Measuring the Transparency of the Central Bank of Egypt as a Prerequisite for Adopting Inflation Targeting Policy

HEBATALLA EMAM Cairo University, Egypt hebatalla.atef@feps.edu.eg hebatalla.emam@cu.edu.eg ISRAA ABD ELAZIZ Cairo University, Egypt israa.abdelaziz2013@feps.edu.eg

NAGWA SAMAK Cairo University, Egypt nagwasamak@feps.edu.eg

It has been almost two decades since the Central Bank of Egypt initially announced its intention to adopt the IT regime once the fundamental prerequisites were met. The transition towards the IT policy has been part of the complete revamping and reform of monetary policy in Egypt following the various challenges in the Egyptian economy has been undergoing since the late nineties (Al-Mashat 2008). Thus, the CBE has paid continuous attention to comply with the preconditions of the IT policy (Youssef 2007). The purpose of this paper is to assess the degree of transparency of the CBE over the period 2005-2021. The study relies on the most recently developed index for Central Bank transparency for inflation-targeting central banks, designed by Al-Mashat et al. (2018) to quantify the degree of transparency of the CBE. The analysis reveals that CBT in Egypt is advancing, but with a relatively reasonable path of change. Still, the CBE has a large void to fill, especially pertaining to the transparency related to the Forecasting and Policy Analysis System and policy-making process.

Key Words: central bank transparency, inflation targeting, central bank transparency for inflation-targeting central banks index, Central Bank of Egypt

© BY-NC-ND https://emuni.si/ISSN/2232-6022/16.201-219.pdf

INTRODUCTION

The inflation targeting (IT) regime refers to the monetary policy framework that several central banks have adopted since the late

1990s. It assigns the ultimate priority to the price stability objective which any other potential goals should be in line with and subordinate to (Bernanke et al. 1999). A considerable part of literature on the IT regime focuses on specifying the important preconditions for the adoption of such a regime (Eichengreen et al. 1999; Savastano, Masson, and Sharma 1997; Khan 2003; Batini and Laxton 2006). Basically, these prerequisites could be categorized as institutional and technical prerequisites.

[202]

On the institutional side, central bank independence, high levels of transparency, and well-defined decision-making arrangements are among the main prerequisites. Technical prerequisites incorporate the existence of an appropriate price index for measuring the inflation target, an effective transmission mechanism between the monetary policy instrument and inflation, the timely availability of high-quality data, and sophisticated forecasting models for inflation forecasting. It is notable that the transparency prerequisite of IT has gained momentum since the early stages of adopting IT as it is highly related to the effectiveness and success of each one of the abovementioned preconditions (Eichengreen et al. 1999; Peter, Heenan, and Roger 2006).

Therefore, central bank transparency has become one of the key features of monetary policy of most central banks that adopt the IT regime (Crowe and Meade 2008). This increasing importance of CBT entails both theoretical and empirical rationales (Eijffinger and Cruijsen 2007). Theoretically, CBT could promote the central bank's ability to build its reputation, decrease the inflation bias, and provide the central bank with greater flexibility to adjust to unexpected shocks (Woodford 2005; Freedman, Klaus, and Broaddus 2002). Moreover, CBT fosters the effectiveness of monetary policy and sets the basis for central-bank accountability (Geraats 2000). Empirically, it has been proved that greater levels of CBT are associated with lower levels of inflation and unemployment and accordingly, stable economic performance. This is attributed to wellanchored inflation expectations, which in turn help to fulfil the ultimate objective of the IT regime of price stability (Siklos 2002; Dincer and Eichengreen 2007; Łyziak, Mackiewicz, and Stanisławska 2007;

Crowe 2010; Dincer and Eichengreen 2010; Capistrán and Ramos-Francia 2010; Dincer and Eichengreen 2014).

Consequently, there has been an international trend towards enhancing monetary policy transparency. However, transparency is a qualitative concept that is not easily measurable. Yet, without robust measures of CBT, it is impossible to assess the economic impacts of different degrees of CBT across various countries or even for one country across time. Thus, there has been a continuously increasing number of studies that attempt to quantify CBT by constructing several indices and updating them regularly to incorporate changes in the different aspects and definitions of CBT. Most of the CBT indices focus on disclosed information about monetary policy process: objectives, policy decisions, the implementation of these decisions, and their rationale (such as Fry et al. (2000) and Eijffinger and Geraats (2006)).

