and food at home changed from 0.41% in July to 0.33% in August; the non-smoothed trimmed mean core, from 0.55% to 0.42%; the exclusion core – which excludes ten items from the groups food at home and fuels – changed from 0.71% to 0.32%; the double weighted core changed from 0.63% to 0.43%; and the smoothed trimmed mean core changed from 0.67% to 0.56%. The IPCA diffusion index reached 65.2% in August (10.2 p.p. higher than August 2014), and 66.2%, in the three-month average (7.8 p.p. above the average observed from June 2014 to August 2014).

Broader inflation, measured by the General Price Index (IGP-DI) and characterized by higher volatility when compared to the IPCA, was 0.58% in July and 0.40% in August. Accordingly, the twelve-month inflation reached 7.80% (4.63% until August 2014). The main component of the IGP-DI, the IPA, registered a variation of 7.15% in twelve months up to August, as the result of 10.45% inflation in the agricultural sector and of 5.94% in the industrial sector. In turn, the change in the IPC, which is the second most important component of the IGP-DI, reached 9.73% in twelve months (6.76% up to August 2014). The INCC, the price index with the smallest weight in the IGP-DI, increased 7.30% in twelve months (7.26% up to August 2014), due to the change of 8.59% in labor cost and of 5.87% 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 0.58% in June, compared to the previous month, considering seasonally adjusted series. Therefore, the IBC-Br growth rate was -1.61% in the last twelve months. In turn, the PMI for Brazil shifted from 40.8 in July to 44.8 in August, a five-month record high.

The Industry Confidence Index (ICI), the Consumer Confidence Index (ICC) and the Services Sector Confidence Index (ICS), computed by FGV, decreased 1.6%, 1.7% and 4.7% in August, respectively.

According to the seasonally adjusted data of IBGE, the industrial production decreased 1.5% in July, and build up in twelve months a negative change of 5.3%. Considering non-seasonally adjusted series, the industrial production decreased 8.9% in July, relative to the same month of the previous year, with negative results in the four end-use categories and in 23 of the 26 surveyed activities. Among the end-use categories and comparing the industrial production of July and June based on seasonally adjusted series, the semi and non-durable consumer goods sector showed the strongest reduction (-3.4%). The intermediate goods (-2.1%) and capital goods (-1.9%) sectors also reduced production. The durable consumer goods sector recorded the only positive result in July, with a 9.6% increase. Comparing the industrial production of July with the one for the same month of 2014, there was reduction in the four categories: capital goods (-27.8%), durable consumer goods (-13.7%), semi and non-durable consumer goods (-9.2%) and intermediate goods (-5.6%). According to seasonally adjusted data from the National Confederation of Industry (CNI), the real revenue of the manufacturing industry decreased 0.2% from June to July of 2015 and it is at a level 6.7% lower than the one observed in July 2014.

The Installed Capacity Utilization Level (Nuci) in the manufacturing sector, computed and seasonally adjusted by FGV, reached 77.7% in August. In terms of sectoral distribution, capacity utilization is more intense in the intermediate goods sector (82.2% according to seasonally adjusted data), and less strong in the capital goods sector (66.1%). With regard to inventories, the indicator for the manufacturing sector, calculated and seasonally adjusted by FGV, decreased since the release of the previous Report. In August, 21.3% of the surveyed establishments had excessive inventories (18.7% in July), and 1.7% had insufficient inventories (1.5% in July), according to seasonally adjusted data. Still regarding the Manufacturing Industry Conjuncture Survey, conducted by FGV, inventories remain at high levels, in particular, in the capital goods and durable consumer goods sectors.

The retail volume for the restricted retail trade decreased 3.5% in July, compared to the same month of the previous year, while the broader retail trade contracted 6.8% in the same basis of comparison (the monthly rates were -1.0% and -0.6%, respectively, considering seasonally adjusted series). Accordingly, the twelve-month growth rate was -1.0% for the restricted retail trade and -4.9% for the broader retail trade. In July, retail volume contracted in eight of the ten segments surveyed by IBGE, taking into account the seasonally adjusted index.

