Journal of Central Banking Law and Institutions, Vol. 2 No. 1, 2023, pp. 93 - 122
e-ISSN: 2809-9885 – p-ISSN: 2827-7775
https://doi.org/10.21098/jcli.v1i2.15

THE CENTRAL BANK'S POLICY JUSTIFICATION IN MITIGATING CLIMATE CHANGE

Muchammad Chanif Chamdani,[a] Bramanda Sajiwo Santoso[b]
[a]Faculty of Law, Universitas Gadjah Mada, Indonesia
[b]Coordinating Ministry of Politics, Law, and Security, Indonesia
e-mail: muchammad.chanif.c@mail.ugm.ac.id

Submitted: 28 August 2022 - Last revised: 29 January 2023 - Accepted: 31 January 2023

Abstract

In recent years, increasing awareness of the impact of climate change has attracted the attention of central banks in a number of countries. Under their authority, some central banks have started to formulate "green policies." These green policies include a green version of quantitative easing, buying green bonds in order to support the growth of environmentally friendly financial institutions, and imposing restrictions or prohibitions on non-environmentally friendly industry lending by banks. Bank Indonesia itself is starting to explore banking policies that are more environmentally friendly, one of which is by managing financial instruments in a sustainable manner and providing green incentives. This raises unavoidable questions about the legitimacy of Bank Indonesia's promulgation of these environmentally friendly banking policies and the issues of independence, accountability and legitimacy that accompany them. This research found that green finance policies were adopted by Bank Indonesia due to its flexibility and/or independence in deploying various policy instruments, the expansion of Bank Indonesia's mandate to maintain financial system stability, institutional relationships, and involvement in various green financial forums. However, further discussion shows that this expansion of its mandate simultaneously affects the independence of the central bank leading to issues surrounding the accountability and even legitimacy of the central bank.

Keywords: *central bank, climate change, legitimacy*

I. INTRODUCTION

At the 15th International *Bulletin of Monetary Economics and Banking* (BMEB) *Conference* held in September 2021, the Governor of the central bank of Indonesia (Bank Indonesia or BI), Perry Warjiyo, presented four challenges for the central bank in facing a new post-modern civilisation resulting from the coronavirus disease (COVID-19) pandemic. First, Bank Indonesia faced pressure to accelerate economic recovery and nurture the economy to become stronger and more resilient. Second, the central bank sought to accelerate growth of the national digital economy and finance as well as digitalisation across various fields. Third, Bank Indonesia was charged with the acceleration of economic and financial inclusion, especially in micro, small, and medium enterprises (MSMEs) as well as the agricultural sector. Finally, fourth, to respond to the pressure for environmentally friendly policies toward realisation of a green economy and finance.[1]

The green economy is generally thought of as "an economy that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scars."[2] The green economy was initiated as an alternative to the dominant economic model widely practiced today but is now seen as threatening and damaging to the natural environment and in turn human well-being. The transition to a green economy requires a sea change in the production, consumption, and management of resources so that they are more environmentally friendly and sustainable. This change is broad in its scope, starting with the use of renewable energy sources, developing sustainable production models, conservation natural resources. Therefore, this massive structural change requires significant investment.[3] The transformation to a *green economy* is chosen so that a country is able to survive in the face of various population issues and environmental degradation ranging from urbanisation, resource scarcity, and climate change.[4]

Climate change is one of the greatest challenges facing mankind in this century, apart from poverty alleviation.[5] Damage that can be caused by climate change includes: the destruction of biodiversity, function, and structure of environmental ecosystems; increasing scarcity of resources such as clean water and food; increased potential for epidemics and malnutrition; and the recurring damage to infrastructure and disruption of important economic sectors.[6] Referring to the U.S. Federal Reserve Bank (the Fed), climate risk come in the form of risks to economic activity itself (e.g., changes in employment, production, and service provision) and financial risks (e.g., changes in the value of financial assets, the cost or availability of liquidity and credit, access to risk

---

[1] Erwin Haryono, "Empat Tantangan dan Respons Bank Sentral untuk Pemulihan Ekonomi yang Lebih Kuat", *Bank Indonesia*, 2 September 2021, accessed 12 June 2022, https://www.bi.go.id/id/publikasi/ruang-media/news-release/Pages/sp_2322421.aspx.

