



**MONETARY POLICY REPORT  
PRESENTATION BEFORE THE HONORABLE  
SENATE OF THE REPUBLIC\***

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6 September 2017

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\* The *Monetary Policy Report* of September 2017 can be downloaded from <http://www.bcentral.cl/en>.

## **Introduction**

Mr. President of the Senate, Senator Andrés Zaldívar, honorable senators, ladies, gentlemen,

Thank you for inviting the Board of the Central Bank of Chile to present our September Monetary Policy Report. As is the case every September, its publication coincides with the annual report that, as provided for in the CBC's Organic Law, we must submit to the Senate. The report I will be summarizing for you now depicts the Board's vision about the recent macroeconomic and financial developments in Chile and the world, together with prospects and implications for the conduct of monetary policy. It also includes the CBC's financial results for the first half of the year, plus the results of international reserves management and a summary of the main decisions adopted by the Board this year to date.

This presentation will describe two additions to the traditional report, namely an analysis of the determinants of trend GDP in Chile—as a supplement to the Report—and some refinements that the Board has decided to apply to the monetary policy process, summarized in a box alongside the main text.

With these additions, we reaffirm the Board's decision to not only disclose rigorously how the institution is managed, but also use its autonomy to improve the quality and transparency of its processes beyond what it is strictly required by law.

## **The Monetary Policy Report**

In recent months, inflation and growth were below the estimates in the June Report. However, the main differences were related to factors that we consider to be transitory, in particular supply-side factors that affected the performance of activity and the level of certain prices. For this reason, neither the outlook for the economy for the next two years nor the general orientation of monetary policy, differs much from the projections contained in it.

In the baseline scenario I will examine in a moment, core inflation—the CPIEFE— will gradually return to 3% as from mid-2018, after several months around 2%, while headline inflation will rise somewhat faster, as prices of its most volatile components return to their historical patterns and market expectations about the world prices of fuel and foodstuffs are confirmed.

We expect GDP growth to pick up beginning in the second half of this year. With this, the activity gap should remain fairly stable for some time, to begin closing gradually towards the second half of 2018.

In this context, the Board of the CBC has kept the monetary policy interest rate (MPR) at 2.5% and in the baseline scenario it expects to maintain a significant monetary impulse throughout the next two years, with an MPR that, in baseline scenario conditions, should

remain around its current levels and start approaching neutrality only when the economy begins to close the activity gap.

Now, let me describe in further detail what we estimate to be the most likely macroeconomic scenario for the coming quarters and its related risks.

At July, annual CPI inflation descended to 1.7%, thus accumulating a sharper fall than was foreseen in June. Its core component has evolved in line with forecasts, to near 2% annually, and continues to reflect slightly negative annual variation rates for goods inflation, and above 3% for services (figure 1). The evolution of the more volatile prices, particularly of fresh fruits and vegetables, has been a major factor in inflation falling below expectations. This is mainly associated with the unusual seasonal behavior that some products exhibited this year. Going forward, these prices are expected to be in line with historic patterns and help bring inflation to the target. Still, by their nature, these products can always be a source of inflationary surprises.

In the second quarter, GDP rose 0.9% annually, with other sectors growing 1.1%, less than expected in June. The economy was affected by significant differences in the number of days worked, including an irrevocable holiday in April, whose impact was higher than estimated. In fact, in annual terms, the seasonally-adjusted series of total and other GDP grew more than the original series: 1.3% and 1.5% respectively (figure 2). Second-quarter activity was also influenced by some one-time shocks that hit the manufacturing industry. Even so, the stronger impulse of the more consumer-related activities, such as trade and services, continues to stand out, while some investment-related sectors, such as construction and some business services, have weakened further.

Total domestic demand increased 3.9% annually in the second quarter, with significant inventory build-up, partly responding to replenishments after a long period of depletion. However, there are signs that it may have been more than the state of the cycle would suggest, which could result in reduced imports in the coming months.

In turn, final domestic demand —excluding inventories— was somewhat lower than expected, and continued to account for the dissimilar behavior of consumption and investment (figure 3). Consumption shows a somewhat stronger growth, with improvements in several of its fundamentals. One important concern about the economy early in the year was the deterioration of the labor market, in particular the salaried employment drop in annual terms. This was one of the risk factors that led us to accelerate the MPR reduction at the beginning of the year. This risk has faded in recent months. Indeed, in the last few months salaried employment has resumed its positive annual variation rates and some of its quality indicators have ceased to deteriorate. Among them, an increase in private employment under contract and a decrease in involuntary part-time work are worth singling out. Self-employment, although growing at a higher rate than its salaried counterpart, has slowed down and the unemployment rate is now near its levels of a year ago, slightly higher than at the end of the first quarter (figure 4).

Nominal wages' annual growth rate stopped falling. In June they expanded between 4.4% and 5.0%, compared with rates of 5.5% and 6.0% in June of 2016. Real wages increased

their annual variation, mainly due to low inflation. All this contributed to real incomes, measured by the real wage bill, slightly increasing their annual growth rate, to 3%. Add to this that consumer expectations have improved systematically in the last five months, although they are still in pessimistic territory. Moreover, the cost of credit is at record lows, consistent with the expansionary instance of monetary policy (figure 5).

Unlike consumption, investment remains weak, especially its construction and works component, which has steepened its annual fall from mid-2016, hand in hand with a drop in housing investment and reduced public investment. Investment in machinery and equipment, despite some annual deceleration from the previous quarter, continues to outperform recent years, especially after discounting the non-regular transportation item, thus accumulating a nine-month string of positive growth rates (figure 6).

On the external side, a more favorable scenario for the emerging world and Chile has been strengthening. The terms of trade have improved, with copper prices above \$3 per pound in recent weeks. This, in a context in which the price of oil, with fluctuations and considering the Brent - WTI average, is slightly below those at the cutoff date of the previous Report. The copper price rise has coincided with a well-stocked market despite supply-side problems, in the context of a weak dollar. China's low interest rates and better performance lend support to higher prices in the short term. In any case, although its price is not expected to remain stable, it is projected to average more than June's estimates. In our baseline scenario, the pound of copper should trade at an average of \$2.75 in 2017-2018, and at \$2.70 in 2019.

Stronger economic growth in the developed world has also consolidated. The United States, like it did several quarters ago, shows a good performance of consumption and a dynamic labor market. Europe has seen a strong recovery in its growth rates, all across the economies making up the group, beyond the differences that persist among them in variables such as the size of the gap and the unemployment rate. Growth in Japan surprised positively, and expectations have been revised upwards.

Meanwhile, inflation has tended to subside and the monetary authorities of the developed world have made no big changes to their monetary policy strategies. Nevertheless, the market has been incorporating some moderation into its vision of the US monetary policy and some more intensity in that of the Eurozone, which partly explains the global depreciation of the dollar.

Emerging currencies have benefited from the weak dollar, the better prices of commodities and increased risk appetite. Comparing the statistical closures of this and the previous Reports, the peso has appreciated by around 4.5%, which, in real terms, translates into a decrease of approximately 3.5% of the real exchange rate. Thus, at the last cutoff date it was fluctuating around 90 in its 1986 = 100 measurement, lower than its averages of the last 15 or 20 years. Moreover, in the days following the statistical closure, the peso has continued to appreciate in both nominal and real terms. As a working assumption, the baseline scenario of this Report assumes a slight depreciation in real terms over the projection horizon (figure 7).

Turning to the performance of the emerging economies, in the first half of the year China grew 6.9% annually, exceeding expectations. These figures raise the baseline scenario estimate, although some moderation in activity is assumed for the second half, in line with the latest data on manufacturing output, retail sales and investment (figure 8). In Latin America, the recovery of activity has been slower, with poor performance of investment and sectors unrelated with natural resources. This, despite the favorable external scenario and the fact that the lower inflation has allowed to boost the monetary impulse, which is partly associated with idiosyncratic factors.