Other CBT indices consider dimensions, such as clarity and actual comprehension of the central bank's disclosed information (like de Haan, Amtenbrink, and Waller (2004) and Fracasso, Genberg, and Wyplosz (2003)). In addition, the methods by which central banks convey their key messages are of utmost significance as they have a crucial role in the understandability of the released information. Thus, the analysis of different communication tools of central banks (i.e., monetary policy report (MPR) or inflation report, monetary policy committee (MPC) meeting minutes, and financial stability reports) has gained greater attention in order to comprehensively tackle both released information and its quality (Blinder et al. 2001; Jeanneau 2009).

Notwithstanding the various indices developed to measure CBT, there is only one study presented by (Al-Mashat et al. 2018) that tries to construct a specific CBT index for IT monetary policy. Given that the IT regime is considered the most transparency-requiring monetary policy regime compared to others, it is of paramount significance to develop a particular CBT index to account for the required sophisticated forms of information disclosure and communication by any IT central bank. The index of (Al-Mashat et al. 2018) of three main categories; transparency regarding monetary policy ob-

[203]

jectives, transparency regarding the Forecasting and Policy Analysis System (FPAS), and transparency regarding the monetary policy-making process. These categories are the crucial underpinnings of a fully-fledged IT system (Svensson 1997). Moreover, Egypt has been out of the scope of most studies that either construct CBT indices or assess the impacts of different levels of CBT. The empirical studies on assessing Egypt's CBT remain thin on the ground. Only few studies endeavour to analyse some aspects of Egypt's CBT (Farrag and Kamaly 2007; Emam, Fayed, and Fouad 2021) as part of their attempts to quantify the degree of independence of the Central Bank of Egypt (CBE). Therefore, it is important to present recent studies that could provide a thorough assessment of the transparency of the CBE, with particular attention paid to its vital role in the successful transition towards a fully-fledged IT regime.

Therefore, this study attempts to quantify the transparency of the CBE from 2005 to 2021 by applying the CBT-IT index. It provides a comprehensive analysis of how the CBT-IT of the CBE has evolved since the early announcement of the CBE's intention to adopt a fully-fledged IT regime in 2005, taking into consideration the various reforms and changes that monetary policy and the entire Egyptian economy have witnessed since then. Accordingly, the study presents an inclusive elaboration of the CBE's performance on each component of the CBT-IT index during this period. It concludes that the CBE's transparency has kept improving since 2005 till 2021; still, the CBE has a large void to fill, especially in the FPAS and policy process transparency.

LITERATURE REVIEW

[204]

The seminal work of (Dincer and Eichengreen 2007) is the first to include the CBE in its cross-country sample. Their study applies the methodology of the Eijffinger and Geraats (EG) index¹ (2002) for 100 central banks over the period (1998–2005). It has reported that the degree of Egypt's CBT is modest and profoundly lower than the average transparency of both the entire sample and that of the whole African region in 2005² (Eijffinger and Geraats 2002). Thereafter, Dincer and Eichengreen (2010; 2014) updated their earlier study by



expanding the dimensions of time and countries. They have found that the transparency of the CBE has experienced a remarkable increase since 2005. For instance, in 2010, Egypt's score on the EG index of CBT (5) exceeded the African average CBT score (4.4). Besides, the difference between the average CBT score of the total sample (which was 5.5 in 2010) and CBE's score has decreased (Dincer and Eichengreen 2010; 2014).

[205]

In the aftermath of the global financial crisis, Dincer, Eichengreen, and Geraats (2019) have presented a modified version of their previous index of CBT. The CBE was among the 112 central banks for which have measured CBT. According to their calculations, the transparency of the CBEcontinued to increase even after the crisis and reached a score of 6 out of 15 in 2015, which is, fortunately, higher than the African average score (4.9). Another study that measured transparency of the CBE was that of Horvath and Vasko (2016). They quantified the financial stability transparency (FST) of 110 countries during the period (2000–2011). Although they have reported a worldwide trend towards higher transparency about financial stability issues, the CBE has received the lowest score on their FST index, because it did not publish a financial stability report during the study period (Horváth and Vaško 2016).

The main void of the abovementioned cross-country studies is that they have not provided an in-depth country analysis of CBT in Egypt, in addition to ignoring the most recent changes in the Egyptian monetary policy context. Furthermore, other relevant studies covering Egypt are mainly related to the Central Bank Independence (CBI) literature. They have dealt with CBT only as a component of the CBI indices, hence tackling only part of the transparency criteria contributing to CBI.

Among the CBI studies, studies by Farrag and Kamaly (2007) and Emam, Fayed, and Fouad (2021) have measured the transparency of the CBE as a sub-index of CBI. First, Farrag and Kamaly (2007) assessed CBT in line with applying the legal CBI index of Jácome (2001)³ for the CBE over the period (1961–2004). In the context of this index, CBT is tackled only by the frequent publishing of financial statements verified by external auditor. Their study concludes

that the CBE reached the maximum score of CBT (i.e., it scored 1 out of 1 in the CBT sub-index from 1972 until 2004) due to its legal commitment to regularly disclose its externally certified financial statements.