The Brazilian GDP at market prices decreased 1.9% in the second quarter of 2015 compared to the previous quarter (after decreasing 0.7% in the first quarter), according to seasonally adjusted IBGE data. Compared to the same quarter of 2014, there was a reduction of 2.6% (reduction of 1.6% in the first quarter under the same comparison basis). Brazilian economy fell 1.2% in the last four quarters (contraction of 1.0% in the value added and of 2.8% in direct taxes). In terms of components, the production in the agricultural sector increased 1.6% in four quarters; in the services sector decreased 0.5%; and in the industrial sector decreased 2.9%.

From a demand side perspective, household consumption – the largest component of aggregate demand – decreased 2.1% in comparison to previous quarter, according to seasonally adjusted data, and 2.7% compared to the same quarter of 2014. Government consumption increased 0.7% at the margin and decreased 1.1% with respect to the same quarter of 2014. The Gross Fixed Capital Formation (GFCF) decreased 8.1% when compared to the previous quarter and 11.9% when compared to the second quarter of 2014. With respect to the foreign trade sector, exports of goods and services increased 3.4%, and imports decreased 8.8%, in comparison to the first quarter of 2015 and according to seasonally adjusted data. On a year-to-year basis, exports increased 7.5%, while imports decreased 11.7%, 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 8.3% in the moving quarter that ended in June 2015, which is 1.5 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 July, 0.6 p.p. higher than in the previous month and 2.6 p.p. higher than in July 2014. Still according to the PME, the average habitual real labor income in July was statistically stable compared to June, and decreased 2.4% 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), 157.9 thousand jobs were closed in July and 494.4 thousand jobs were closed in 2015. In short, available data confirm the acceleration of a process of distension in the labor market.

In addition to rising payrolls, credit availability – largely determined by macroeconomic stability, improvement in financial system infrastructure and institutional reforms in recent years – has been an important driving force behind growth of household consumption. In this regard, total credit to households reached R$1,469.1 billion in July, with 10.5% nominal growth relative to July 2014. In particular, housing loans for households whose operations consist on earmarked resources increased 22.0% and reached R$476.7 billion, which is equivalent to 8.4% of GDP. Delinquency rates have shown stability at the margin, at levels consistent with the phase of the cycle.

The volume of credit to corporations totaled R$1,641.6 billion in July (9.4% higher than registered in July 2014) and the average interest rate reached 19.8% (3.1 p.p. higher than the average rate observed in July 2014). In particular, loans and financing to corporations with resources provided by the National Bank of Economic and Social Development (BNDES) amounted to R$615.2 billion – an increase of 13.8% relative to July 2014.

Regarding the capital market, the volume of primary issues of shares registered in the Securities and Exchange Commission of Brazil (CVM) reached R$16.2 billion in twelve months up to August 2015 (R$16.3 billion up to August 2014). In turn, debenture issues, excluding the issuance of leasing companies, totaled R$31.4 billion in twelve months up to August 2015 (R$72.1 billion in the same period of the previous year). In total, firms financing from capital markets by means of issues of shares, debentures, commercial papers and receivables in credit rights reached R$73.4 billion in twelve months up to August 2015 (R$124.0 in the same period of 2014).

With regard to the trade balance, based on the Ministry of Development, Industry and Foreign Trade of Brazil (MDIC), the twelve-month superavit reached US$3.0 billion in August (compared to US$6.3 billion superavit in August 2014). This result stemmed from US$199.4 billion in exports and US$196.4 billion in imports, which represented decreases of 16.7% and 15.7%, respectively, in relation to the twelve-month period that ended in August 2014. Considering the twelve months up to August, the exported volume increased 0.4% and the average price of exports decreased 16.6%, while the imported volume decreased 8.4% and the average price of imports diminished 8.3%.

The twelve-month current account deficit reached US$89.4 billion in July 2015, which is equivalent to 4.3% of GDP. The remittances of profits and dividends totaled US$21.9 billion on a net basis (US$24.8 billion in July 2014) and the expenses under the item called "operational leasing services", which are mainly meant to oil and minerals exploitation, reached US$23.0 billion (US$21.6 billion in July 2014). It is also worth noting that imports of oil and oil derivatives reached US$25.3 billion in twelve months up to July (US$34.1 billion up to July 2014), while export revenues of these products shifted from US$26.4 billion to US$21.1 billion.

Foreign direct investments, which have been the main financing source of the balance of payments, totaled US$78.4 billion in twelve months up to July, equivalent to 3.8% of GDP.