Although somewhat less severe, the problems of fiscal consolidation in Brazil and Argentina, the political definitions during this and next year, concerns about the future of NAFTA and its effects on Mexico, among others, continue to worry. In Colombia, the decrease in consumption resulting from the VAT increase and the fragility of its labor market, have resulted in slower growth than foreseen by the market. Activity in Mexico has been more resilient than the market expected, beyond the lower performance in the margin due to seasonal factors. In Peru, GDP growth has tended to stabilize and shows some signs of recovery. This, after the weakening in the second half of last year, partly due to the El Niño phenomenon and paralyzed infrastructure projects. There is some improvement in activity data from Brazil, but from very negative figures and with still quite low growth rates.

Thus, our baseline scenario projects that our trading partners' activity will be slightly better than we thought in June and that terms of trade will be higher, all within a context of favorable financial conditions. Thus, the Chilean economy will receive a stronger impulse from abroad over the projection horizon (table 1).

As is the norm in the Report we publish every September, the baseline scenario includes our annual revision to trend and potential GDP estimates for the Chilean economy. These are summarized in the Report's box V.1. Also, this time around, we have attached to the Report a supplement describing a body of background information on the determinants of and perspectives for Chile's trend growth over the next 30 years. I will come back to the contents of this document in a few minutes.

Our estimates suggest that Chile's trend GDP growth over the next ten years is in the range of 3% to 3.5%, quite comparable to our estimates a year ago. This range implies, among other things, that investment again grows in line with GDP; that the productivity of sectors other than natural resources grows near its average of the last 20 years; and that immigration and increasing female participation partially offset the effects of the aging population on the labor force.

With regard to potential growth, at the shortest terms, investment and productivity show below-trend growth rates, so potential growth is lower than trend. Thus, potential GDP growth is now estimated to be around 2.5%, compared to the 2.5% to 3.0% we estimated in September 2016. With this, the current activity gap is somewhat narrower than previously estimated, even considering that the evolution of GDP has also been somewhat lower (figure 9). For the purposes of monetary policy, the evolution of the activity gap is still consistent with an economy needing an important monetary impulse throughout the

projection horizon. In addition, the Board continues to estimate the neutral interest rate to be between 1% and 1.5% in real terms.

In our baseline scenario, we continue to forecast that GDP will gradually regain higher expansion rates, backed by favorable external conditions, the end of the mining investment adjustment, no big macroeconomic mismatches and a clearly expansionary monetary policy stance. This scenario also assumes that fiscal policy will remain on its consolidation path, expressed in the immediate future in the upcoming budget aligned with the Administration's commitments. All this in a context in which potential growth steadily approaches trend-consistent levels.

Accordingly, our projections show no major changes compared to our June estimates. For this year, we foresee that the economy will grow between 1.25% and 1.75% (1% to 1.75% in June). For 2018, we continue to expect growth to pick up, to a range between 2.5% and 3.5%, identical to our June forecast. On the expenditure side, our growth forecast for private consumption is slightly adjusted upward in 2017, considering the rebound of the real wage bill observed so far, the recovery of confidence indicators, the necessary replenishment of durable goods inventories and an appreciation of the real exchange rate. In investment, the downward adjustment of projections for 2017 stems primarily from construction, including the mining, infrastructure and housing components. This latter one because of the high stock of new homes for sale that still persists. Thus, by 2017 a contraction of this component of gross fixed capital formation is expected, while the machinery and equipment component is slightly adjusted upwards, reflecting the actual data to date and also the steady growth in imports of capital goods excluding non-regular transportation.

Externally, exports are forecast to contract this year as a result of some supply-side shocks in manufacturing and mining downtime in the first half of the year, which has already been reflected in lower shipments from the sector. However, as these factors are estimated to be transitory, by 2018 these shipments should post a visible recovery. For the purposes of the trade balance, the aforementioned increase in the terms of trade, in particular the higher price of copper, translates into an increase in valued copper exports, which more than offsets the lower volumes of non-mining exports. However, in a context of higher copper prices and lower costs in the mining industry, rents paid abroad increase, so in 2017, the current account has a slightly bigger deficit than was forecast in June (table 2).

Inflation has been below expectations, standing at 1.7% annually in July. Although the evolution of core inflation was not very different from projections, the unusual drop in the fruits and vegetables component during these months has taken a little more than half a percentage point off annual inflation. Added to this is the significant appreciation of the peso since June, intensified in recent weeks. Thus, CPI inflation will end the year at 2.4% and the CPIPE at 1.9%, both below June's forecasts. Going forward, core inflation is expected to fluctuate around 2% until mid-2018, heavily influenced by the effects of the recent peso appreciation, to gradually return to 3% thereafter. Meanwhile, as fruits and vegetables prices resume a similar dynamic to that of their historical averages, the CPI will return to the target by the second half of 2018. As I mentioned, this trajectory is based on the RER depreciating slightly over the projection horizon (figure 10).

As usual, a number of internal and external elements represent risks to these projections.

Abroad, an ongoing concern is how the financial markets will respond to the monetary policy strategies of the main central banks of the developed world. After several years of highly expansionary monetary conditions, the economies have closed—or are on their way to close—their gaps and it is natural for monetary policy to begin to normalize, both in its more (rates) and less (balance sheet) conventional aspects. This entails risks because of the unprecedented timing and gradual pace of the process and its differences with market expectations.

In the United States, there's also the doubts about fiscal management and its effects on growth, interest rates, and asset prices in general. Add the concerns about whether the recent low inflation figures in several developed countries are one-time or rather systematic events, plus risks associated with recent geopolitical tensions. However, we cannot rule out that, given the good numbers of recent quarters, we see a faster recovery of developed economies.

In the emerging world, the main source of risks continues to be the Chinese economy. Despite good first-half results and policies implemented, doubts persist about imbalances in a number of Chinese markets. There is also the uncertainty surrounding the path that the reforms agenda will take once the Chinese Communist Party Congress concludes. In Latin America, the landscape has not changed much and political risks remain the main source of uncertainty.

The copper price surpassed US\$3 per pound at the statistical cutoff, but the baseline scenario assumes that it will stand near US\$2.75 during the next two years. Should the present price last, it would have positive effects on domestic activity and expenditure. At the same time, it could strengthen the peso and lower short-term inflation.

The implications for monetary policy of such a scenario are not straightforward. Although in the short term inflation is reduced, the greater dynamism of the economy could imply a somewhat faster closure of the activity gap in the projection horizon. This crossroads, in a way, reminds us of the sharp peso depreciation between 2013 and 2015. In those days, when the exchange rate accumulated an increase of around 45%, annual CPI inflation was above 4% for several quarters.

At that time, monetary policy did not react to this increase in inflation by raising the MPR, understanding that it would have a significant but transitory effect on prices. In fact, what the economy needed was a greater monetary boost that would help offset the negative effects of the end of the commodity super-cycle and the weakness the economy had shown in recent years. In this sense, although the recent appreciation of the peso is an important development and will undoubtedly affect the evolution of inflation in the short term, as reflected in the projections that I have just shown, its implications for monetary policy are not evident as long as its direct or indirect effects do not imply that the convergence of inflation to the target in the policy horizon is compromised.

About our domestic economy, the baseline scenario assumes that the factors that have reduced activity and inflation in recent months are transient. However, their persistence may be different than anticipated. On activity, a fraction of the lower growth responded to more persistent investment-related factors. This may be accentuated, for example, if confidence indicators regress. In any case, it cannot be ruled out that the economy may return to higher growth rates faster than assumed in the baseline scenario. This, considering that the labor market has not deteriorated any further, the cost of credit is low and expectations have improved somewhat, which could lead to more dynamic consumption.

Inflation has fallen beyond forecasts and is now below 2%. Expectations at shorter terms are down from the cutoff date for the last Report, but at longer terms they show no major changes and remain anchored to the target. However, various factors may result in a sharper or longer-lasting drop, which could affect price formation over longer terms and inflation expectations.

In this context, the Board estimates that the risk balance is unbiased for activity, and for inflation it is biased downward in the short term, but unbiased in the medium term.

