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## Central bank communication design: towards transparency of monetary policy<sup>1</sup>

**Abstract**

The *object* of the article is central bank communication design (particularly target audience, channels and instruments) and central banks' transparency measurement. The *purpose* is to summarise the central bank communication policy's conceptual basics and clarify how transparent the NBU's monetary policy is. *Methodology*. The paper applies the Dincer and Eichengreen (2014) and Al-Mashat et al. (2018) methods of transparency measurement, using the NBU's published documents and website data as of 2021. *Results*. It has been emphasized that communication design should be based on central bank's communication objectives, information demand from defined stakeholders and target groups, capabilities of application of channels and instruments. Ensuring confidence in monetary policy calls for simplified language and format that reflects the general public's interest. The shift to the growing role of the type of communication channel and interaction of central bank with the general public are marked out. The meaning of transparency, criteria, and indices (Eijffinger-Geraats, Dincer-Eichengreen, Crowe-Meade, Cournede-Minegishi, CBT-IT index) are under consideration. According to Dincer and Eichengreen, the NBU's transparency index reaches almost a perfect score of 12 (out of 15), affirming NBU's political and policy transparency improvements. The NBU's CBT-IT transparency index scores 11.45 (out of 20), which points to the need to eliminate gaps of the FPAS designed to support full-fledged inflation-forecast-targeting (3.2 out of 9) in the light of improvements in the monetary policymaking process (5.75 out of 7) and transparency about monetary policy objectives (2.5 out of 3). *Practical implications*. The enhancement of the NBU's transparency level reflects the development of its communication policy as transparency of monetary policy requires constant and coherent messages via diversified channels and instruments for a defined target audience, following a clear purpose of strategic communication. *Value/originality*. It has been highlighted that central bank communication design is the basis for financial market participants' trust, favouring monetary policy transparency.

**Keywords**

Central bank, monetary policy, communication, transparency index, expectation, trust, the National Bank of Ukraine

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**1 Introduction**

Today, communication policy is an essential part of the central bank's toolkit since it affects financial markets, contributes to the achievement of macroeconomic goals, and increases predictability, trust and accountability. The introduction of inflation targeting has also primarily relied on effective communication due to the crucial role of inflation expectations. However, the communication strategies of central banks vary as needs and circumstances differ.

Since the global financial crisis, central banks have significantly stepped up their communications policies, communicating almost twice as often with markets and the general public. In addition, many central banks have already reached the effective lower bound of interest rates and are limited in using the main instrument of traditional monetary policy (Baranowski et al., 2020).

In its turn, the unpredictability of the COVID-19 pandemic has driven financial instability exacerbated by uncertainty about future economic development. Central

banks cannot make monetary policy decisions based only on GDP and inflation forecasts in such an environment. Accordingly, the content, sentiment, and timing of the central banks' communications are changing now.

Although central banks have been engaging more with the general public on monetary policy issues over the past decade, there is still a concern of misunderstanding. That contributes to a lack of trust in the central bank. Individuals may never embrace central banks' messages because they are written so that they cannot understand. At the same time, there is a risk that if communication is too simplistic under a complex monetary policy, people may develop a false sense of confidence about the views of central banks on the economy. Plain messages can ultimately disappoint the general public if the central bank fails to deliver on its predictions (Haldane et al., 2020).

Importantly, the central bank's communication impact on the economy is associated not only with the compliance of expectations and actual results but also with economic agents' perception of the central bank's actions. Therefore, trust also depends on whether the public considers the

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central bank's monetary policy to be transparent. The task to transform monetary policy is up to date for the National Bank of Ukraine (NBU) since the confidence of a broad audience in it is still low. Though the balance of trust in the NBU (the difference between the share of those who trust and those who do not trust the public institution) has increased over the last four years, the improvement is slightly perceptible: from -69.8% (May 2017) to -31.0% (August 2021) (Razumkov centre, 2021). As the transparency of the central bank is closely linked to confidence in its actions, the communication policy of NBU is seen as a tool for offsetting uncertainty by managing market participants' expectations and strengthening their trust in the financial institution.