Regarding global activity, since the previous Report, leading indicators point to economic growth compatible with trend in important mature and emerging economies in the relevant horizon for monetary policy. In Europe, despite recent improvements, high unemployment rates, along with fiscal consolidation and political uncertainties constitute elements of investment and growth restraint. In the United States, there is a consolidated view regarding the sustainability of economic recovery observed in the last quarters. In emerging economies, the pace of economic activity has been revised down. In regard to monetary policy, accommodative stance prevails, in general, in mature and emerging economies, despite ongoing discussions about the normalization of monetary conditions.

Brent oil prices decreased, since the release of the previous Report, to levels close to US$47. The geopolitical complexity that surrounds the oil sector tends to boost the volatile behavior of prices, which also reflects the low predictability of some global demand and supply components. Regarding other commodities, prices of metal commodities decreased 10.4% and agricultural prices fell 2.06%.

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

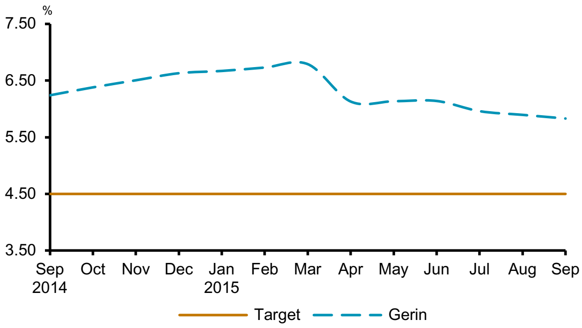
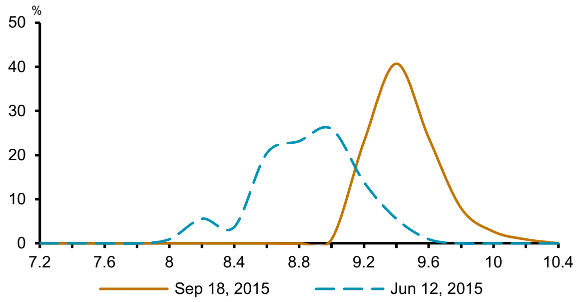


Figure 6.2 – Dispersion of inflation expectations for 2015
Relative frequency



In this context, at the cutoff date of September 18, the price index based on 22 commodities, published by the Commodity Research Bureau (CRB), dropped 4.62% in relation to the cutoff date of the June 2015 Report.

Median expectations of market analysts for the GDP growth rate in 2015 moved from -1.35% to -2.70%, between June 12, cutoff date of the previous Report, and September 18. For 2016, the growth rate shifted from 0.90% to -0.80%. In the same period, the median of inflation expectations, as measured by the IPCA, went from 8.79% to 9.34%, for 2015; and from 5.50% to 5.70%, for 2016. The projected inflation for the next twelve months decreased 0.28 p.p., shifting from 6.10% to 5.82%, as illustrated in Figure 6.1. Since the release of the June 2015 Report, the dispersion around the central tendency of inflation expectations for 2015 showed some reduction, as shown in Figure 6.2. The standard deviation of these projections decreased from 0.30% to 0.20%.

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 main macroeconomic variables. This set of assumptions, as well as, the risks associated with them make up the main prospective scenario on which the Committee makes policy decisions.

International evidence, which is ratified by the Brazilian experience, shows that high inflation rates generate distortions that lead to higher risks and depress investments. These distortions are manifested, for example, in shortening the planning horizons of households, businesses and governments, as well as in the deterioration of businessmen's confidence. The Committee also emphasizes that high inflation rates subtract the purchasing power of wages and transfers, with negative repercussions over household's 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 the monetary policy should contribute to strengthen a favorable macroeconomic environment in longer horizons. Along these lines, the Copom stresses that, under the inflation target regime, the Committee guides its decisions according to inflation projections made by the Banco Central do Brasil and based on the analysis of alternative scenario for the evolution of main economic variables that determine price dynamics. The Committee also understands that low risks associated to core inflation in the short term tend to reduce uncertainties related to the future behavior of full inflation, help the monetary authority to appraise scenarios, as well as, contribute to the expectations-coordination process of economic agents, in particular, of price-setters. In addition, the Committee notes that low risks associated to core inflation in the short term tend to enhance the effects of monetary policy actions, causing them to affect in a more lasting way the full-inflation dynamics in the future. Even though the Copom acknowledges that other monetary-policy actions can influence the path of prices, it restates its view that monetary policy has to bear the burden of being especially vigilant, as to ensure that pressures observed in shorter horizons should not spread to longer ones.