As a working assumption, our baseline scenario estimates a similar monetary impulse as in June, i.e., the MPR remaining fairly stable and beginning to move up towards neutral only after the economy starts closing the activity gap. Thus, monetary policy will remain expansionary through the entire projection horizon. As always, we will be watchful for any deviations from the baseline scenario that warrant moving the MPR. As I just said, in the short run inflationary risks are biased downwards. If it happens, it may affect convergence to the target, in which case monetary policy will need to be even more expansionary.

### **New institutional developments and contributions**

Dear senators, I am submitting to you this, my first annual account as Governor of the Central Bank. I head an institution that has more than a quarter of a century of autonomous history and that, over this time, has built and consolidated a technical reputation that has allowed for the correct performance of its functions, transforming it into an institutional reference in the public apparatus and in the group of central banks of emerging countries. This has occurred to a large extent thanks to our important contribution to the country's macroeconomic stability.

Traveling this road has not been easy. At the outset, the mere idea of granting autonomy to the Bank cast a heavy blanket of doubt, not only because of the novelty of the scheme, but because it was difficult to dissociate its potential benefits in the fight against inflation from the political circumstances of its origin. However, the Bank's actions and its first monetary policy decisions made it possible to enhance the legitimacy of the Bank. This behavior has been extended and deepened over time, largely on the initiative of successive Central Bank boards. The adjustments to the monetary policy framework, increased attention to issues of financial stability, efforts to improve the market



orientation of its policy decisions and the adoption, by its own initiative, of higher standards of transparency and accountability are expressions of this.

Thus, the capital invested by the Bank in seriousness and commitment to the inflation target and financial stability has contributed enormously to provide spaces of independence to its monetary policy making. At the same time, the institutional autonomy of the Bank has not hindered dialogue and coordination with the Executive, through the Minister of Finance. Nor has this autonomy been translated into greater rigidity, but has provided an institutional arena within which it has been able to adapt, in a timely and flexible way, to new challenges, safeguarding the necessary independence to carry out its work.

The biggest challenge for an autonomous institution is to not stay behind the new demands of its environment, acting with timeliness and effectiveness to meet its institutional objectives in new circumstances, gaining the trust of the public. This confidence is far from being a sure asset. In today's ever-changing world, where confidence can be lost in a wink, we must work day after day to preserve it, especially considering the challenges that we face, both economically and socially.

In this context of greater transparency, better communication and contribution to the people's needs, I want to mention two elements that accompany this Report: a report on the determinants of the trend growth of the Chilean economy and a set of modifications to the monetary policy decision-making process.

### **Determinants of the Chilean economy's trend growth**

As I said a while ago, alongside this Report we have published a document summarizing a body of research that our technical teams have made on the determinants of long-term economic growth. Although these investigations date back many years, they have tended to remain at an academic level. However, because in recent years our economy has slowed down quite significantly, it seemed to us on the Board that it would be appropriate to make an additional effort to consolidate our analysis, in an area that is not only key to adequately achieving the objectives mandated by the law, but also of general interest for the country.

The document I am presenting today is the result of six months of review, updating and consolidation work of many studies carried out at the Central Bank, combined with incoming new empirical evidence that enrich our knowledge of the Chilean economy. It provides an in depth analysis of the medium-term trend growth of Chile in the horizon spanning from the years 2017 to 2050, with a special focus on the GDP growth projection for the next ten years.

This document projects the evolution of the productive factors (labor and capital) and total factor productivity (TFP) for sectors other than natural resources, while for the latter, the projection of its expected evolution is updated in the light of diverse sectoral background. It includes both the study of the history of the variables and a cross-country comparison, which allows us to look at the Chilean experience in the context of other

countries that experienced our current levels of development before us, showing us what we can expect in the future. It also stresses the major importance of productivity, both in explaining current differences in income levels with the developed world, and in projecting future growth. Therefore, special care is given to analyzing the evolution of TFP, providing new evidence on the importance of generating the proper conditions for an efficient allocation of resources.

Primarily, we estimate that a range around 3% to 3.5% is reasonable to place trend GDP growth for the ten years ahead of us. This range for trend growth inputs the assumptions that natural resources sectors will grow around 2% on average, and the other sectors will grow near 3.4%.

About this, estimates indicate that the increase in labor, understood in a broad sense, will contribute about 0.8% to growth in other sectors' GDP. Behind this estimate is the fact that improvements in human capital, the incorporation of women to the labor force and immigration will help compensate for the negative effect of the aging of the Chilean population and the tendency towards reducing the number of hours effectively worked that comes with development (figure 11).

The projection assumes a relatively neutral role for capital, in the sense that it expands at the same rate as Other GDP. This assumption is consistent with the capital / product ratio remaining at levels close to its historical average, a stylized fact that is also present in other countries. For this, however, it is necessary for the investment rate to return to values consistent with potential growth.

Finally, our projection assumes that the total factor productivity of other GDP will resume growth around its average of the last twenty years, an important but clearly possible challenge. Recovering the trend growth of productivity in sectors other than natural resources will be especially important, given the downward trend of natural resources, associated mainly with the fall in mineral ore. Indeed, the data show that, beyond the difficulty of calculating productivity by sector, the negative effect of the decline of mining ore has taken its toll on this industry (figure 12).

The evidence from Chile suggests that there are important inefficiencies in resource allocation across firms and that there would be first order gains from measures aimed at improving them, which, unlike the case of human capital, could generate gains sooner.

To back this last analysis, the document provides some international comparisons on productivity, microeconomic evidence on how the productivity of firms evolves, and its degree of dispersion. In particular, from a comparative perspective, although Chile's productivity appears to be aligned with its GDP per capita, it is about 60% that of the United States and less than that of the richer OECD countries, which implies that there is great room for improvement (figure 13).

In Chile, as in many other economies, there appear to be significant gains from fostering a better allocation of productive resources, helping the more efficient firms to grow and the less efficient to shrink and eventually exit the market. As can be seen in table 3,

resource reallocation is an important source of TFP growth. For this, it is essential to have flexible labor markets that allow adjusting the endowment of companies when necessary, developing the financial system to direct resources to where the good ideas are and implement rules that facilitate the creation and dissolution of companies.

These figures are similar to those presented in previous years, reflecting that the Board has not changed its view on the medium-term productive capacity of the Chilean economy. However, we cannot ignore the fact that, because in recent years the growth rates of investment and productivity have been below their trend levels, short-term productive capacity has suffered. Actually, the Board estimates that the potential growth of the economy is now around 2.5%, a little short of previous estimates.

### **Adjustments to the monetary policy making process**

Another area where we are making progress is in the transparency and communication of our monetary policy decisions. The Bank conducts its monetary policy in an inflation targeting framework, which, to function correctly needs to properly communicate its actions and the reasons behind them, as well as a good diagnosis of the evolution of the economy, locally and internationally. The adoption of these decisions and their communication are structured around the Monetary Policy Meetings and the Monetary Policy Report, whose organization, priority, content and dissemination are currently based on procedures and standards that were mostly established in the first half of the 2000s.

After a thorough internal assessment based on accumulated experience and international best practices, the Bank Board has decided to make some modifications to its monetary policy decision-making and communication process.

Essentially, the number of Monetary Policy Meetings (MPM) is reduced from twelve to eight per year, to align them with the most common practice among the central banks of low-inflation countries (figure 14). In this new scheme, meetings will be held roughly every six to eight weeks, in January, March, May, June, August, September, October and December of each year. In addition, the meeting will be extended from one day to one day and a half, starting the afternoon before the day of the policy decision announcement, thus giving the Board more time to discuss the background information and analyze the monetary policy options.

This will give more time to gather information between meetings and to evaluate the impact of the different economic indicators on the baseline scenario, allowing for a more robust analysis of the recent evolution of the economy.

The communication and the minutes of the Meetings is also being changed, in the sense of backing the decision having more information at hand than we currently do. Thus, the press release will be extended to include the main antecedents of the recent behavior of the economy, the grounds on which the Board based the decision and the voting. The minutes, meanwhile, following a usual practice in inflation-targeting central banks, will

provide additional information on the Board's discussion, which may be useful for the public to better understand its decisions and future implications.

