Constructing a Transparency Index for the Central Bank of Chile

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Abstract

This note computes a transparency index (CBT-IT index) for the Central Bank of Chile (CBOC), which is more comprehensive and relevant than traditional measures. The new measures are based on a methodology created by Al-Mashat *et al.* (2018) and are specifically designed to assess the transparency of inflation-targeting central banks like Chile. The CBT-IT index include measures of transparency about: monetary policy objectives; the monetary policymaking process; and the Forecasting and Policy Analysis System (FPAS) that is used in inflation-forecast-targeting central banks to support forward-looking monetary policies. The measures show clearly that the CBOC has made significant progress improving transparency over the last few years.

Resumen

Esta nota calcula un índice de transparencia (índice CBT-IT) para el Banco Central de Chile (CBOC), que es más completo y relevante que los tradicionales. Las nuevas medidas se basan en una metodología propuesta por Al-Mashat et al. (2018) y están diseñados específicamente para evaluar la transparencia de bancos centrales con metas de inflación como Chile. El índice CBT-IT incluye medidas de transparencia sobre: objetivos de política monetaria; el proceso de formulación de la política monetaria; y el Sistema de Análisis de Políticas y Proyecciones (FPAS) que se utiliza en los bancos centrales con metas (basadas en proyecciones) de inflación para respaldar las políticas monetarias que miran hacia adelante. Las medidas muestran claramente que el CBOC ha logrado avances significativos en la mejora de la transparencia en los últimos años.

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1. Introduction

Transparency and accountability are fundamental for effective monetary policy. Since the inception of inflation-targeting regimes, central banks have devoted considerable resources and effort to improve monetary policy transparency and communications.[2] The recent papers by Al-Mashat *et al.* (2018) and Haworth, Kostanyan and Laxton (2020) develop a new framework for an improved transparency index and apply it to the Czech National Bank and the Reserve Bank of New Zealand. This CB-IT complements other transparency indices found in the literature, see e.g., Dincer and Eichengreen (2014). The aim of the CBT-IT index is to establish transparency benchmarks reflecting best practices. Accountability based on this index helps to provide incentives for central banks to improve transparency over time and keep up with best practices.

Clinton *et al.* (2015) and Adrian, Laxton and Obstfeld (2018) discuss the important principles of transparency in IFT regimes and argue that transparency helps to anchor long-term inflation expectations because it improves the efficacy of the monetary policy transmission mechanism. In countries with transparent central banks, real interest rates of different maturities adjust more rapidly to achieve the central bank's inflation objectives. In addition, endogenous adjustment of the exchange rate and financial asset prices then become important shock absorbers that help to prevent the economy from falling into either high or low inflation traps. Hence, transparency makes the transmission mechanism more effective. The success of an IT regime hinges on policy credibility and, specifically, if long-term inflation expectations are anchored to the target.

Documenting the trends in improvements in transparency can be done in different ways. Al-Mashat *et al.* (2018) propose a granular analysis based on what central banks do. The constructed index allows a direct comparison across countries.[3] The objective of this note is to construct a transparency index for the CBOC.

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[2] For an early survey on transparency, see Geraats (2002).

[3] For example, increasingly central banks have implemented the good practice of sharing assumptions, data, replication codes along with methodological papers that help people to replicate the analysis and projections conducted at central banks and are necessary to achieve high marks for transparency about the forecasting and policy analysis system (FPAS).

The rest of the note is structured as follows. Section 2 describes the data and briefly presents the methodology for constructing the index. Section 3 provides the calculation of the transparency index and Section 4 concludes.

2. Data and methodology

CBT-IT considers 20 questions in three categories, namely: Transparency about Objectives (4 questions); Transparency about the FPAS (9 questions); and Transparency about the Policy Process (7 questions).