On the external side, in general, since the previous Report, the trend for global activity showed higher moderation in the relevant horizon for monetary policy. In this regard, evidence points to relatively more homogeneous growth rates in mature economies, although low and below potential growth, notably in the euro area. In international markets, prospects point to moderation in the dynamics of commodities' prices, as well as the occurrence of new volatility spots in currency and fixed income markets. On the domestic side, in line with the ongoing macroeconomic adjustment – which can be longer and more intense than anticipated –, the central scenario envisages a pace of activity lower than potential. Besides the realignment of domestic relative to international prices and of monitored relative to market prices, the impacts of the expectations about the trend of fiscal variables on assets prices are also relevant aspects of the domestic context, especially after the recently announced changes – but not yet consolidated – in fiscal targets and the downgrading of the country's sovereign rating by an important rating agency.

On the external front, despite remaining limited the space for monetary policy and prevailing a scenario of fiscal restriction, prospects indicate recovery of activity in some mature economies. In the United States, the revision of economic expansion figures for the first semester of 2015 confirms the trend for economic recovery reflected 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 to increase economic expansion rate and avoid the risk of a deflationary spiral.

In the Euro area, recent data on the economic activity level contrast with ECB forecasts of lower growth and indicate that its monetary expansion program has contributed to reduce the risk of deflation. Additionally, the decline of oil prices and the devaluation of the euro contribute, in general, for better growth prospects in the euro area, despite a few remaining risks. Regarding risks for global activity, it is worth mentioning the ones deriving from the volatility related to uncertainty about the start of the normalization process of monetary conditions in important mature economies, despite the reassurance of its gradualism.

The Copom evaluates that the developments in mature economies are transmitted to emerging economies' aggregate demand at an intensity that is proportional to, among other factors, trade and capital flows. In this sense, recent events – on one hand, the improvement, even though gradual, in the activity pace of significant trade partners; and, on the other hand, changes in the slope of the yield curve in important financial centers and volatility spots in the 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, the main emerging economies have shown a period of transition and moderation in the pace of economic activity, in spite of the resilience of domestic demand. Recent indicators suggest greater disparity in growth rates for emerging economies and lower levels than recorded in recent years.

In short, the Committee assesses that, in the relevant horizon, the scenario of higher moderation in global growth – despite the disparity of its distribution –, combined with the depreciation of the Real relatively to important commercial partners' currencies, move toward making the external demand more favorable to the growth of the Brazilian economy.

The Copom considers that, since the last Report, risks for global financial stability remained high, in particular the ones derived from changes in the slope of the yield curve in important mature economies. These risks translate, for instance, into the increase of risk premia combined with the fall of asset prices. In fact, the prices of credit default swaps (CDS) of banks and some sovereigns – in particular, of emerging countries – have increased through this quarter, at the same time that stock markets showed significant fluctuation episodes since last Report. Despite identifying low probability of occurring extreme events in international financial markets, the Committee assesses that the external environment remains complex with higher volatility episodes affecting important emerging economies.

Aggregate commodity prices indexes measured in United States dollars showed reduction, after a period of relative stability between February and May this year, notably in the energy and metals sectors. The Committee highlights that, notwithstanding the recent volatility observed in the markets, prospects indicate a moderate dynamics for commodities prices. Specifically regarding oil prices, the Committee stresses that their influence on domestic inflation does not materialize exclusively through the local price of gasoline, but also via the petrochemical production chain and the expectations channel of consumers and entrepreneurs.