In addition, we have decided to publish the transcripts of the Monetary Policy Meetings with a ten-year lag. They contain information of the topics analyzed and opinions expressed by the participants, identifying who opined what. Disclosing them fulfills several objectives. On the one hand, it further strengthens the accountability of the decision-makers and increases transparency for the public. On the other, it will also contribute to the study of the country's economic history and a better understanding of the decisions made from a historical perspective. The publication of this material will be made in March of each year. The measure will have retroactive effect, so that the publication of March 2018 will cover the meetings of the years 2000 to 2007.

Finally, we will also make changes to the publication periods of both our Monetary Policy Report and our Financial Stability Report. The Monetary Policy Report, which will keep its quarterly frequency, will be released first thing in the morning after the meetings of March, June, September and December, and will be complemented by a press conference of the CBC Governor at the Bank's premises. By publishing this Report the day after the Meeting, the Board will have the chance to reinforce the communication of the grounds that justify the policy decisions. In general, the vast majority of central banks publish their Reports or similar documents on the same day that monetary policy decisions are announced. The Monetary Policy Report will continue to be submitted to the Senate immediately after its publication, in dates that will be agreed upon with the respective instances. The Financial Stability Report, for its part, will continue to be published twice a year, but will now be made separately from the Monetary Policy Report, in May and November (table 4).

The two Reports will now more actively integrate the outcome of the economic and financial research work carried out by the Bank in matters of particular relevance to the institution's policy decisions. A first step in this direction is the document on trend growth attached to the present MP Report.

All the changes I have described will become effective in January 2018. In addition, in September of each year we will publish the calendar with the dates of the Monetary Policy Meetings and the publication of the Reports of the next calendar year. For 2018, this calendar will be published next Thursday, September 14<sup>th</sup>.

All these changes are part of the Bank's strategic plan and are intended to strengthen the current monetary policy framework, in order to reinforce compliance with the objective of price stability. Moreover, these measures are the product of a thorough internal evaluation and reflect both the Bank's accumulated experience and the best practices established at the international level.

## **Concluding remarks**

With this presentation I hope to have shown how the Central Bank of Chile continues to fulfill the responsibilities assigned to it by the law, while progressing in its adaptation to new challenges and the need to maintain and enrich the trust of the citizens.

The Bank has no agenda other than the functions and tasks entrusted, but these are enough to motivate a continuous effort of improvement that today takes special relevance. As I mentioned in my first presentation to the Finance Committee last December, this year we are carrying out a strategic planning exercise that will allow us to establish a framework for our institution's development over the next five years. To prepare this exercise, we did widespread consultations, which included, among other things, close to a hundred interviews with corporate counterparties. I would like to thank the senators who answered our questions.

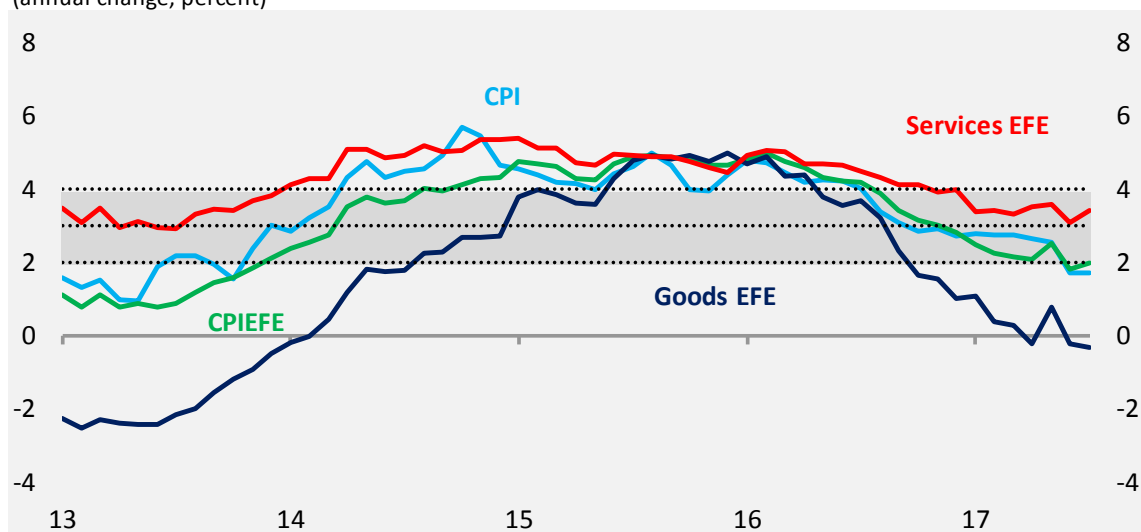
A series of initiatives will come out from the strategic planning process that will help the Bank to strengthen and keep abreast of the new challenges facing our economy and our citizens in the coming years. The adjustments to the monetary policy process I have presented offer a peek into the Bank's Strategic Plan for 2018-2022, but I hope to be able to make a more complete presentation of it when I present our next MP Report to the Finance Committee in December.

While the Chilean Central Bank strictly complies with its entrusted responsibilities, it also works to take on the challenges of tomorrow. For us, institutional autonomy represents a basis from which we can mobilize our resources to meet increasingly high standards of efficiency, efficacy and transparency. Just as many of today's practices have emerged from past Board agreements, we are working today to set the new standards against which we want to be evaluated in the future. Institutional autonomy should be seen as a factor that, rather than isolating the Bank from the rest of the country, makes it particularly responsible for being proactive in responding to its needs. What is important is for the Bank's response to the new challenges to be timely, well planned and effective, drawing on feedback, coordination and cooperation with other players.

In this process the Senate plays a key role. It is through this Honorable House that we account for our management. Dialogue with the Senate is essential as feedback of our work and as a source of new challenges. The ongoing changes will add new opportunities to strengthen this link. In particular, the adjustments to the monetary policy process will transform the current presentation of the MP Report to the Finance Committee or to this plenary in a session where the senators will have more time to formulate their questions and comments. We expect, likewise, to develop mechanisms for a more comprehensive account of our management, covering all the issues under the responsibility of the Bank.

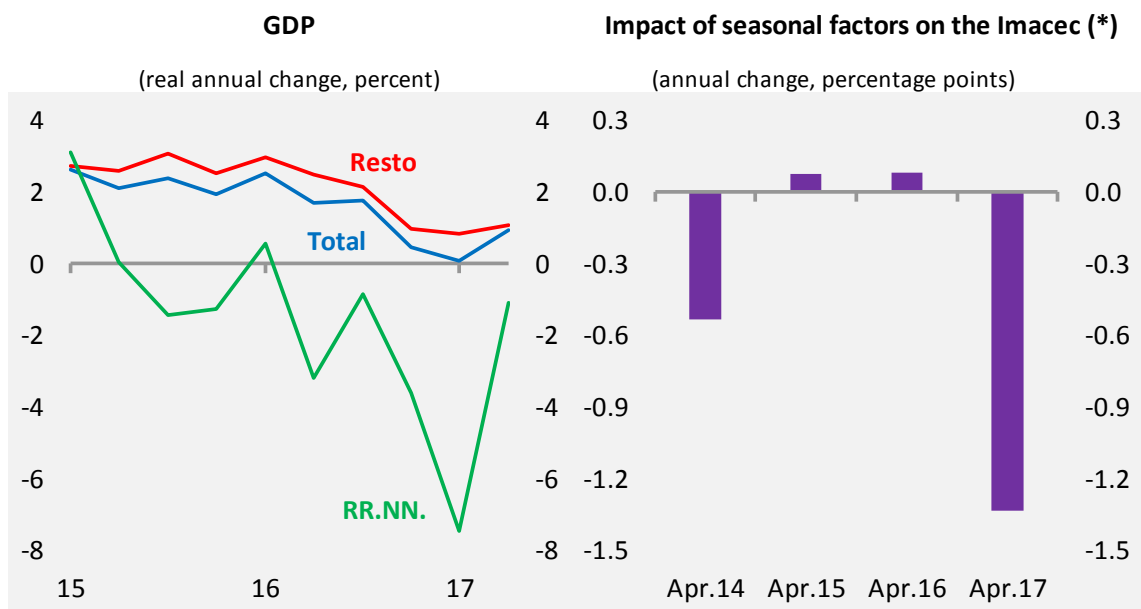
My sincere thanks for your attention and I am available for any inquiries that the honorable senators may wish to make.