[206]

Second, Emam, Fayed, and Fouad (2021) evaluated the de jure and de facto CBI of the CBE, and tried to measure the gap between them during the period (1993–2017). Both indices involve CBT as one of their sub-indices. The CBT sub-index of the de jure index focuses on policy and procedural transparency in terms of publishing regular reports and notes on policy changes with their justifications. They have pointed out that the legal CBT score is very modest and constant at 0.25 out of 1 throughout the study period, because of the deficient legal obligation of the CBE to release periodic reports. Meanwhile, their de facto CBI index incorporates a wider range of CBT pillars. Namely, economic transparency in the form of the dissemination of macroeconomic forecasts and forward-looking analysis. Besides, it has expanded procedural transparency practices to comprise the proclamation of MPRs (or inflation reports) and MPC meetings' minutes. Unlike the de jure CBT score, the de facto transparency of the CBE has improved gradually since 2011 and reached the highest score of 1 in 2017. The study indicates that the remarkable difference between both measures of CBT (i.e., a de facto score of 1 compared to a de jure score of 0.25 in 2017) is justified by the insufficiency of the legal provisions to enhance CBT.

METHODOLOGY

This study employs the CBT-IT index proposed by Al-Mashat et al. (2018). This index is divided into three main elements: transparency about monetary policy objectives, transparency about the Forecasting and Policy Analysis System (FPAS), and transparency about the monetary policymaking process. Each element of the index is further divided into several criteria. The total number of criteria included in the index is 20. Each of the 20 criteria is coded by a uniform scale from zero to one, with zero representing the lowest degree of transparency and one for the highest degree of transparency. The transparency score within each criterion varies according to the rele-

Measuring the Transparency of the Central Bank of Egypt

TABLE 1 Main Components of the CBT-IT Index

Component	Criteria			
Transparency	Statement of the central bank objective(s).			
- ,	Clear communication of the central bank announced objective(s).			
objectives	The role of financial stability in monetary policy communication.	[2		
	Communication of the achievement of the central bank objective(s).			
Transparency about the FPAS	Public availability of the pivotal economic databases used within the FPAS.			
	Publication of the core monetary policy model.			
	Publication of the reaction function or loss function.			
	Publication of all key central-bank forecasts produced by the FPAS.			
	Publication of fan charts for all key central-bank forecasts.			
	Publication of underlying methodology used to produce the fan charts.			
	Publication of forecast revisions of all key central-bank			
	projected macroeconomic variables.			
	Publication of alternative scenarios.			
	Publication of the historical data and forecasts of the financial variables.			
Transparency	Publication of press releases.			
about Policy Process	Webcasting of the press conferences and the public availability of their presentations.			
	The public availability of the Q&A sessions with the regular forecast updates.			
	Publication of the minutes of the MPC meetings.			
	Explicit communication of the role of staff and policymakers in			
	the baseline forecast process.			
	Public availability of periodic review of the forecasting			
	performance.			
	Public availability of an external and independent evaluation of the policy framework and the FPAS.			

NOTES Adapted from Al-Mashat et al. (2018).

vant transparency practice(s). The maximum score of the CBT-IT index is 20, reflecting the highest degree of central bank transparency for inflation targeting. The CBT-IT index is calculated as the sum of the scores of each criterion.

MEASURING THE CBT-IT OF THE CBE

[208]

Although the Egypt-focused studies have provided quantification for some dimensions of CBT, they have not presented a comprehensive measure of CBT. Moreover, they have not paid the appropriate attention to the CBT practices that are of utmost significance to the IT policy. Therefore, this study fills the void in literature by measuring the CBT for IT policy for the CBE from 2005 to 2021. These 17 years can be categorized into three sub-periods according to the contemporaneous substantial variations that the monetary policy and the entire economy have witnessed. *The first sub-period* (2005–2010) started with the official announcement of CBE's intention to switch towards the IT policy, accompanied by thorough economic, monetary, and banking reforms. This period also reflects the early beginning of the CBE's efforts for fostering CBT. The second sub-period (2011–2016) witnessed remarkable political and economic changes in Egypt that have impacted CBT practices. *The third sub-period* (2017– 2021) marks Egypt's adoption of an economic and monetary reform programme. Besides, the CBE has disclosed its inflation forecast for the first time - which is considered a serious step towards promoting the CBT-IT. Therefore, it is important to track how each element of the CBT-IT index has evolved across the three sub-periods.