On the internal side, 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 growth in domestic activity in 2015 will be below potential. This process is intensified by uncertainties derived from non-economic events. In particular, investment has decreased mainly influenced by these events and private consumption shows signs of contraction 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 activity tends to increase to the extent that the confidence of firms and households strengthen. In addition, the Committee believes that, in the medium term, major changes must occur in the composition of aggregate demand and supply. Consumption tends to grow at a moderate pace and investments tend 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 sustainable growth of the Brazilian economy. On the supply side, the Committee evaluates that, over longer periods, prospects are more favorable for the competitiveness of 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 there is space for a growth pace and a growth composition in the medium term that can move towards potential growth. Also, point in this direction improvements in the workforce qualification and the program of public services concessions. In this context, in longer terms, the Committee understands that there is ground for expansion of the investment rates, for a more efficient allocation of the production factors and, consequently, for GDP growth rate and potential growth rate to return to higher levels. The Committee highlights, however, that the speed with which the above mentioned changes and the gains derived from them will be achieved depends, on the domestic side, on the confidence strengthening of firms and households, on the solution of uncertainties from the aggregate supply side and on the materialization of the assumed path for fiscal variables; on the external side, it depends on the solution of uncertainties that are now present, for instance, in monetary policy of important mature economies.

In terms of factor markets, the Copom considers that the idle margin in the labor market has increased at a more intense pace and some data have confirmed the acceleration of a distension process in this market. However, the Committee ponders that a significant risk, particularly related to the possibility of real wage increases, this year and next, not compatible with productivity growth, with negative impacts on the inflation dynamics and, in the public sector, on the perception of the sustainability of its consolidated accounts, still prevails. 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 a macroeconomic environment with price stability.

Still regarding the labor market, the Copom understands that there are risks, due to the presence of mechanisms in the Brazilian economy that favor the persistence of inflation, derived from the possibility that wage bargaining gives excessive weight to past inflation at the expense of future inflation, especially in the context of the ongoing adjustment of monitored prices. In this context, despite the occurrence of real wage gains near to the levels consistent with estimates of productivity gains and notwithstanding the current distension process on the labor market, the Committee evaluates that the wage dynamics remains originating inflationary cost pressures.

Concerning the capital factor, the twelve-month investment rate of the economy, calculated according to the current National Accounts methodology of IBGE, fell for the fifth consecutive quarter in the second quarter of 2015. Specifically in the business segment, several factors could be associated with the poor performance of the fixed capital formation, among which figures the low confidence of entrepreneurs, intensified by recent uncertainties about non-economic events, the evidence of narrowing profit margins and the volatility in currency markets. Still on the capital factor, one should note that the capacity utilization showed a sharp decrease in the quarter ending in July, reaching levels – on a seasonally adjusted basis– below those observed during the acute phase of the 2008-2009 crisis. The heterogeneity degree of sectorial utilization has also increased, surpassing the levels observed in the previous Inflation Report.

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

Regarding fiscal policy, the Copom reiterates that the main scenario for inflation takes into account the materialization and consolidation of the trajectories with which it works for the fiscal variables. 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 and does not rule out the hypothesis of migration to the contention zone, yet more slowly and with less intensity. However, the prospect of a new trajectory change for the fiscal variables, implicit in the budget proposal for 2016, has affected expectations and, in a significant way, asset prices. In this regard, the Copom notes that significant changes in the trajectory of generated primary surpluses impact not only the working hypotheses underlying inflation projections, but also the pricing of assets and the risk perception of the economy, contributing, if there is no change in direction, to a negative assessment about the macroeconomic environment in the medium and long term.

In this regard, the Copom understands that the generation of primary surpluses that strengthen the perception of sustainability of public sector accounts will contribute to create a positive perception about the macroeconomic environment in the medium and long runs, therefore, decreasing the cost of public debt financing. Moreover, a more restricted 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 outcomes has occurred in lower speed than originally predicted, it is essential that the resumption of positive primary results is kept as a determined goal. As 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, the faster the resumption of a favorable trajectory for the public debt and for the confidence of families and firms. 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 risk for inflation 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 ongoing processes of relative price adjustment, among other factors. One should note that the systematic mismatch between increases in wages and prices, the high inflation diffusion and the price rises of goods and services frequently purchased – such as food and public service goods – constitute indicators that perceived inflation by economic agents may be higher than effective inflation. Still regarding inflation expectations, the Committee observes that they are near or at the 4.5% p.a. target in the medium and long runs. For the end of 2016, however, the Copom highlights the recent increase in the difference from inflation expectations to the target, after there had been some progress in the convergence process. This increase remains small in magnitude compared to the levels observed in the previous Inflation Report, and occurs despite the significant increase in inflation expectations for the current year and the deterioration in the perception of economic agents about the balance of risks and the fiscal trajectory. These facts are a clear and important signal of, on the one hand, the progress with the implementation of the current strategy of monetary policy, but, on the other, the consequences of the deterioration in the balance of risks.