## **2 Communication instruments and channels for target audience**

As a whole, communication is the process of exchanging information between individuals or groups of individuals and includes a sender (source), message (signal), channel, receiver, barriers (noise). Central bank communication is not so much about the text as about the way of providing information. One can distinguish organizational, physical, linguistic, cultural, and interpersonal factors of central bank communication.

Communication objectives should be aligned with the overall mission and goals. Strategic communication means "a systematic series of sustained and coherent activities, conducted across strategic, operational and tactical levels, that enables understanding of target audiences, identifies effective conduits, and develops and promotes ideas and opinions through those conduits to promote and sustain particular types of behaviour" (MPhil, 2008, p. 3). The statement of communication objectives forms the identity and image, and reputation of a central bank. The general principles for communication are consistency, timeliness, comprehensiveness, target-group orientation, transparency, clarity, relevance, and policy-related.

Target audience orientation is essential for central bank communication because different economic agents mould certain beliefs and expectations. Moreover, the choice of a specific target audience depends on the goals of communication. Generally, a target audience can be defined as a particular group of people who have something in common and intend to receive a message. In turn, the target audience covers stakeholders and the target groups, including the media (in particular, financial press), financial market participants, academics, and the general public. The latter can be divided according to criteria: socio-demographic (age, education, income), location (city or countryside), media distribution, level of financial inclusion, etc. Each target group has different communication needs. For example, "economists, who understand the economic data and models better, are more likely to be interested in technical details about forecasts, while journalists and politicians may like to know more about the bottom line" (Huang & Simon, 2021, p. 4). The overall goal of defining a target group is to create a message and select a channel that meets specific needs and interests. Besides target group analysis, stakeholders form the basis for monetary policy communication. A stakeholder is an individual or group of people who own a significant percentage of the shares of a company or can be affected by the organization's actions, goals, and policies.

Central banks communicate through quantitative (for example, forecasts) and qualitative channels (public speeches, official publications, statements and minutes, etc.). Channel refers to the physical transmission of information (signal), while instrument refers to the form of content that can be transmitted over different channels. Channels can be grouped into press conferences, meetings, websites, blogs, conferences, lectures, webcasts, central bank museums. Among instruments are press releases, reports, minutes, articles, speeches, interviews, videos, podcasts, informal dialogues, tweets. In turn, channels and instruments differ according to the purpose of use from the central bank's point of view and the target groups. The choice of channels and instruments depends on the information itself, the target audience, and the frequency of application.

Over the past two decades, the communications of central banks have changed quite noticeably. If earlier information about the decision of monetary policy (goals, macroeconomic conditions, forecasts of key variables) determined the transparency and clarity of communication policy, now the type of communication channel affects the credibility of the messages of the monetary authorities. Under the COVID-19 pandemic, central banks in communication policies are trying to tailor their messages to a broad audience. Interpretation of explanations regarding the decisions taken by the central bank is implemented through interaction with the general public through the official websites of central banks and social networks, educational events (museums). Thus, the use of simplified information improves the public's understanding of monetary policy statements and, consequently, increases confidence in central banks.

Based on the fact that households are not very well aware of monetary policy as such, communication of central banks often reaches a broad audience not directly, but through news reports on topics that are in one way or another related to monetary policy (inflation, labour market situation, exchange rate, oil prices, financial stability, uncertainty). Since these issues are components of any key rate decision and are crucial for the households themselves, the central bank's message can influence how the media covers these topics. As a result, central bank communication will affect the expectations of households, even if people are poorly informed about monetary policy. When central banks indicate why the information they provide is vital to the day-to-day life of society, individuals better understand such messages (Ter Ellen et al., 2020). Subsequently, in its communications policy, the central bank should focus on economic data necessary for decision-making, such as the dynamics of employment and prices, and not on the instruments of monetary policy themselves.