Transparency about Monetary Policy Objectives

The only transparent practice followed by the CBE in the first period has been the explicit disclosure of the price stability overriding (Central Bank of Egypt 2005). Therefore, it begins with a score of 1 out of 4 in the first period. The CBE has emphasised the priority of price stability objective on its official website and each issue of its periodic publications (e.g., annual reports and MPC press releases) throughout the 3 sub-periods of the study. In addition, the CBE spares no effort in expressing its keenness on sustaining the output and investment growth without jeopardizing its primary objective of price stability. Yet, neither law no. 88 of 2003 nor law no. 194 of 2020 have declared such a priority. On another note, the CBE has turned out to be more open about its financial stability concerns and introduced its macroprudential toolkit in the second sub-period



IJEMS

(Central Bank of Egypt 2011; 2014), therebyscoring double in transparency regarding objectives (i.e., 2 out of 4) in the second period. Additionally, the CBE has been sharing publicly quantitative inflation targets with well-defined target horizons since 2017 (Central Bank of Egypt 2017). This in turn allowed the CBE to gain a higher score in the third period, which was 2.5 out of 4. On the contrary, there exists some ambiguity about the achievement of CBE's policy objectives (i.e., the management of the short-run output-inflation trade-off)whereby there has not been any published quadratic loss function tackling how the CBE assigns penalties to the deviations of inflation from its target and output from its potential level in any of the sub-periods.

[209]

Transparency about the FPAS

The CBE has exerted various efforts to improve its performance within this dimension. In the first sub-period, The CBE paid due attention to the process of building and the ongoing amelioration of various inflation forecasting models (Al-Mashat 2008). Moreover, it created the monetary policy sector to provide a regular objective evaluation of the monetary policy to the MPC before each meeting (Central Bank of Egypt 2004). In addition, the technical infrastructure of the monetary policy sector has been enhanced through hiring well-educated and specialised staff, as well as developing the skills of the existing staff via training courses in cooperation with international central banks and institutions (Central Bank of Egypt 2013). In addition, the CBE has worked on promoting the quality and accuracy of its macroeconomic databases, especially inflation and GDP (Al-Mashat 2008). It also became a participant in the IMF's Special Data Dissemination System (SDDS)⁵ in January 2005. Furthermore, the CBE inaugurated its core CPI inflation measure⁶ in 2009. Starting from September 2009, the CBE has embarked on publishing a monthly inflation note to provide the public with a regularly updated analysis on the main inflationary dynamics.

In the second period, for the first time, there was a separate section in the CBE's official website for the key time-series datasets, such as different interest rates of various frequencies, core and head-

line inflation rate, GDP, and miscellaneous macroeconomic and financial variables. Moreover, all these time series are available for the public in an Excel downloadable format and can be customized according to various frequencies and timespan. Thus, the CBE is assigned a score of o in most of this category's criteria, except for the part related to the publishing of few macroeconomic and financial datasets, which allows for achieving a score of o.8 out of 9 in the first and second periods.

[210]

During the third period, inflation forecasts and their achievement horizons have been quarterly published in the MPRs since June 2017. The CBE has published fan charts for inflation forecasts to highlight the uncertainty surrounding them and the conditionality of these disclosed forecasts on the available information, explaining why the CBE has gained a higher score (1.2 out of 9) in the FPAS category in the third period of the study. Nevertheless, the underlying methodology of those fan charts has not been elaborated upon in any of the MPRs. Although the CBE has not published alternative scenarios to its inflation forecasts, the upside and downside risks to the announced inflation forecasts are reviewed and discussed in the inflation outlook section of the MPRs. Yet, such discussions of risks are relatively brief and need to be supported with an econometric alternative scenario simulation.

On the other hand, the deficiencies in the CBE's transparency performance in the FPAS regard, which are inherent in all the subperiods, have included the obscurity of the core forecasting model to draw baseline forecasts, the unavailability of the main macroeconomic and financial variables forecasts, and the absence of any forecast revisions.