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 related to consumption underwent moderation, so that, in the last quarters, there were, on the one hand, reducing exposure by banks and, on the other, household deleveraging. Taken together, therefore, one may infer that risks in the consumer credit segment have been mitigated. In another dimension, following the example of some 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 developed according to the risk aversion in international financial markets, but mainly reflecting changes in the perception of risk of the Brazilian economy. After a period of relative stability, the risk aversion grew again during the quarter ended in August, reflecting, initially, the standoff with regard to Greece and the beginning of losses in the Chinese stock markets, and, in the sequence, uncertainties associated with amendments in the Chinese exchange rate policy, with the pace of recovery in global activity and with the start of the normalization of US monetary policy. In the relevant horizon for monetary policy, the Copom assesses that this risk aversion and the volatility of international financial markets tend to react to signals on how new activity indicators will be analyzed by authorities, providing relevant information on the timing of the start of the normalization process of monetary conditions in large blocks, particularly in the United States, minimizing volatility and risks. Additionally, it points out that domestic factors, especially in the area of the current decision-making process about fiscal policy, has influenced and will continue to influence, if not promptly addressed, the prices of these financial assets. 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 also possibly 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 to reduce the effects of the exchange rate devaluation on domestic prices. Among these elements, there 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 from risk premia and 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 point of view, the Committee points out that the Real depreciated during the last three years against currencies of important Brazilian trade partners and then, also reiterates a realignment process between domestic and international prices. Prospectively, the Committee reaffirms that one of the monetary policy functions is to make effects of these realignments on inflation restricted to the short run, with no transmission over 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 two-aforementioned significant and necessary relative price adjustment processes in the economy.

In this context, as the projections presented in the next section show, the Committee points out, as previously anticipated, that these adjustments cause inflation to rise in the short run and to remain high in 2015, which requires determination and perseverance in order to hinder inflation transmission to longer terms. 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 in a way to keep them restricted to 2015.

In this context and assessing the macroeconomic scenario, the outlook for inflation and the current balance of risks, the Copom decided unanimously to raise the Selic rate in 0.50 p.p. to 14.25% p.a., without bias, at the July meeting; and, unanimously, to maintain the rate at 14.25% p.a., without bias, at the September meeting.

The Copom understands that maintaining this level of the basic interest rate, for sufficiently long period, is necessary for the convergence of inflation to the target in the end of 2016.

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

The Copom reiterates that the aggregate demand tends to 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, real-estate financing, public-service concession and expansion of agricultural income, among other factors, tend to favor investments. Exports, in turn, should benefit from the scenario of higher growth of important trade partners and from the Real depreciation. For the Copom, the joint effects from these elements, the parafiscal and the asset market developments and, in this year, the dynamic of recomposition of monitored prices are important factors for the set-up in which the future monetary policy decisions will be taken with the objective of ensuring inflation convergence to the 4.5% target, established by the National Monetary Council (CMN)¸ in the end of 2016.

In this context, the Copom evaluates that the scenario of inflation convergence to 4.5% in the end of 2016 has been maintained, despite some deterioration of the balance of risks aggravated by the recent effects of the downgrading of Brazil's sovereign rating. On one hand, for Copom, the achievements regarding the inflation control – such as favorable signs from medium- and long-term expectations indicators – show that monetary policy strategy is in the right direction. In respect to this, certain risks that are still present for the inflation forecasts of Copom to reach safely 4.5% in the end of 2016 are consistent with the lag and cumulative effects of monetary policy. On the other hand, recent increases in risk premia that reflect in asset prices force monetary policy to remain vigilant in case significant deviations of inflation forecasts from inflation target.

6.3 Assumptions and inflation forecast

According to traditional procedures, and taking into account the available information set, up to the cutoff date of September 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 September 2015 Copom meeting – against R$3.10/US$ and 13.75% p.a. considered in the June 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$3.19/US$ to R$3.86/US$. For the end of 2016, the average exchange rate moved from R$3.30/US$ to R$4.00/US$. For the end of 2017, market participants project an average exchange rate of R$3.93/US$, compared to R$3.40/US$ in the previous Inflation Report.