Importantly, anti-crisis measures of the central bank require clear and timely communications in order to ensure their perception by society (Unsal & Garbers, 2021, p. 1). Representatives of central banks should report information consistent with time and other data; communicate in clear, simple language and without jargon; conduct interesting and relevant verbal interventions; understand the problems that concern the population (Macklem, 2020). The central bank, via communication policy (including press releases on monetary policy, speeches and press conferences), should actively explain and promptly update information on crisis response measures, including new anti-crisis measures, operational objectives and tools, the expected duration of anti-crisis management and the strategy of exit

from the anti-crisis action program. When the objectives of crisis management seem to contradict the inflation targeting, the central bank should communicate openly about trade-offs, paying particular attention to explaining different time horizons, risk assessment and balancing objectives. The central bank needs to explain how new anti-crisis measures change monetary policy, namely inflation and interest rates, open market operations. The central bank should inform how changes in targets affect the key rate and new operational targets and how all monetary policy instruments are used to achieve operational goals. In addition, anti-crisis measures, such as the monetization of the budget deficit through domestic government bonds, require coordination with fiscal authorities, consequently, increased communication with the central bank. The key is to explain the reasons and conditions of such cooperation and establish a timely and unified communication policy from the standpoint of both authorities. That will help avoid the misconception that central bank independence is under pressure (Unsal & Garbers, 2021, p. 3–7).

Hence, the information must be adopted to provide the communication content for different target groups and stakeholders, achieving different purposes. Central bank communication involves such techniques as visuals, plain language, key messages and different layers. Various communication channels and instruments, such as speeches from central bankers or social media, play an essential role in ensuring that monetary policy messages are disseminated to a broad audience of stakeholders.

### **3 Central bank transparency – meaning and measurement**

In general, central bank transparency is defined “as the absence of asymmetric information between monetary policy makers and other economic agents, that reduces uncertainty (Geraats, 2002, p. 533). It is “the extent to which central banks disclose information that is related to the policymaking process” (Eijffinger & Geraats, 2006, p. 3). Also, transparency means that “the central bank provides the general public and the markets with all relevant information on its strategy, assessments and policy decisions as well as its procedures in an open, clear and timely manner” (ECB, 2021). Transparency of communication policy is the availability and clarity of information needed by market participants to perceive the central bank's actions (Unsal & Garbers, 2021, p. 2). Central bank transparency strengthens confidence in monetary policy by increasing its flexibility and predictability, which facilitates a moderate and gradual reaction from market participants in response to reports of monetary policy intentions and future economic change (Ahokpossi et al., 2020, p. 7). As practice shows, central banks with inflation targeting policies have a higher level of monetary policy transparency. At the same time, although transparency contributes to the development of the financial market, too much transparency can weaken monetary transmission signals and confuse financial market participants' expectations.

The first dataset for measuring central bank transparency was presented by Fry et al. (2000). Their index for 94 central banks was based on a Bank of England's survey of 1998 and covered three sub-indicators: the prompt public explanations of central bank's policy decisions, the frequency and form of forward-looking analysis provided to the public.

However, Geraats's study (2002) has become the benchmark for investigating the monetary policy transparency indices. In her review of the consequences of monetary policy transparency, the criteria (political, economic, procedural, policy and operational) for measuring the transparency were demonstrated. Following Geraats (2002), Eijffinger and Geraats (2006) computed the transparency index for nine major central banks over 1998–2002. They distinguish three sub-categories within each of the five dimensions of transparency. Although their index pointed to a general trend towards greater transparency, the level for several central banks rose significantly over time, especially for economic and policy transparency. In addition, the level of transparency varied among central banks with inflation targeting (Eijffinger & Geraats, 2006, p. 18).

In turn, Dincer and Eichengreen (2007) extended measures of transparency in comparison to the index of Eijffinger and Geraats (2006). In their recent research, Dincer and Eichengreen (2014) updated index for 120 countries (using data from information on central banks' websites and statutes, annual reports, and other published documents), based on five broad criteria (political, economic, procedural, policy, and operational transparency), each of which had three sub-categories. Unlike their previous studies, Dincer and Eichengreen added a measure of the flexibility of the exchange rate regime. The indices reflected that economic and policy transparency increased more than the other components during 1998–2010. At the same time, the authors pointed an upward trend over time in all three categories of economies until 2006. So, central banks of advanced countries had a higher level of transparency than central banks of emerging markets (defined as middle-income countries with significant links to international financial markets), which were more transparent than central banks in developing countries (Dincer and Eichengreen, 2014, p. 209).