[2] United Nations Environment Programme, "*Green Economy*", *UN Environment Programme*, accessed 12 June 2022, https://www.unep.org/pt-br/node/23750.

[3] Burcu U¨nu¨var, "Financing the Green Economy" in *Handbooks of Green Economy,* edited by Sevil Acar and Erinc Yeldan, (London, San Diego, Cambridge, and Oxford: Academic Press, 2019), 163-64.

[4] United Nations Environment Programme, "*Why does green economy matter?*", *UN Environment Programme*, accessed 12 June 2022, https://www.unep.org/explore-topics/green-economy/why-does-green-economy-matter.

[5] Andrew Steer, "Forward" in *Climate Change and Development*, edited by Thomas Tanner and Leo Horn-Phathanothai, (London and New York: Routledge, 2014), xviii.

[6] Hans-Otto Pörtner et al., *Climate Change 2022: Impacts, Adaptation and Vulnerability Summary for Policymakers*, (Switzerland: International Panel on Climate Change, 2022) 12 and 19.

mitigation instruments, and operating losses).[7] The Financial Stability Board mentions three climate-related risks, including: (1) physical risk that reduces the value of financial assets and/or increased liabilities; (2) transition risk that stems from the possible adjustment process to a low-carbon economy and the possible impact on the value of financial assets and liabilities; and (3) liability risk that might arise when parties are held liable for losses related to environmental damage that may have been caused by their actions or omissions.[8] The most sever impacts of climate change are estimated to wipe out up to 18% of world GDP by 2050 if the temperature increase of the planet Earth reaches 3.2^{o} celcius.[9] This is not speculation as sticking to business as usual (BAU) where the temperature increase is allowed to reach 2.5^{o} celcius by the end of the 21st century, estimated global financial assets lost was US$24.2 trillion.[10]

Although the predictions and measurements of the economic costs of climate change are still being explored, central banks and financial regulators are aware of the potential impact of climate change on financial stability.[11] Special attention to the problem of climate change can be found in various policies implemented by several central banks in several countries. The European Central Bank (ECB) for example set an action plan to include climate change considerations in its policy framework starting in 2021.[12] The action plan covers a wide range of activities including: (1) macroeconomic modelling and assessment of implications for monetary policy transition; (2) statistical data for climate change risk analysis; (3) disclosures as a requirement for eligibility of green instruments as collateral and asset purchases; (4) enhancement of risk assessment capabilities; (5) collateral framework; and (6) corporate sector asset purchases. Meanwhile, the Bank of England (BoE) has also set a No. of goals and commitments to ensure its financial system is resilient to

---

7 Celso Brunetti, et al., "Climate Change and Financial Stability," FEDS Notes. Washington: Board of Governors of the Federal Reserve System, March 19, 2021, https://doi.org/10.17016/2380-7172.2893.

8 Financial Stability Board, "The Implications of Climate Change for Financial Stability". *The Financial Stability Board*. 23 November 2020 accessed 12 June 2022, https://www.fsb.org/wp-content/uploads/P231120.pdf.

9 Natalie Marchant, "This is How Climate Change Could Impact the Global Economy", *World Economic Forum*, 28 June 2021, accessed 12 June 2022, https://www.weforum.org/agenda/2021/06/impact-climate-change-global-gdp/.

10 Simon Dietz, Alex Bowen, Charlie Dixon, and Philip Gradwell, "'Climate Value at Risk' of Global Financial Assets", *Nature Climate Change* 6, (2016): 676-679, https://doi.org/10.1038/nclimate2972.

11 Pierpaolo Grippa, Jochen Schmittmann, and Felix Suntheim, "Central Banks and Financial Regulators are Starting to Factor in Climate Change", *Finance & Development*. (2019): 26-28.