Regarding the evolution of the average Selic rate, the expectations for the fourth quarter of 2015 increased from 14.00% p.a. to 14.25% p.a. and, for the end of 2016, shifted from 12.00% p.a. to 12.25% p.a. For the end of 2017, the expectations were kept in 11.00% p.a. This trajectory of the average Selic rate is consistent with 360 days pre-DI swap spreads of -69 b.p., and -169 b.p. with respect to the current target for the Selic rate (14.25% p.a.), in the fourth quarters of 2015 and 2016, respectively.

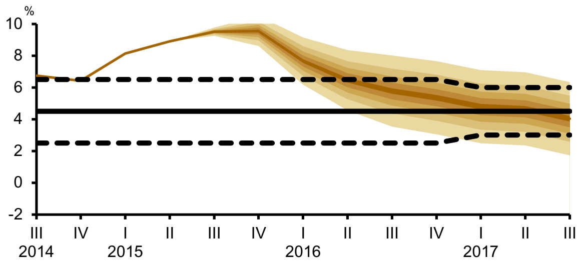
The projection for the change in the set of regulated and monitored prices, in both scenarios, is 15.4% for 2015, compared to 13.7% considered in the last Report. This projection is based on the variations occurred, up to August, in gasoline (9.6%) and assumptions of increasing for the accumulated in 2015 of bottled gas (15.0%) prices, as well as assumptions of reduction of 3.5% in landline telephone rates and increase of 49.6% in electricity rates. 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 5.7% in 2016, 0.4 p.p. higher than the one in the last Report.

The structural primary surplus that derives from the primary surplus trajectories of 0.15% of GDP in 2015 and 0.70% of GDP in 2016 is considered as the fiscal indicator. For a given period, the fiscal impulse is equivalent to the change of structural surplus, 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

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

Inflation fan chart



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

Table 6.1 – Projected IPCA-inflation with interest rate constant at 14.25% p.a.
(Baseline scenario)

Year	Q	Probability Interval 50%	30%	10%		30%	50%	Central projection
2015	3	9.4	9.4	9.5	9.5	9.6	9.6	9.5
2015	4	9.2	9.3	9.5	9.6	9.8	9.9	9.5
2016	1	7.0	7.3	7.5	7.8	8.0	8.3	7.7
2016	2	5.7	6.0	6.3	6.6	6.9	7.2	6.5
2016	3	4.9	5.2	5.6	5.9	6.3	6.7	5.8
2016	4	4.4	4.8	5.2	5.5	5.9	6.3	5.3
2017	1	3.8	4.2	4.6	5.0	5.3	5.7	4.8
2017	2	3.7	4.1	4.5	4.8	5.2	5.6	4.7
2017	3	3.1	3.5	3.9	4.2	4.6	5.0	4.0

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

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 9.5% in 2015, 0.5 p.p. above the projection informed in the Report of June 2015, and also above the central target level of 4.5% determined by the CMN. As can be seen in the Figure 6.3 and in the Table 6.1, in the baseline scenario, the projection for the third and fourth quarters of 2015 is at 9.5%. In 2016, the projection reduces to 7.7% in the first quarter, 6.5% and 5.8% in the second and third quarters, respectively, and ends the year in 5.3%. In 2017, the projection for the first quarter is at 4.8% and reduces to 4.7% and 4.0% in the second and third quarters of 2017.

Still in the baseline scenario, the estimated probability that inflation will breach the upper tolerance level of the target in 2015 stays around 99% and, in 2016, around 20%.

In the market scenario, the projection indicates inflation of 9.5% in 2015, same value of the baseline scenario and 0.4 p.p. above the projection informed in the last Report. As may be seen in Figure 6.4 and Table 6.2, the projection for the twelve-month inflation rate in the third and fourth quarters of 2015 is at 9.5%. For the first quarter of 2016, the projection is 7.7%, reduces to 6.4% and 5.8% in the second and third quarters respectively, ending the year at 5.4%. In 2017, the projection reduces to 5.1%, in the first and second quarters and to 4.6% in the third quarter.

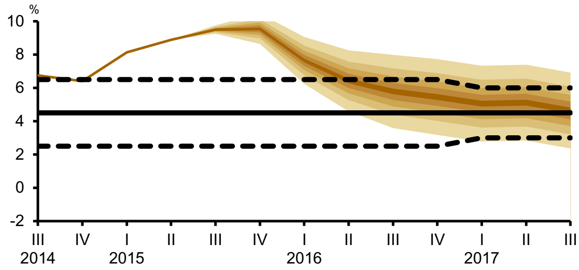
Still in the market scenario, the estimated probability that inflation will breach the upper tolerance level of the target in 2015 stays around 99% and, in 2016, around 22%.