Transparency about Policy Process

The CBE has exerted remarkable efforts to explain its policy framework and decision-making process via publishing miscellaneous reports and bulletins at various frequencies such as via a monthly statistical bulletin, quarterly economic review, annual report, and quarterly external position of the Egyptian economy (Central Bank of Egypt 2004). The CBE has continuously tried to improve the



quality and understandability of its publications by incorporating charts and analytical indicators into its analysis and promoting the macroeconomic analysis (Central Bank of Egypt 2012). In addition, a communication unit has been set up to improve CBT about the policy process (Serrao 2017). Besides, a new user-friendly website for the CBE was initiated in 2016, with thorough informational content on each sector of the CBE, a wide range of datasets, and the CBE's periodic publications (Central Bank of Egypt 2016). The CBE has also aimed at delivering its vision and efforts to various audience via the most user-friendly techniques. In particular, it launched an official YouTube channel in 2018 to share swiftly and easily the CBE's initiatives, its participation in various international and domestic conferences, and the multimedia interviews with the CBE's top management. The CBE's board members and staff have exerted great efforts in enhancing dialogue with all stakeholders by expanding their contribution to educational presentations and media interviews. Recently, the new Central Bank Act (no. 194 of 2020) committed the CBE to more transparent and accountable practices, such as the obligation of the CBE to release on its official website and the official Egyptian Gazette each decision related to the conduct of its monetary policy, banking supervision, and regulatory framework (Abulnaga 2021). Moreover, the CBE instituted an electronic portal for the Investor Relation (IR) on its official website in 2021. The goal of that portal is to build bridges of trust and communication between the CBE and all investors (Central Bank of Egypt 2021).

Despite the variety within the CBE's communication toolkit, this category has been assigned a constant score of 1 throughout the three periods under study. The CBE's transparency about the policy process still lags behind the best practices of the CBT-IT. Among the main shortcomings are the absence of a periodic press conference with a Q&A session after each scheduled MPC meeting to discuss and explain its policy decisions or upon the publication of key forecasts. Instead, CBE only publishes a brief press statement in English and Arabic immediately after every MPC meeting. However, the CBE has occasionally held some press conferences with Q&A sessions for specific purposes (e.g., presenting the draft of law no.

[211]

TABLE 2 Evolution of the Components of the CBT-IT Index for the CBE (2005–2021)

Component	2005-2010	2011-2016	2017-2021
CBT-IT score for the CBE	2.8	3.8	4.7
Transparency about the objectives	1.0	2.0	2.4
Transparency about the policy process	1.0	1.0	1.0
Transparency about the FPAS	0.8	0.8	1.2

NOTES Calculations based on the CBT-IT index for the CBE.

[212]

194 of 2020). On another note, it is not clear to the public how MPC decisions are taken, as neither the MPC meeting minutes with its attributed voting outcomes nor the forecast role in the decision-making process are published. Lastly, the CBE has not disclosed any information about the potential revision or assessment of FPAS internally or externally.

Overall, the CBT-IT score for the CBE has improved over the three sub-periods. The most notable improvement in the CBT-IT score was found in the last sub-period (2017–2021) due to improvement embedded in the objectives and the FPAS category scores, respectively, compared to the first sub-period. Still, the score of transparency about policy process category has not exceeded one throughout the three sub-periods. It is evident that the CBE still has a long way to go, especially concerning the FPAS and policy process categories. The coming section provides a way forward for the CBE to follow to reach the frontiers of the CBT-IT.

THE WAY FORWARD

Transparency about Monetary Policy Objectives

The CBE should incorporate explicitly the precedence of the price stability objective into its legal statute. This can eliminate the mismatch between the CBE's legal framework and its official website regarding the statement of the CBE's prioritization of objectives. In addition, as with most IT central banks, the inclusion of a price stability goal and a quantitative inflation target in the legal framework could help the CBE demonstrate its commitment to achieving such a goal. Another criterion of the CBT-IT that the CBE should work



on is the communication of the quantitative inflation target and its bands. Further elaboration is needed on the interpretation of the bands around the target to reinforce CBE's credibility and steer inflation expectation whereby the CBE must disclose to the public that it targets a specific point of inflation and there can be some variation in the actual inflation. In other words, the CBE should assure its keenness to attain the midpoint of the inflation variation band despite any possible deviation. Finally, the publication of the loss or reaction function could strengthen the communication channel between the CBE and all stakeholders, especially the academic community. It could therefore, act as a quantitative assessment of the CBE short-run inflation-output trade-off management.

[213]

Transparency about the FPAS

While no central bank has attained the full score of this category, the CBE has missed most of the transparent criteria adopted by other IT central banks. First, a wider set of historical and forecasts of macroeconomic and financial variables should be available and downloadable on the official website of the CBE or at least the links of those datasets in other statistical institutions. Second, the CBE needs to release its core projection model along with generating codes and assumptions in a working paper format that gets updated every five years. Third, the risk and uncertainty analysis should gain greater attention in the CBE's periodic publications, particularly in its quarterly MPRs, and not just be merely expressed through words as is currently the case, Each disclosed forecast (not only inflation) should be associated with fan charts to display the uncertainty intervals along with a detailed explanation for the underlying methodology. Besides, the CBE must regularly incorporate alternative scenarios into its core forecasts to explain any potential risks.