Figure 1  
**Inflation indicators (\*)**  
 (annual change, percent)



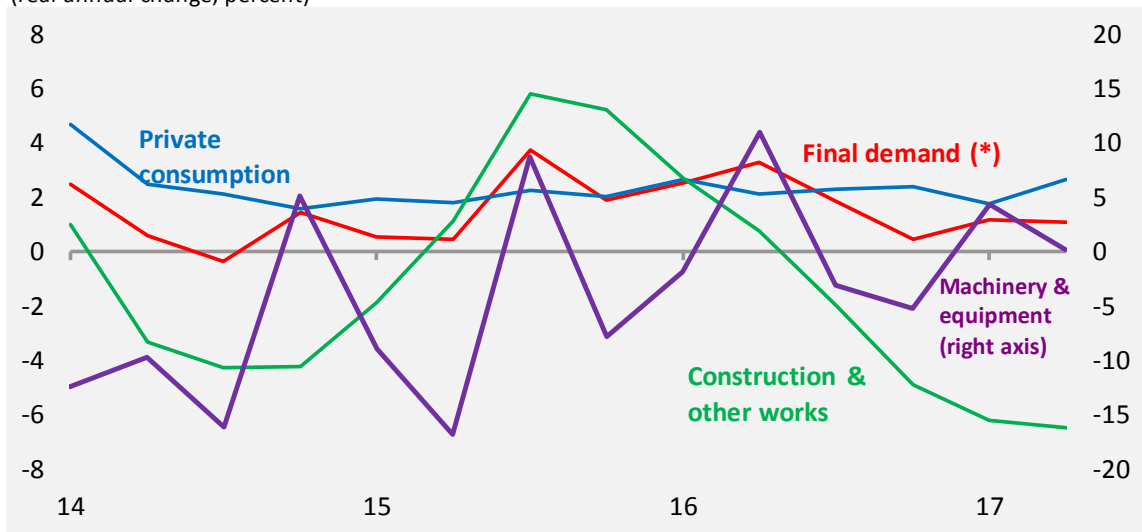
(\*) As from January 2014, the new indexes with base year 2013=100 are used, so they are not strictly comparable with earlier figures. EFE: excluding foods and energy.  
 Sources: Central Bank of Chile and National Statistics Institute (INE).

Figure 2



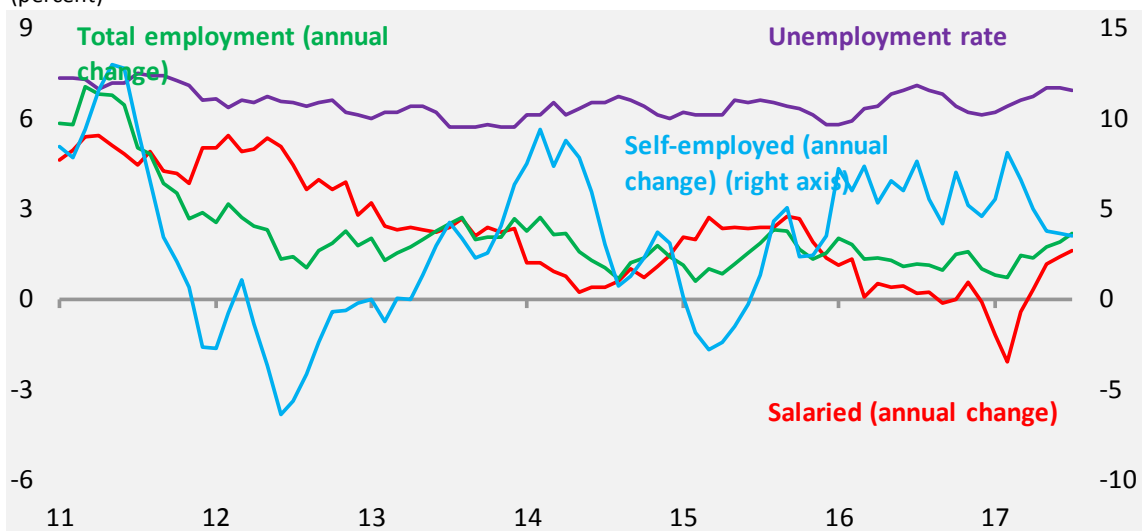
(\*) Difference between annual variations of the original and the seasonally-adjusted non-mining Imacec.  
 Source: Central Bank of Chile.

**Figure 3**  
**Domestic demand and components**  
 (real annual change, percent)



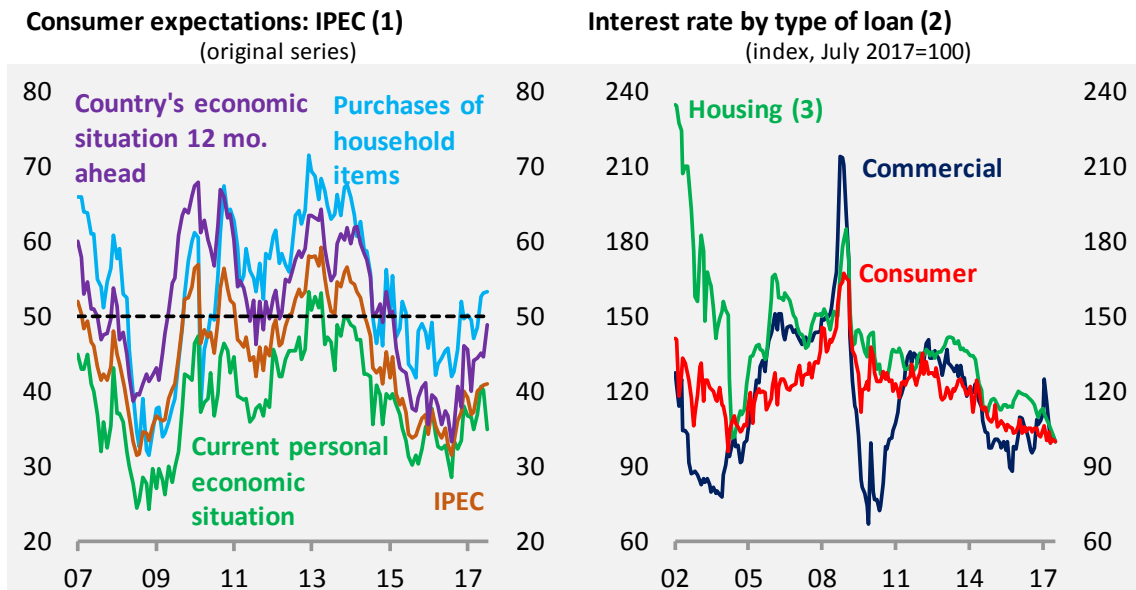
(\*) Without inventory change.  
 Source: Central Bank of Chile.