12 European Central Bank, "ECB Presents Action Plan to Include Climate Change Considerations in its Monetary Policy Strategy", *European Central Bank*, accessed in 12 June 2022, https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210708_1~f104919225.en.html.

climate-related financial risks.[13] This has been conducted by including climate aspects in the supervisory approach to institutions under their authority as well as collaborating with the Climate Financial Risk Forum, which provides guidance to industries related to the climate crisis, encourages climate disclosure, contributes to a coordinated international approach to climate, and communicates best practices by the central banks regarding climate change.[14]

The Reserve Bank of India (RBI) has also considered several initiatives to promote sustainable finance and address climate risk such as integrating climate-related risks into financial stability monitoring, building internal capacity in assessing climate-related risks, increasing awareness and coordination with various stakeholders in the system. finance on climate-related risks and exploring different scenarios for assessing climate-related risks.[15] A No. of other central banks also initiated the establishment of the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) at the "One Place Summit" in Paris in 2017. NGFS has the objective to strengthen the global response to meeting the goals of the Paris agreement and to enhance the role of the financial system in managing risks and mobilizing capital for green and low-carbon investments in the broader context of environmentally sustainable development.[16] As of June 2022, the NGFS membership consisted of 116 members, of which Bank Indonesia (BI) is one.[17]

One of the concerns raised by BI regarding climate change is its impact on monetary and financial system stability.[18] Climate change has been proven to have direct consequences for price stability.[19] Floods and droughts exacerbated by climate change can result in crop failures and affect agricultural output, causing food prices to rise.[20] This is similar to when the El Niño occurred

---

[13] Bank of England, "Climate Change", *Bank of England*, 8 June 2022, accessed in 12 June 2022 https://www.bankofengland.co.uk/climate-change.

[14] *Ibid.*

[15] Shri M. Rajeshwar Rao, "Heed to Heal - Climate Change is the Emerging Financial Risk", *Reserve Bank of India*, 20 September 2021, accessed 1 June 2022, https://www.rbi.org.in/Scripts/BS_SpeechesView.aspx?Id=1127.

[16] Network for Greening the Financial System, "Origin and Purpose", 13 September 2019, *Network for Greening the Financial System*, accessed 1 June 2022, https://www.ngfs.net/en/about-us/governance/origin-and-purpose.

[17] Network for Greening the Financial System, "Membership", 16 June 2022, *Network for Greening the Financial System*, accessed 30 June 2022, https://www.ngfs.net/en/about-us/membership.

[18] Cantika Andika Putri, "Apa Dampak Perubahan Iklim ke Stabilitas Moneter? Ini Kata BI", 18 February 2022, accessed 22 June 2022, https://www.cnbcindonesia.com/market/20220218192928-17-316613/apa-dampak-perubahan-iklim-ke-stabilitas-moneter-ini-kata-bi.

[19] Aziz Durrani, Masyitah Rosmin & Ulrich Volz. "The Role of Central Banks in Scaling Up Sustainable Finance – What Do Monetary Authorities in the Asia-Pacific Region Think?", *Journal of Sustainable Finance & Investment*, DOI: 10.1080/20430795.2020.1715095, 2020: 3.

[20] Ulrich Volz, "On the Role of Central Banks in Enhancing Green Finance", *Inquiry Working Paper* No. 17/01, Geneva: UNEP Inquiry into the Design of a Sustainable Financial System (2017): 9.

in 2008, resulting in the rise of the inflation rate in Indonesia, reaching 9.78 percent. The increase will be much greater when an even stronger El Niño phenomenon hits Indonesia.[21] Economic losses due to climate-change-related impacts have reached IDR 100 trillion per year and are expected to continue to increase exponentially.[22] Moreover, as the government has planned the imposition of a carbon tax as part of climate change mitigation policies, the imposition of the tax without any mitigation from the central bank could also be predicted to increase price levels.[23]