The set of information that we use is much larger than the official law, and typical documents used, e.g. monetary policy acts, minutes and statements issued by the central bank. It includes staff's publications, books, and thematic institutional studies such as the monetary policy revision process, etc. Specifically, most of the information used in this paper is obtained from the CBOC's website www.bcentral.cl. Collecting all relevant information allows us to answer questions with a numerical score that ranges between 0 and 1. Finally, the index is then constructed by adding up the scores for each question, where 20 is the maximum score attainable. The frequency of revision of the index is annual.

See Appendix II in Al-Mashat *et al.* (2018) and www.thebetterpolicyproject.org for the full list of the transparency questions and the scores earned by the Czech National Bank.

To provide an illustration on the index's construction, we reproduce the first question from each category, and we propose a suitable score for the case of Chile along with an explanation. Detailed explanations regarding the motivation and context to provide the correct scoring for the questions is described in section III of Al-Mashat *et al.* (2018).

Category A: Transparency about **Objectives** (Questions A1-A4). *Example*:

> *A1: Is there a formal statement of the objectives of monetary policy emphasizing the dual mandate (or multiple objectives), and that inflation is the primary objective? Is it easily accessible on the central bank's website?*
>
> *CBoC scores 1/1 since 2000.* Publication of the Monetary Policy framework, updated in 2007 and in 2020.

Category B: Transparency about the **Forecasting and Policy Analysis System -FPAS** (Questions B1-B9). *Example*:

> *B1. Are the basic economic data relevant for the conduct of monetary policy publicly available in a downloadable format from the central bank's website (could also include links to other statistical agencies)? For example, data reported in the monetary policy reports should be made available on the website.[4]*

CBoC scores 1/1 since March 2018. Stored on the homepage.

Category C: Transparency about **Policy Process** (Questions C1-C7). *Example*:

> *C1. Does the central bank publish a press statement immediately following the policy decisions?*

CBoC scores 1/1 because it publishes a press statement immediately after each policy decision in English. They are stored on the CBOC's website.

3. Results

This section presents the CBT-IT index for Chile. Figure 1 illustrates its evolution in terms of the highest attainable score, which is 20 (i.e., 50% in the figure stands for an absolute score of 10). The time span starts in 1999 and ends in 2020. In Chile, the inflation-targeting regime starts in1999 (Roger, 2010) after inflation stabilized around a target of 3%. Regarding the history, Chile experienced high inflation in the XXth century, which started to decline steadily to reach single-digit levels in the 1990s (De Gregorio, 2005, CBOC, 2020).[5]

The CB-IT index for Chile improves substantially in recent years, reflecting a commitment to improve transparency over time. In Figure 1, the "Bars" represent contributions of each

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[4] An annotation directs the researcher to the perfect score equal to 1: all series used in producing the monetary policy reports are published in a downloadable format, such as an Excel spreadsheet. Should include: the output gap, inflation, inflation expectations, wages, unemployment, and GDP.

[5] According to CBOC (2020), Chile experienced high and persistent inflation for many years in the XXth century. This was mainly due to the subordination of the monetary policy objective to fiscal dominance, consistent with financing government deficits. In the 2000s inflation went down close to the target and remained stable on average and with inflation expectations remaining fairly well anchored to the target. The micro-level evidence indicates important rigidities in the adjustment of prices, which supports the use of a short-run Phillips Curve for analysis and projection of inflation.

dimension of transparency: in objectives (red), characteristics of the policy projection and analysis system (yellow), and the decision-making process (green).