Similar in spirit the methodology of Geraats (2002) and Eijffinger and Geraats (2004, 2006), Crowe and Meade (2008) developed a central bank transparency index for a sample of advanced and emerging countries spanning 1998–2006. If the previous index was based on the results of the survey of central banks presented by Fry et al. (2000), Crowe and Meade (2008) updated the index by data from central banks' websites and published documents. The authors revealed that “transparency scores have not demonstrated a significant increase for the sample as a whole, but have for the advanced economies in the sample” (Crowe & Meade, 2008, p. 19). The analysis of the relationship between the transparency index and a measure of the private sector's use of private versus public data enabled researchers to conclude that more use of public information and independence of central bank (as well as the flexibility of the exchange rate regime and institutional quality) led to greater transparency.

In that regard, Minegishi and Cournede (2009) constructed index of transparency, covering eleven OECD central banks based on a detailed investigation of their communication practices during 1999–2009. Their index was adapted by Eijffinger-Geraats index (2004, 2006) and following Geraats (2002) aspects of transparency. Cournede-Minegishi index indicated greater transparency across the economies relatively homogenous in nature. Whereas Eijffinger and Geraats (2006), Dincer and Eichengreen (2007) and Geraats (2008) provided detailed accounts of central bank transparency, Cournede-Minegishi



monetary policy (Al-Mashat et al., 2018, p. 3).

Therefore, Al-Mashat et al. (2018) developed a new transparency index for inflation-targeting central banks (CBT-IT index) that specified measures of transparency in terms of policy objectives, the Forecasting and Policy Analysis System (FPAS), and the policy process. It should be noted that the FPAS is “the organizational framework that provides the regular flow of macroeconomic information to policymakers for their decisions on the policy instrument path” (Al-Mashat et al., 2018, p. 10).

As evidenced by the Dincer-Eichengreen (Table 1) and CBT-IT (Table 2) transparency indices, the NBU’s monetary policy is not sufficiently transparent (the progress is under consideration in Anufrieva and Shapoval, 2019). According to the Dincer-Eichengreen, the transparency index for the NBU scores at 12 out of 15 in 2021 (Table 1). Although the level of transparency is sufficient according to the political and policy transparency criteria, the NBU is challenging to disclose macro models. In addition, there are gaps in giving a comprehensive account of policy deliberations within a reasonable amount of time, in regular informing

on macroeconomic disturbances that affect the policy transmission process with a discussion of past forecast errors and with an explicit account of the contribution of monetary policy in meeting the objectives.

On the other hand, applying the CBT-IT index, the transparency index for the NBU in 2021 scores at 11.45 out of 20 (Table 2). Although the NBU’s monetary policy objectives are clear and accessible on its website, the NBU does not have both adequate monetary policy and macroprudential tools. Moreover, the NBU should regularly publish the loss function values and represent them in monetary policy reports. Regarding transparency about the FPAS, the NBU regularly discloses relevant primary economic data but does not regularly publish alternative scenarios in their monetary policy reports, the exchange rate’s fan charts, and the output gap. It can be taken from the experience of Riksbank, who publishes the forecasting model (Ramses II) as well as the codes on the bank’s website (Adolfson et al., 2013). Despite the demand of academia, the NBU does not see the need to publish the core forecasting model in a working paper, provide the code, and create