Transparency about Policy Process

Notwithstanding the CBE's efforts to institute a comprehensive communication process, more is needed from the CBE side to be better aligned with the transparency criteria required for the IT policy (Emam 2021). First, holding frequent and live-streamed press

conferences, especially after each meeting of the MPC and the publication of core forecasts must be a convention. In addition, the presentations and the Q&A sessions of those conferences should be accessible online in both Arabic and English. Second, the CBE could start gradually disclosing the discussions and opinions of the MPC members on the announced decisions. Third, the whole policy process, including the FPAS, must be evaluated periodically by both the CBE's economists and external experts or institutions. Their outcomes could be published on the CBE official website.

Furthermore, just as the shift to a fully-fledged IT policy cannot be accomplished overnight and requires steady preparation, the optimal performance of the CBT-IT might take some time as well. The real concern, however, is the continual efforts to shorten that transition period by adopting the best practices. It is also worth emphasising that each central bank has its own vision of the acceptable level of CBT, which is defined by the central bank's assessment of various stakeholders' social, political, and economic circumstances.

CONCLUSION

[214]

To measure the transparency of the CBE as a prerequisite for adopting the IT policy, the present study highlights the most recently developed CBT index by Al-Mashat et al. (2018), known as the central bank transparency index for inflation-targeting central banks (CBTIT), which has been especially developed to account for the best practices of CBT required for a fully-fledged IT regime. The CBT-IT index is composed of three main elements; transparency about monetary policy objectives, transparency about the FPAS, and transparency about the monetary policy-making process.

The study assesses the transparency of the CBE throughout the three studied sub-periods (2005–2010, 2011–2016, 2017–2021) by employing the CBT-IT index within each sub-period. The study finds that the performance of the CBE in the three categories of the CBT-IT index has witnessed a relatively reasonable path of progress across the studied periods. Regarding the objectives, the CBE's transparency has improved significantly over the course of the study. First, it started with the clear disclosure of the price sta-



bility overriding, in the first sub-period. Following that, the CBE became more open about financial stability concerns in the second sub-period. Then, it eventually disclosed quantitative inflation targets with well-defined target horizons, starting in 2017. However, the CBE neither discloses its preferences nor its short-term tradeoff between inflation and output.

[215]

On the FPAS side, the CBE has exerted various efforts to improve this dimension: the most remarkable features of efforts are the CBE's subscription to SDDS in 2005 to ensure the timeliness, accessibility, integrity, and quality of its published databases, the inauguration of the CBE's core CPI inflation measure in 2009, and the release of a monthly inflation note to provide updated information on the key inflationary dynamics. Moreover, in the third sub-period of the study, the CBE initiated many transparent practices, such as the disclosure of the CBE's numeric inflation target, and the publication of inflation forecasts and their uncertainty bands (i.e., their associated fan charts). Still, there remain some inherent shortcomings in this regard such as the obscurity about the core forecasting model to draw the baseline forecasts, the unavailability of the main macroeconomic and financial variables forecasts, and the absence of any forecast revisions.

Pertaining to transparency about the policy process, the CBE has taken many steps towards reinforcing communication with all stakeholders via publishing miscellaneous reports and bulletins at various frequencies, establishing a specialised unit of communication inside the CBE, diversifying its communication channels such as its user-friendly official website, its YouTube channel, and other educational and multimedia presentations. Nonetheless, more measures are still missing as the CBE has not held any periodic press conference with a Q&A session, neither after each scheduled MPC meeting to discuss and explain its policy decisions nor when publishing its key forecasts. Furthermore, the public has not been provided a clear picture of how the MPC reached major policy choices, because neither the MPC meeting minutes with attributed voting outcomes nor the forecast role in the decision-making process are publicly disclosed. Lastly, the CBE has provided little information about its in-

ternal or external initiatives to revise and assess its FPAS. Thus, the CBE's transparency performance is still in need of further reforms to be compatible with the required swift transition towards a fully-fledged IT regime.

[216]

NOTES

- 1 The EG index is the first monetary policy transparency index that assesses the political, economic, procedural, policy, and operational aspects of CBT. Their index is calculated from the scrutiny of actual information disclosure related to each stage of the decision-making process of monetary policy.
- 2 While the CBT score of Egypt was 2 in 2005, the (unweighted) average score of the whole sample and the African region were 5.2 and 3.9, respectively (Dincer and Eichengreen 2007).
- 3 For further information about this legal CBI index, see (Jácome 2001).
- 4 The FPAS is the organisational framework that provides the regular flow of macroeconomic information to policymakers for their decisions on the policy instrument path (e.g., the policy interest rate) (Clinton et al. 2015).
- 5 The aim of the CBE's subscription to SDDS was to ensure the timeliness, accessibility, integrity, and quality of its published databases by the application of international best criteria (International Monetary Fund 2005).
- 6 This measure of CPI is different from the headline one in terms of dropping the temporary noise (i.e., price fluctuations in the highly volatile goods such as foodstuff and subsidized goods) from the permanent price movements.