Figure 1: CB index of transparency: details

(In percent of index's perfect score, 20)
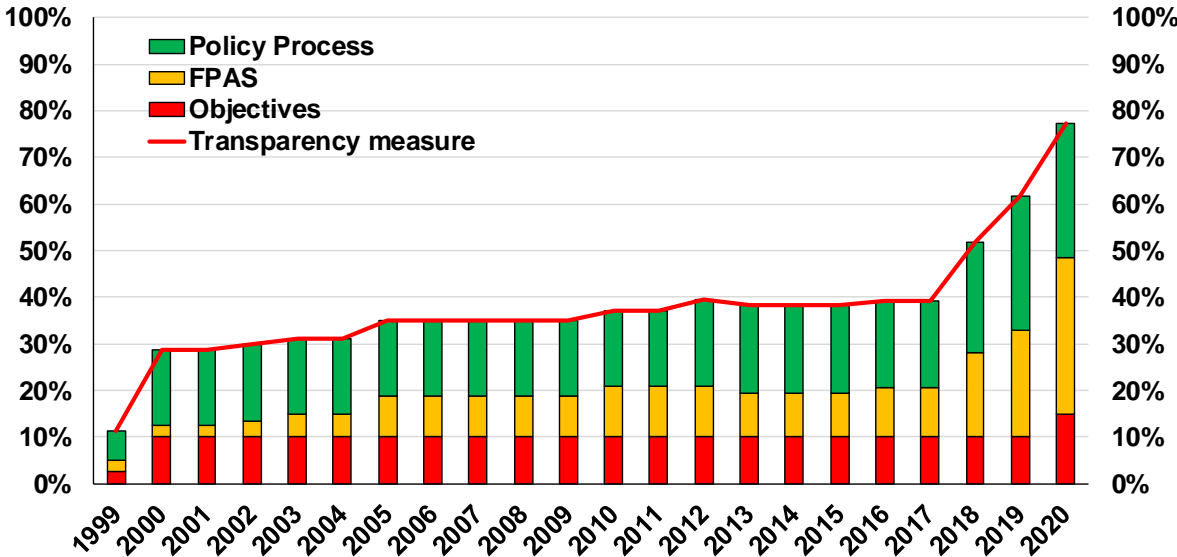
Source: Al-Mashat et al. (2018), own calculations for Chile. An Excel file that accompanies this note provides more details to reproduce restuls.

The first significant increase in transparency that jumps out in Figure 1 was in 2000 when the CBOC started to publish Monetary Policy Reports (MPR). Since May 2000, the CBOC has been publishing MPRs, initially three-times a year in January, May, and September and since 2009 on a quarterly basis. The MPR is published in Spanish and in English. Also, it is usually presented by the CBOC Board to the Senate, market participants and policy analysts. All inflation-targeting industrialized countries and a few emerging-market countries have some form of parliamentary hearing to provide accountability of policy actions taken (Hammond, 2012). This is an important aspect of the inflation-targeting framework.

The objectives of the MPR are: (i) to provide information to the Senate; the Government and the general public on the views of the CBOC's Board regarding the recent and expected evolution of inflation and its consequences for the direction of monetary policy; (ii) present

assumptions that the Board is using for the formulation of monetary policy; and (iii) provide useful information for the formation of expectations of economic agents concerning the future trajectory of inflation and economic activity. The structure of the MPR is consistent with these objectives and includes an overview of key international variables relevant for the Chilean economy.

Since September 2001, the main instrument of monetary policy has been the nominal policy rate. Next, the publication of the macroeconomic models used for imposing consistency in the projections, such as the publication in 2003 of the "Modelo Estructural de Proyecciones," known as the MEP projection model. Efforts to improve and develop new methodologies continued, for instance, with the development of a new DSGE model "Modelo de Análisis y Simulaciones," known as MAS. The development of MAS started in 2004 and the first version of it was first published in 2005. The forecasting process is based on a blend of forecasts from MAS and MEP, and formally, the projections have been presented as averages of the two models since 2009.

Between 2018 and 2020 there were major improvements in transparency in all areas:

- There have been improvements in the policy decision-making process starting in 2018 (Naudon and Perez, 2017). The new regime reduced the frequency of Monetary Policy Meetings from 12 to 8 per year, with four of them coinciding with the release of the MPRs.
- The CBOC sought external advice and technical evaluation of core methodologies that were in use for producing the main projections. Also, accuracy of projections was compared with other benchmarks from leading central banks. For details and further documentation, see Laxton et al. (2018).
- The document that describes the Monetary Policy Framework was revised and updated, and it has been complemented with the launch of the Financial Policy Framework, leading to an increase in the degree of transparency regarding the objectives.
- Also, significant changes have been made in the communication of the projections and the analysis was strengthen supported by milestones such as the publication of the Book of Models (including replication manuals with data and codes) and the use since March 2020 of a corridor for signaling the most likely path of the future monetary policy rate.