**Figure 4**  
**Labor market**  
 (percent)



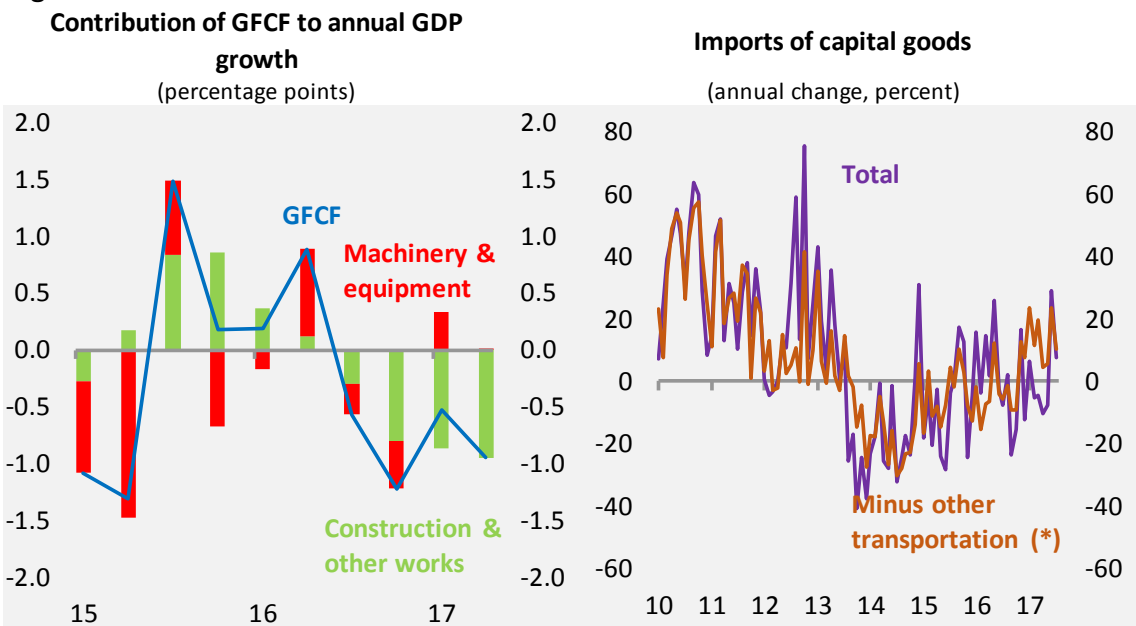
Source: National Statistics Institute (INE).

Figure 5



(1) Value above (below) 50 indicates optimism (pessimism). (2) Weighted averaged rates of all operations performed in each month. (3) Loans denominated in UFs.  
Sources: Adimark and Central Bank of Chile using SBIF information.

Figure 6



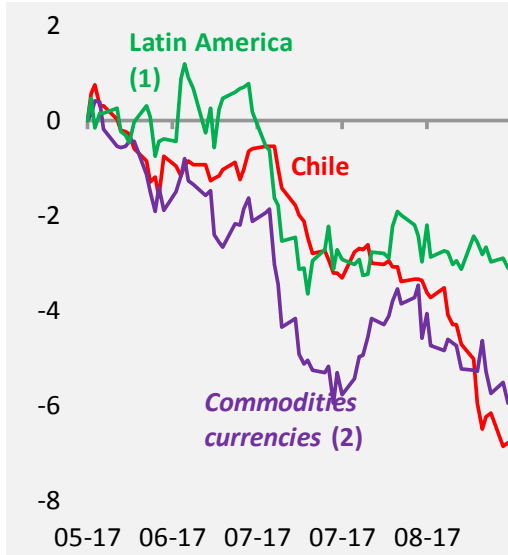
(\*) Excludes non-regular transportation vehicles (airplanes, ships, helicopters and trains).  
Source: Central Bank of Chile.



Figure 7

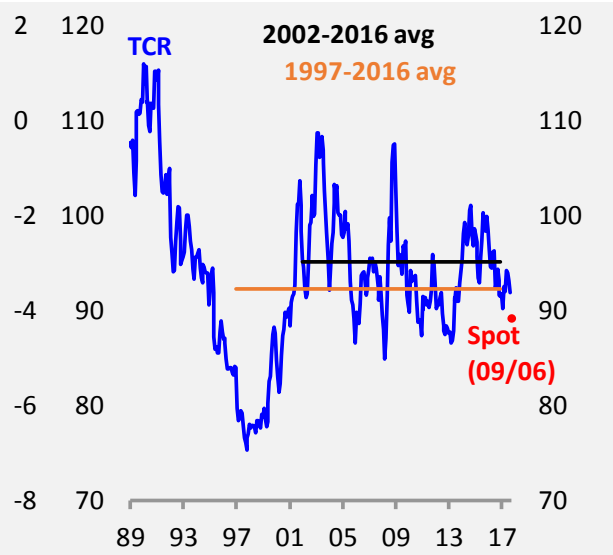
**Parities with the US dollar**

(change accumulated since 29 May 2017, percentage points)



**Real exchange rate (3)**

(índice 1986=100)

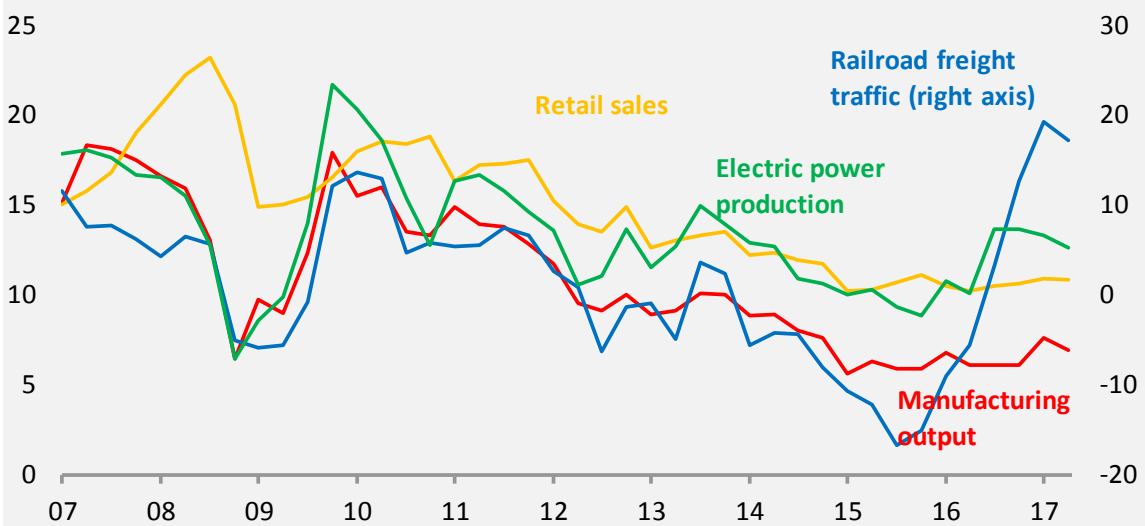


(1) Includes Brazil, Colombia, Mexico and Peru. (2) Includes Australia, Canada, New Zealand and South Africa. (3) Preliminary estimates for August 2017. Sources: Central Bank of Chile and Bloomberg.

Figure 8

**China: Indicators by sector (\*)**

(annual change, percent)



(\*) Quarterly series. Source: Bloomberg.

Table 1

## International scenario

	2016	2017 (f)		2018 (f)		2019 (f)	
		Jun.17 Report	Sep.17 Report	Jun.17 Report	Sep.17 Report	Sep.17 Report	
		(annual change, percent)					
Terms of trade	1.9	4.7	8.5	-0.5	0.0	-1.8	
Trading partners' GDP	2.9	3.3	3.5	3.4	3.5	3.4	
World GDP at PPP	3.1	3.4	3.6	3.5	3.6	3.6	
World GDP at market exchange rates	2.5	2.8	2.9	2.9	3.0	2.9	
United States	1.5	2.2	2.1	2.3	2.3	2.2	
China	6.7	6.5	6.7	6.3	6.4	6.1	
Eurozone	1.8	1.7	1.9	1.7	1.7	1.7	
Latin America (excl. Chile)	-1.5	1.1	1.1	2.2	2.1	2.4	
External prices (in US\$)	-2.7	2.4	3.2	1.4	1.6	2.3	
		(levels)					
LME copper price (US\$/cent/lb)	221	255	275	250	275	270	
WTI oil price (US\$/barrel)	43	50	49	51	49	49	
Brent oil price (US\$/barrel)	44	53	52	53	52	52	
Gasoline parity price (US\$/m3)	389	453	450	447	440	435	
Libor US\$ (nominal, 90 days)	0.7	1.5	1.4	2.5	2.3	3.0	