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 third quarter of 2015. This is partly due to higher projections for variations of regulated and monitored prices and for foreign exchange depreciation considered in the exercises. 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 third quarter of 2017, as well as the inflation target path. Up to August 2015, the figures are actual inflation and, from then on, projections corresponding to the respective scenarios are

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

Inflation fan chart



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

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

Year	Q	Probability Interval 50%	30%	10%				Central projection
2015	3	9.4	9.4	9.5	9.5	9.6	9.6	9.5
2015	4	9.2	9.3	9.5	9.6	9.8	9.9	9.5
2016	1	7.1	7.3	7.5	7.8	8.0	8.2	7.7
2016	2	5.7	6.0	6.3	6.6	6.9	7.2	6.4
2016	3	4.9	5.3	5.6	6.0	6.3	6.7	5.8
2016	4	4.5	4.9	5.3	5.6	6.0	6.4	5.4
2017	1	4.1	4.5	4.9	5.2	5.6	6.0	5.1
2017	2	4.2	4.6	4.9	5.3	5.6	6.0	5.1
2017	3	3.7	4.1	4.5	4.8	5.2	5.6	4.6

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

1/ According to Gerin.

Table 6.3 – June 2015 Inflation Report projections

Period	Baseline scenario	Market scenario
2015 II	9.0	9.0
2015 III	9.3	9.3
2015 IV	9.0	9.1
2016 I	6.7	6.8
2016 II	5.4	5.5
2016 III	5.0	5.2
2016 IV	4.8	5.1
2017 I	4.7	5.0
2017 II	4.5	4.8

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

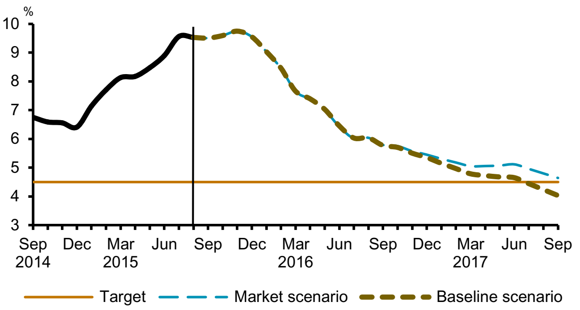
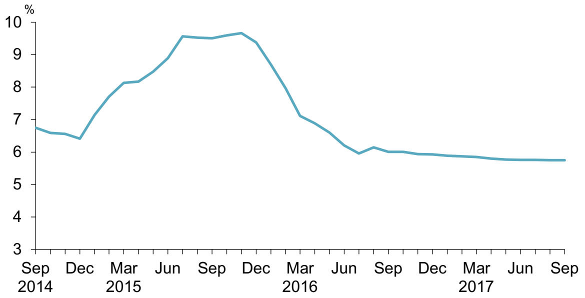
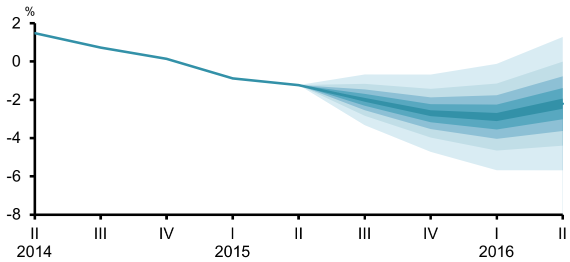


Figure 6.6 – Inflation forecast: VAR models



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



used to compose the twelve-month values. In both scenarios, projections indicate that twelve-month inflation tends to remain high in 2015, but, in the end of this year, should enter in a long declining path.

The average forecast generated by the Vector Autoregressive (VAR) models, for the twelve-month inflation is presented in Figure 6.6. Up to August 2015, the values refer to actual inflation and, from then on, to forecasts. According to these models, the inflation projection remains around this level in the third quarter of 2015, and then starts to decline in December 2015, converging 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 -2.7% for 2015 (1.6 p.p. lower than the one considered in the previous Report), and -2.2% for four quarters accumulated up to the second quarter of 2016.