How does the CBOC compare with other top central banks on transparency? Figure 2 presents the CBT-IT index for Chile, with the same CB-IT indices for the Reserve Bank of New Zealand

and the Czech National Bank. These indices were recently updated by Haworth, Kostanyan, Laxton (2020), based on the methodology developed by Al-Mashat *et al.* (2018). According to this methodology, the recent increases in CBOC transparency have been sufficient to close the gap between 2 of the topmost transparent central banks in the world. Unlike many other central banks in the world, the RBNZ and CNB have not experienced credibility issues where long-term inflation expectations have ratcheted significantly below their 2 percent target, underscoring the importance of central bank transparency.

Figure 2: Comparison of CBT-IT index for CBOB, RBNZ and CNB

(Score, perfect score 20)
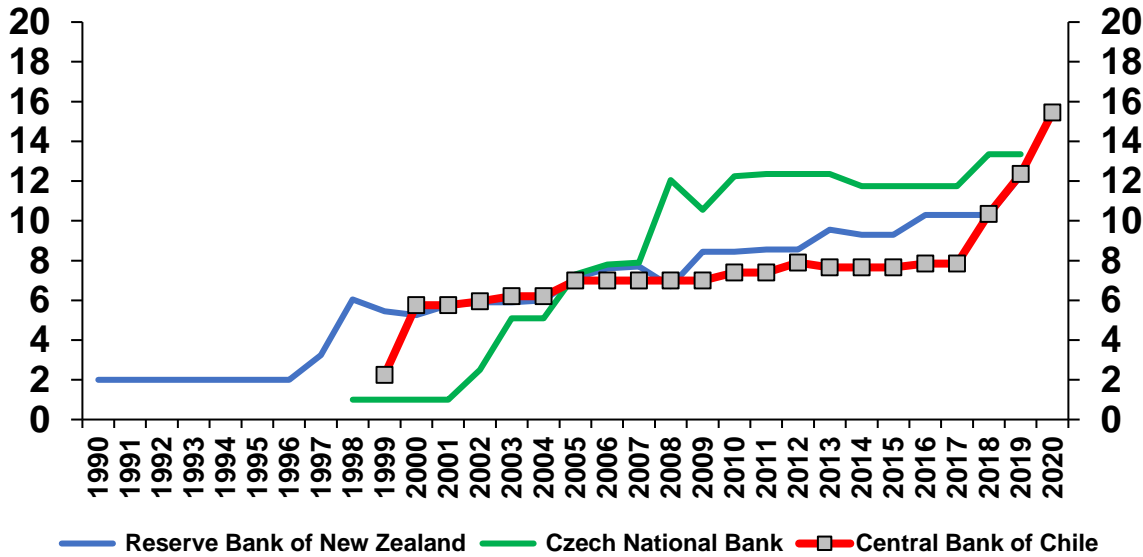
Source: Haworth, Kostanyan and Laxton, 2020, based on Al-Mashat et al. (2018). For Chile, own calculations. Year 2020 not available for CNB and RBNZ.

4. Conclusions

This note constructed a transparency index for Chile following the methodology proposed by Al-Mashat *et al.* (2018). The components of the index include measures of transparency about monetary policy objectives, the FPAS designed to support inflation targeting, and the monetary

policymaking process. The analysis of the results suggests a clear and identified improvement in transparency starting in 2018, after the CBOC sought external advice and a technical evaluation of the core methodologies that were in use for producing the main projections. The CBOC also issued updated documentation describing the Monetary Policy Framework complemented with the Financial Policy Framework, which turned out to be useful to support the monetary stimulus package in the Covid-19 episode (conventional and unconventional policy measures).

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