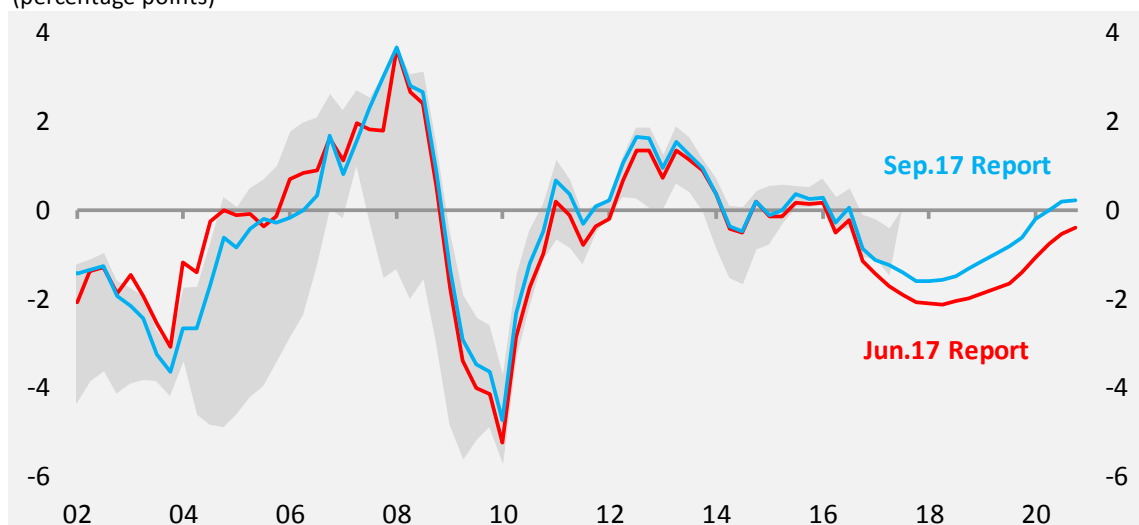
(f) Forecast.

Source: Central Bank of Chile.

Figure 9

## Activity gap (\*)

(percentage points)



(\*) Gray area shows lowest and highest gap estimates using different estimation methods for potential GDP (HP, SVAR, MEP, FMV, trivariate filter and SSA). See Fornero and Zúñiga (2017).

Source: Central Bank of Chile.

Table 2

**Domestic scenario**

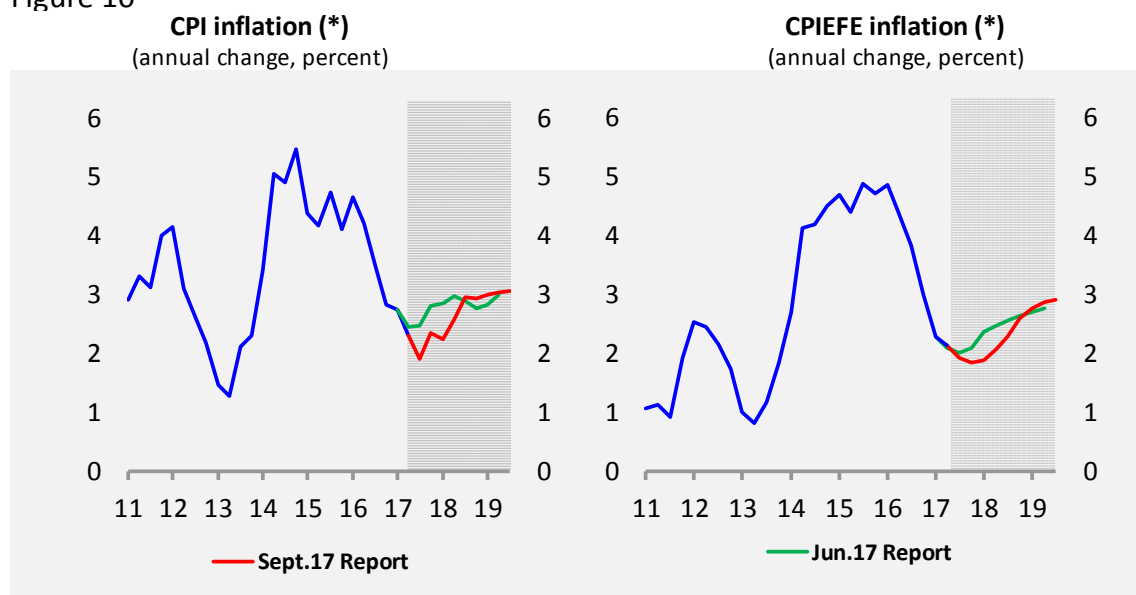
(annual change, percent)

	2016	2017 (f)		2018 (f)	
	Sep.17 Report	Jun.17 Report	Sept.17 Report	Jun.17 Report	Sept.17 Report
GDP	1.6	1.0-1.75	1.25-1.75	2.5-3.5	2.5-3.5
Domestic demand	1.1	2.5	2.6	3.9	3.9
Domestic demand (w/o inventory change)	2.0	1.8	1.7	2.9	2.9
Gross fixed capital formation	-0.8	-0.9	-1.6	3.0	3.2
Total consumption	2.8	2.6	2.7	2.9	2.8
Goods and services exports	-0.1	0.7	0.1	3.9	4.5
Goods and services imports	-1.6	4.3	4.6	6.6	7.4
Current account (% of GDP)	-1.4	-1.0	-1.2	-1.9	-1.8
Gross national saving (% of GDP)	20.2	20.2	19.8	20.3	20.2
Nominal gross fixed capital formation (% of GDP)	23.2	22.1	21.7	22.2	21.8

(f) Forecast.

Source: Central Bank of Chile.

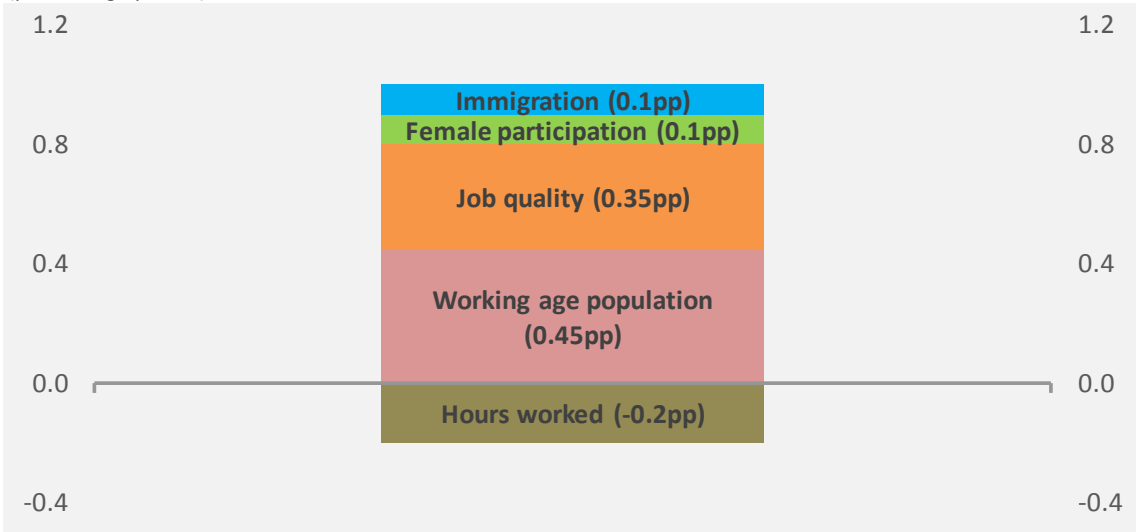
Figure 10



(\*) Gray area shows forecast as from the third quarter of 2017.