Concern for the impact of climate change that is happening globally along with active discussion on initiatives to mitigate the impact of climate change across various international forums has prompted BI to propound several initiatives to support green economy and finance since 2010. Those initiatives include research, cooperation, development of sustainable financial models, and provision of credit incentives.[24] However, the involvement of the central bank in such policies has created debate, especially regarding the scope of the central bank's mandate. The central bank is a technocratic institution that is not directly elected and strictly carries out the tasks delegated to it by law, which includes ensuring price stability. Therefore, the central bank's involvement in climate change mitigation policies requires a clear legal basis.[25] Going beyond the given mandate could be viewed as a form of activism, possibly damaging the reputation, and threatening the independence and accountability of the central bank.[26]

Bank Indonesia's mandate is governed by Article 7 of Law No. 23 of 1999 on Bank Indonesia (ICB Law 1999), which was enacted to achieve and maintain currency stability. BI's original mandate was then expanded through Law No. 4 of 2023 on Development and Strengthening of The Financial Sector (Development and Strengthening of The Financial Sector Law 2023).

---

[21] Bronson Marpaung, Hermanto Siregar, and Lukytawati Anggraeni, "Analysis of El Niño Impact and the Price of Food Commodities on Inflation", *Jurnal Ekonomi Indonesia* 8 (1), https://doi.org/10.52813/jei.v8i1.11. (2019): 34.

[22] Siti Masitoh and Khomarul Hidayat (ed.), "Perubahan Iklim Ganggu Stabilitas Moneter dan Sistem Keuangan", 9 December 2021, accessed 12 June 2022, https://newssetup.kontan.co.id/news/perubahan-iklim-ganggu-stabilitas-moneter-dan-sistem-keuangan.

[23] Warwick J. McKibbin, Adelle C. Morris, Augustus J. Panton, and Peter J. Wilcoxen. "Climate Change and Monetary Policy: Dealing with Disruption." *Climate and Energy Economics Discussion Paper*. Washington, DC: Brookings Institution, (2017):15-16.

[24] Bank Indonesia. "Bank Indonesia Green Finance Initiative", *Financial Stability Review* 37, (September 2016).

[25] Paul Diggle and Luke Bartholomew, "Climate change and central banks: The case for violating neutrality", CEPR, 12 August 2021, accessed January 2023, https://cepr.org/voxeu/columns/climate-change-and-central-banks-case-violating-neutrality.

[26] See Christina Parajon Skinner. "Central Bank Activism", *Duke Law Journal* 71, no. 2, (2021): 254-255. https://scholarship.law.duke.edu/dlj/vol71/iss2/1.

With that act, Article 7 of ICB Law 1999 regarding BI's mandate is broadened to achieve not only stability of currency, but also to maintain payment system stability, and participate in maintaining financial system stability to support sustainable economic growth. Although BI's mandate was expanded through Development and Strengthening of The Financial Sector Law 2023, it still leaves a question on the legitimacy of BI's involvement in various environmentally sound economic policies over the past 10 years, and in such policies going forward. In addition, this paper will discuss the implications of this involvement, specifically the aspects of independence, accountability, and legitimacy.

II. BANK INDONESIA'S GREEN POLICY

II.A. Development of BI's Green policy

BI's green initiatives can be grouped into six categories research and impact assessment, institutional capacity building, cooperation, and networking, directed credit instruments (credit incentives), development of green finance guidelines (including credit risk management), and reserve management. In 2010, BI proffered six stages for transitioning to a low-carbon economy in order to support a green economy and finance. The green initiatives started with green finance research in 2010 and the signing of a joint decree between Bank Indonesia and the Ministry of the Environment regarding the increasing role of banks in environmental management and conservation.[27] BI also initiated the establishment of the Sustainable Banking and Finance Network (SBFN) in 2012.[28] SBFN is a voluntary community of financial sector regulators, central banks, ministries of finance and the environment, and industry associations from emerging markets that are committed to advancing sustainable finance for national development priorities, deepening financial markets, and stability.[29]

Regarding issuance of policies, BI enacted Bank Indonesia Regulation No. 14/15/PBI/2012 on Asset Quality Assessment for Commercial Banks (PBI 14/15 2012) which replaced Bank Indonesia Regulation No. 7/2/PBI/2005 on Asset Quality Assessment for Commercial Banks (PBI 7 /2/0225). Previous regulation, PBI 7/2/0225, required banks to assess the quality of assets in the provision of funds or lending,[30] one of which is the efforts made by debtors

[27] Bank Indonesia, *Kajian Stabilitas Keuangan* 38, (2022): 73.