REFERENCES

- Abulnaga, R. 2021. 'Monetary Policy Implementation in the Arab Republic of Egypt.' In *Central Bank Background Papers on Monetary Policy Frameworks in The Arab Region*, 144–63. Abu Dhabi: Arab Monetary Fund.
- Al-Mashat, R. 2008. 'Monetary Policy In Egypt: A Retrospective And Preparedness For Inflation Targeting.' Working Papers 134, The Egyptian Center for Economic Studies, Cairo.
- Al-Mashat, R., A. Bulíř, N. N. Dinçer, T. Hlédik, T. Holub, A. Kostanyan, D. Laxton, et al. 2018. 'An Index for Transparency for Inflation-Targeting Central Banks: Application to the Czech National Bank.' WP/18/210, International Monetary Fund, Washington, DC.
- Batini, N., and D. Laxton. 2006. 'Under What Conditions Can Inflation Targeting Be Adopted? The Experience of Emerging Markets.' Working Papers 406, Central Bank of Chile, Santiago.
- Bernanke, B. S., T. Laubach, F. S. Mishkin, and A. S. Posen. 1999. *Inflation Targeting: Lessons from the International Experience*. Princeton, NJ: Princeton University Press.



- Blinder, A., C. Goodhart, P. Hildebrand, D. Lipton, and C. Wyplosz. 2001. 'How Do Central Banks Talk?' Geneva Reports on the World Economy 3, International Center for Monetary and Banking Studies, Geneva and Centre for Economic Policy Research, London.
- Capistrán, C., and M. Ramos-Francia. 2010. 'Does Inflation Targeting Affect the Dispersion of Inflation Expectations?' *Journal of Money, Credit and Banking* 42 (1): 113–34.

[217]

Central Bank of Egypt. 2004. *Annual Report* 2003/2004. Cairo: Central Bank of Egypt.

—. 2011. Annual Report 2010/2011. Cairo: Central Bank of Egypt.

- ——. 2005. Annual Report 2004/2005. Cairo: Central Bank of Egypt.
- _____. 2012. Annual Report 2011/2012. Cairo: Central Bank of Egypt.
- ——. 2013. Annual Report 2012/2013. Cairo: Central Bank of Egypt.
- ——. 2014. Financial Stability Report 2014. Cairo: Central Bank of Egypt.
- -----. 2016. Annual Report 2015/2016. Cairo: Central Bank of Egypt.
- ——. 2017. Monetary Policy Report March 2017. Cairo: Central Bank of Egypt.
- -----. 2021. Financial Stability Report 2021. Cairo: Central Bank of Egypt.
- Clinton, K., C. Freedman, M. Juillard, O. Kamenik, D. Laxton, and H. Wang. 2015. 'Inflation-Forecast Targeting: Applying the Principle of Transparency.' WP/15/132, International Monetary Fund, Washington, D.C.
- Crowe, C. 2010. 'Testing the Transparency Benefits of Inflation Targeting: Evidence from Private Sector Forecasts.' *Journal of Monetary Economics* 57 (2): 226–32.
- Crowe, C., and E. E. Meade. 2008. 'Central Bank Independence and Transparency: Evolution and Effectiveness.' *European Journal of Political Economy* 24 (4): 763–77.
- Dincer, N. N., and Barry Eichengreen. 2007. 'Central Bank Transparency: Where, Why, and with What Effects?' NBER Working Papers 13003, National Bureau of Economic Research, Cambridge, MA.
- ——. 2010. 'Central Bank Transparency: Causes, Consequences and Updates.' Theoretical Inquiries in Law 11 (1): 75–123.
- ——. 2014. 'Central Bank Transparency and Independence: Updates and New Measures.' *International Journal of Central Banking* 10 (1): 189–259.
- Dincer, N. N., B. Eichengreen, and P. Geraats. 2019. 'Transparency of Monetary Policy in the Postcrisis World.' In *The Oxford Handbook of the Economics of Central Banking*, edited by D. G. Mayes, P. L. Siklos, and J.-E. Sturm, 286–334. Oxford: Oxford University Press.
- Eichengreen, B., P. Masson, M. Savastano, and S. Sharma. 1999. 'Transition Strategies and Nominal Anchors on the Road to Greater Exchange-Rate Flexibility.' Princeton Essays in International Economics, Princeton University, Princeton, NJ.