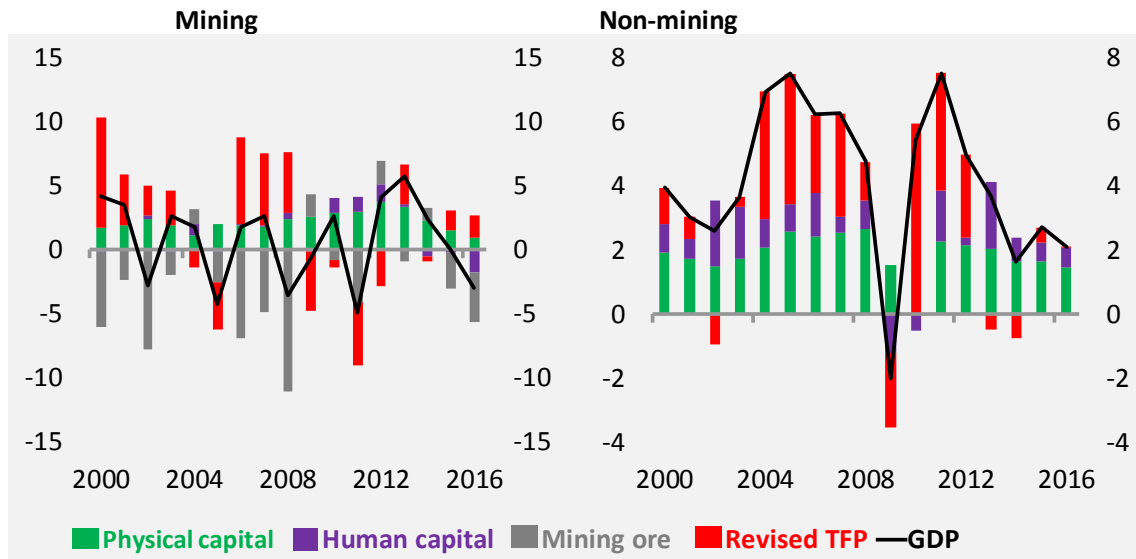
Sources: Central Bank of Chile and National Statistics Institute (INE).

**Figure 11**  
**Labor contribution to trend GDP growth in 2017-2026**  
 (percentage points)



Source: Central Bank of Chile.

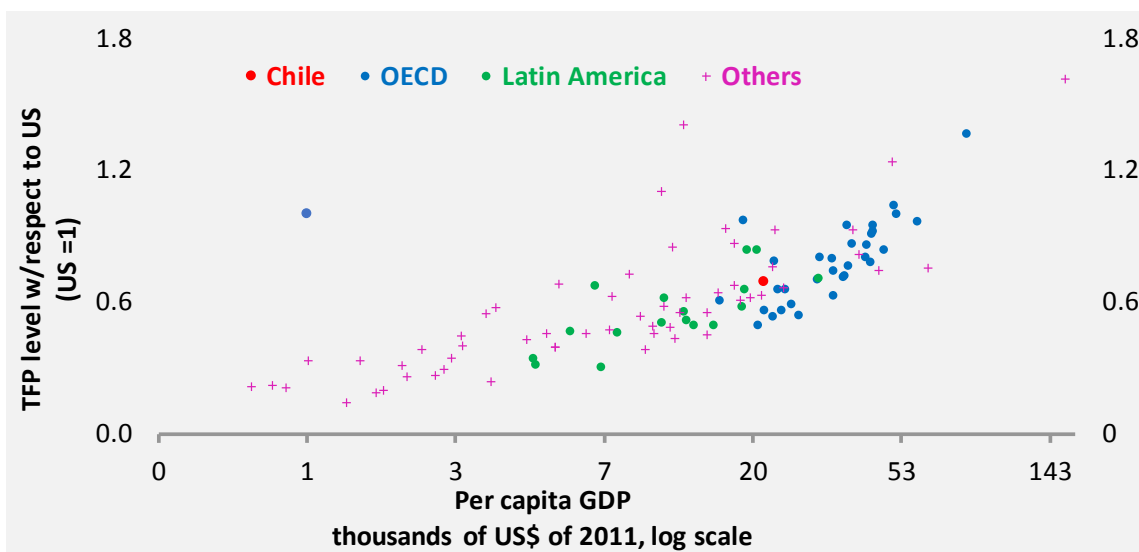
**Figure 12**  
**Growth breakdown in Chile**  
 (percentage points)



Source: De la Huerta and Luttini (2017).

Figure 13

Total factor productivity (TFP) and per capita GDP, 2012-2014 average (\*)



(\*) Countries with population over one million and average PTF no higher than twice that of the United States. Blue dots show OECD member countries as of 2017 (Mexico included).

Source: Central Bank of Chile using PWT 9.0 data.

Table 3

Productivity growth breakdown: 2006 - 2015 (\*)

(percent)

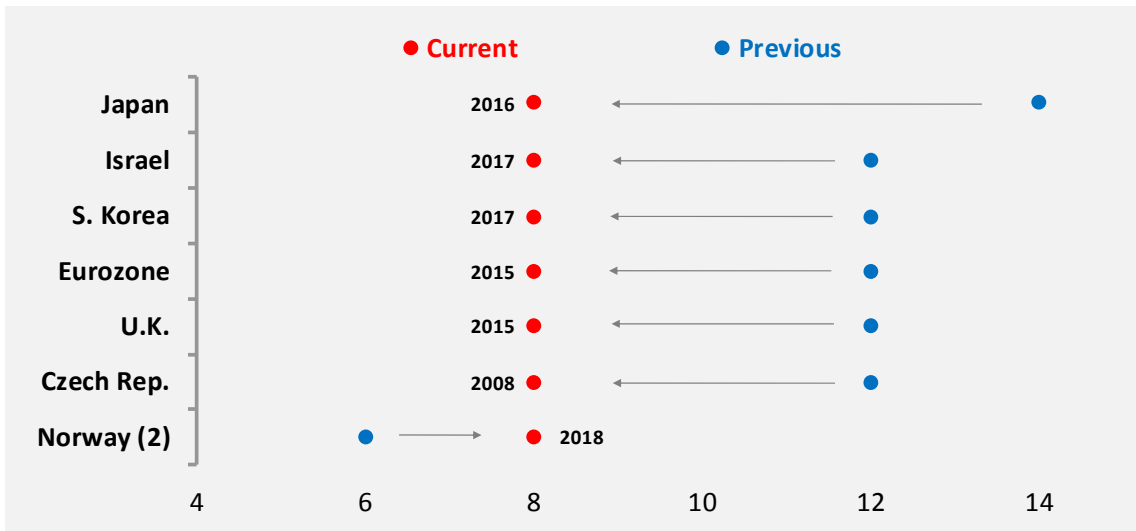
<b>Productivity growth</b>	<b>0.97</b>
Productivity growth of firms continuing	1.23
Reallocation across firms continuing	1.03
Net turnover margin	-1.30

(\*) Annual average of productivity growth breakdown between 2006 and 2015. Values scaled by average productivity. Parameters estimated using the Levinsohn and Petrin (2003) methodology calculated on 91 sectors.

Source: Central Bank of Chile using data from Internal Revenue Service (SII), F22 and DJ1887.

Figure 14

Recent changes to MP meetings' frequency (1)



(1) Left of red dots is year in which the number of monetary policy meetings was reduced.

(2) The Norges Bank announced in May 2017 that it will increase the frequency of its meetings from six to eight per year beginning in 2018.

Source: Central Bank of Chile based on information from the respective central banks.

Table 4  
Adjustments to monetary policy process

	Current		New
<b>Official MPM* communication</b> (end of each MPM)	Brief summary of economic scenario Monetary policy decision	<b>Official MPM communication</b> (end of each MPM)	Main economic background developments Monetary policy decision and explanation Voting outcome
<b>Background minutes</b> (1 day before MPM)	Review of evolution of local and world economy based on public information known since previous MPM	<b>MPM minutes</b> (11 bank working days later)	Main charts presented by the staff to the Board at MPM Review of evolution of local and world economy based on public information known since previous MPM Options examined by the Board Arguments for and against monetary policy options considered
<b>MPM charts</b> (1 day after MPM)	Main charts presented by the staff to the Board at MPM		
<b>MPM minutes</b> (11 bank working days later)	Voting outcome Options presented by Research Division Summary of discussion		
<b>MPM transcript</b> (reserved)	Detail of opinions of each Board member and the Finance Minister	<b>MPM transcript</b> (10 years later)	Detail of opinions of each Board member and the Finance Minister

\*MPM = monetary policy meeting.  
Source: Central Bank of Chile.