TABLE 1 Dincer-Eichengreen transparency index for the NBU, as of 2021

Criteria	Feature	Score
<b>1. Political transparency</b>		<b>3</b>
Prioritization of objectives	There is one primary objective or multiple objectives with explicit priority.	1/1
Quantification of objectives	There is a quantification of the primary objective(s).	1/1
Central bank-government arrangement	NBU is with explicit instrument independence or central bank contract, although possibly subject to an explicit override procedure.	1/1
<b>2. Economic transparency</b>		<b>2</b>
Data availability	The basic economic data about money supply, inflation, GDP, unemployment rate, and capacity utilization is quarterly publicly available.	1/1
Disclosure of macro models	The NBU does not disclose the macroeconomic model(s) it uses for policy analysis.	0/1
Publication of forecasts	The NBU publishes quarterly numerical central bank forecasts for inflation and output for the medium term (one to two years ahead), specifying the assumptions about the policy instrument (conditional or unconditional forecasts).	1/1
<b>3. Procedural transparency</b>		<b>2</b>
Monetary policy strategy or policy rule	The NBU provides an explicit policy rule or strategy that describes its monetary policy framework.	1
Policy deliberations	The NBU gives a comprehensive account of policy deliberations after a substantial lag.	0/1
Voting on instruments	The NBU discloses how each decision on the level of its main operating instrument or target was reached through comprehensive minutes (although not necessarily verbatim or attributed) or explanations.	1/1
<b>4. Policy transparency</b>		<b>3</b>
Announcement of decisions	The decisions about adjustments to the main operating instrument or target are announced on the day of implementation.	1/1
Explanation of decisions	The NBU always provides an explanation when it announces policy decisions, including forwarding-looking assessments.	1/1
Future policy actions	The NBU discloses an explicit policy inclination after every policy meeting or an explicit indication of likely future policy actions (at least quarterly).	1/1
<b>5. Operational transparency</b>		<b>2</b>
Operating target achievement	The NBU evaluates to what extent its main policy operating targets have been achieved, accounting for significant deviations from the target.	1/1
Information on disturbances	The NBU provides information on (unanticipated) macroeconomic disturbances that affect the policy transmission process, but only through short-term forecasts or analysis of current macroeconomic developments (at least quarterly).	0.5/1
Macro objectives achievement	The NBU superficially provides an evaluation of the policy outcome in light of its macroeconomic objectives.	0.5/1
<b>Dincer-Eichengreen index</b>		<b>12/15</b>

Source: author’s calculations, based on Dincer and Eichengreen (2014)

index covered “overall communication practices in a typical decision-making process, not just one particular aspect (such as the publication of economic projections)” (Minegishi & Cournede, 2009, p. 25).

Despite the multi-dimensionality of existing transparency indices, Al-Mashat et al. (2018) highlighted the following limitations of the Dincer-Eichengreen index. First and foremost, the inability of comparing different types of monetary regimes because transparency and communication strategies differ significantly between

central banks with fixed exchange rates or inflation targeting. Secondly, the limitation of distinguishing the transparency between inflation-forecast-targeting countries and without it, as the Dincer-Eichengreen index does not pay enough attention to advanced forms of communication. Thirdly, the index does not reflect whether the communication of monetary and macroprudential policy interactions is transparent. It is essential, as the way monetary policy accommodates financial stability considerations poses significant risks to the credibility of