- Eijffinger, S. C. W., and C. Cruijsen. 2007. 'The Economic Impact of Central Bank Transparency: A Survey.' CEPR Discussion Papers 6070, Centre for Economic Policy Research, London.
- Eijffinger, S. C. W., and P. Geraats. 2002. 'How Transparent Are Central Banks?' CEPR Discussion Papers 3188, Centre for Economic Policy Research, London.
- ——. 2006. 'How Transparent Are Central Banks?' European Journal of Political Economy 22 (1): 1–21.
- Emam, H. A. 2021. 'Interest Rate Setting in Egypt: A NARDL Approach for Estimating Backward-Looking Monetary Policy Reaction Function.' *Applied Economics* 53 (57): 6655–69.
- Emam, H. A., M. Fayed, and J. Fouad. 2021. 'Central Bank of Egypt: Independence Status and Way Ahead.' *IOSR Journal of Economics and Finance* 12 (5): 43–59.
- Farrag, N., and A. Kamaly. 2007. 'Measuring the Degree of Central Bank Independence in Egypt.' Working Papers 4, The German University in Cairo, Cairo.
- Fracasso, A., H. Genberg, and C. Wyplosz. 2003. 'How Do Central Banks Write?' Geneva Reports on the World Economy 2, International Center for Monetary and Banking Studies, Geneva and Centre for Economic Policy Research, London.
- Freedman, C., V. Klaus, and J. A. Broaddus. 2002. 'Panel Discussion: Transparency in the Practice of Monetary Policy.' *Federal Reserve Bank of St. Louis Review* 84 (4): 155–66.
- Fry, M., D. Julius, L. Mahadeva, S. Roger, and G. Sterne. 2000. 'Key Issues in the Choice of Monetary Policy Framework.' In *Monetary Policy Frameworks in a Global Context*, edited by L. Mahadeva and G. Sterne, 2:1–216. London: Routledge.
- Geraats, P. 2000. 'Why Adopt Transparency? The Publication of Central Bank Forecasts.' CEPR Discussion Papers 2582, Centre for Economic Policy Research, London.
- Haan, J. de, F. Amtenbrink, and S. Waller. 2004. 'The Transparency and Credibility of the European Central Bank.' *Journal of Common Market Studies* 42 (4): 775–94.
- Horváth, R., and D. Vaško. 2016. 'Central Bank Transparency and Financial Stability.' *Journal of Financial Stability* 22 (February): 45–56.
- International Monetary Fund. (2005). 'Arab Republic of Egypt.' Country Report 05/177, International Monetary Fund, Washington, DC.
- Jácome, L. I. 2001. 'Legal Central Bank Independence and Inflation in Latin America During the 1990s.' WP/01/212, International Monetary Fund, Washington, DC.
- Jeanneau, S. 2009. 'Communication of Monetary Policy Decisions by Central Banks.' BIS Papers 47, Bank for International Settlements, Basel.



Measuring the Transparency of the Central Bank of Egypt

- Khan, M. 2003. 'Current Issues in the Design and Conduct of Monetary Policy.' WP/03/056, International Monetary Fund, Washington, DC.
- Łyziak, T., J. Mackiewicz, and E. Stanisławska. 2007. 'Central Bank Transparency and Credibility: The Case of Poland, 1998–2004.' *European Journal of Political Economy* 23 (1): 67–87.
- Peter, M., G. Heenan, and S. Roger. 2006. 'Implementing Inflation Targeting: Institutional Arrangements, Target Design, and Communications.' WP/06/278, International Monetary Fund, Washington, DC.
- Serrao, C. B. 2017. 'Modernization of the Monetary Policy Framework.' In *The Arab Republic of Egypt: Selected Issues*, pp. 38–44, Washington, DC: IMF.
- Savastano, M. A., P. R. Masson, and S. Sharma. 1997. 'The Scope for Inflation Targeting in Developing Countries.' WP/97/130, International Monetary Fund, Washington, DC.
- Siklos, P. 2002. *The Changing Face of Central Banking*. Cambridge: Cambridge University Press.
- Svensson, L. E. O. 1997. 'Inflation Forecast Targeting: Implementing and Monitoring Inflation Targets.' *European Economic Review* 41 (6): 1111–46.
- Woodford, M. 2005. 'Central Bank Communication and Policy Effectiveness.' NBER Working Papers 11898, National Bureau of Economic Research, Cambridge, MA.
- Youssef, H. 2007. 'Towards Inflation Targeting in Egypt Fiscal and Institutional Reforms to Support Disinflation Efforts.' Economic Papers 288, European Commission, Brussels.

[219]