TABLE 2 CBT-IT index for the NBU, as of 2021

Criteria	Feature	Score
<b>1. Transparency about objectives</b>		<b>2.5</b>
Inflation as a primary objective	Inflation is set as the primary objective such that any other objective (output, etc.) cannot be inconsistent with the primary objective of anchoring inflation and inflation expectations, that can be easily accessible on the NBU's website.	1/1
Inflation target definition	Inflation target defined as a well-defined point target.	1/1
Financial stability vs price stability	The NBU is at least partly responsible for financial stability, but the borderlines between the monetary policy and financial stability tools are unclear.	0.5/1
Output-inflation tradeoff	The NBU does not use a loss function evaluation to show how well it has been doing in managing the short-run output-inflation tradeoff.	0/1
<b>2. Transparency about the FPAS</b>		<b>3.2</b>
Data availability	All series used in producing inflation, macroeconomic and monetary reports are published in a downloadable format, but they do not cover the long period of data.	1/1
Quarterly projection model availability	The NBU does not provide the core model's equations used for policy-making and its coefficients.	0/1
Reaction function/ loss function	The NBU does not publish either the reaction function or the loss function used to compute the interest rate paths (or paths for other instruments when the ELB constrains the policy rate) in their regular projection exercises.	0/1
Publication of projections	The NBU publishes quarterly macroeconomic projections over at least two years, including variables such as inflation, GDP growth, the endogenous interest rate path, and the output gap.	0.8/1
Publication of projections with fan charts	The NBU regularly publishes forecast densities (in inflation report) for inflation, GDP growth, the endogenous interest rate path (fan charts) to communicate forecast uncertainty.	0.6/1
Publication of projections with a methodology for fan charts	The NBU does not explain the underlying methodology for constructing the fan charts in each inflation report.	0/1
Assessment of forecast revisions	The NBU regularly publishes an assessment of forecast revisions (decomposition of forecast changes vis-à-vis the previous forecast) for inflation, GDP growth, and the endogenous interest rate path.	0.6/1
Alternative scenarios	The NBU does not regularly publish alternative scenarios in their monetary policy reports to illustrate key risk(s) in the baseline forecast.	0/1
Financial variables	The NBU publishes historical data on the government bond yield curve and consumer lending rates.	0.2/1
<b>3. Transparency about the policy process</b>		<b>5.75</b>
Press statements	Two hours after the NBU Board ends its monetary policy meeting, at 2 p.m., the NBU puts out a press release (in English) outlining the NBU Board's monetary policy decisions on its official website.	1/1
Press conference	The press conference with the Q&A session is webcasted, and the recording is then made available on the website. The presentations are available in downloadable form in English.	1/1
Meetings with analysts	The NBU presents its regular forecast updates the Q&A session to journalists, analysts, and market participants, and the presentations are available in English.	1/1
Minutes	There is a detailed public account of the policy deliberations and voting results on the main policy instrument, published less than one month after the meeting. Contributions by individual MPC members and votes are not attributed.	0.75/1
Role of staff and policymakers	The ownership of the forecast and its role in the decision-making process is defined clearly in the foreword of the inflation report.	1/0
Forecast performance review	The forecasting performance of the central bank is reviewed at least once a year in the monetary policy reports.	1/0
External evaluation of FPAS	There was no external evaluation of the policy framework and the FPAS in the last 5 years with publicly available results.	0/1
<b>CBT-IT index</b>		<b>11.45/20</b>

Source: author's calculations, based on Al-Mashat et al. (2018)

a web-based front-end for users to modify forecast assumptions. At the same time, the NBU demonstrates a high level of transparency in the decision-making process by publishing press statements and presentations of briefings in English by providing detailed “minutes” with voting results on the key policy rate.

#### 4 Conclusions

Overall, communication is not only an operational task but also a strategic function. By clarifying its actions, the central bank can make the monetary policy easier for target groups to understand. At the same time, building trust is a long process that requires a structured, coherent and following a clear purpose communication policy of the central bank. Although it is sometimes a challenge to decide who the central bank's audience is, communication content and channels should be designed for a specific target audience to be used effectively and efficiently. Diversified communication instruments facilitate ensuring

that monetary policy messages are disseminated to a broad audience and stakeholders. Moreover, central banks should put different emphasis on various aspects of transparency enhancement. Specifically, according to the Dincer-Eichengreen index, the NBU's monetary policy requires disclosing macro models and past forecast errors. Regarding the CBT-IT index, the NBU should make clear how will adjust monetary policy and financial stability tools to achieve the objectives of monetary policy and financial stability. In addition, there is a need to publish the values of the loss function and represent them in a chart. To obtain the perfect score of FPAS of the CBT-IT index, the NBU should publish its core model with the coefficients and code to allow the users to replicate the forecasts. Besides, it's crucial to publish baseline forecasts with fan charts for the output gap and alternative scenarios. Furthermore, an external evaluation of the policy framework and as well FPAS should be carried out at least once every five years. The abovementioned will enable the central bank of Ukraine to strengthen market participants' confidence in monetary policy decisions.

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