[28] Bank Indonesia. "Bank Indonesia Green Finance".

[29] Sustainable Banking and Finance Network, "About SBFN", accessed 12 June 2022, https://www.sbfnetwork.org/about-sbf-network/.

[30] Indonesia, Bank Indonesia Regulation No. 7/2/PBI/2005 on Assessment of Asset Quality for Commercial Banks (hereinafter PBI 7/2/2005), Art. 4 paragraph (1).

in the context of preserving the environment.[31] PBI 14/15/2012 stipulates that assessment of credit quality includes measuring a business's prospect component, one of the components of which is efforts made by the debtor in the context of preserving the environment.[32] This guideline is in line with the precautionary principle that must be adhered to by banks, including by conducting an environmental impact analyses (EIA)[33] and taking into account the preservation of the natural environment.[34]

In its development of green finance initiatives, BI focused on strengthening internal controls and processes, acting as a role model for financial institutions in making a green transition. From an institutional perspective, in 2019, Bank Indonesia joined the Network of Central Banks and Supervisors for Greening the Financial System (NGFS).[35] The NGFS is a group of central bankers and prudential regulatory authorities willing, on a voluntary basis, to exchange experiences, share best practices, contribute to the development of environmental and climate risk management in the financial sector, and to mobilise mainstream finance stakeholders to support the transition to a sustainable economy. The purpose of this organisation is to define, promote and contribute to the development of best practices for application within and outside the NGFS member organisations and to undertake or commission analytical work on green finance.[36] BI's involvement in the NGFS is in the form of developing an analytical framework in which to conduct risk assessments related to the environment and its impact and transmission on the macroeconomy and financial system, and developing strategies to encourage an increase in the share of green finance in the financial system, including strengthening the role of central banks and supervisors as institutions in supporting green finance, such as developing green financial instruments and placing foreign exchange reserves in green financial instruments.[37]

In terms of policies, particularly in the macroprudential scope, BI has issued several policies to support the green economy. Through Bank Indonesia Regulation No. 21/13/PBI/2019 on Amendments to Bank Indonesia Regulation No. 20/8/PBI/2018 on Loan to Value for Property Loans, Financing to Value Ratio for Property Financing, and Advances for Motor

---

[31] *Ibid*., Art. 11 paragraph (1).

[32] Indonesia, Bank Indonesia Regulation No. 14/15/PBI/2012 on Assessment of Asset Quality for Commercial Banks (hereinafter PBI 14/15/2012), Art. 11 paragraph (1).

[33] See Indonesia, Law No. 7 of 1992 on Banking (hereinafter Banking Law 1992) and Indonesia, Law No. 10 of 1998 on Amendment of Law No. 7 of 1992 on Banking (hereinafter Banking Law 1998).

[34] See Indonesia, Law No. 21 of 1998 on Sharia Banking (hereinafter Sharia Banking Law 1998).

[35] Ibid.

[36] The Network of Central Banks and Supervisors for Greening the Financial System, Charter of the Central Banks and Supervisors Network for Greening the Financial System, Art. 1.

[37] Bank Indonesia, *Laporan Perekonomian Indonesia*, (Jakarta: Bank Indonesia, 2019), 125.

Vehicle Loans or Financing (PBI 21 /13 2019) it is stipulated that there is an easing of the credit or financing ratio and advances for environmentally friendly properties and vehicles. PBI 21/13/2019 was issued mainly to strengthen the banking intermediation function, where there is still room for policy improvement, and to continue to encourage economic growth amidst macroeconomic stability and well-maintained financial systems. In addition, PBI 21/13/2019 also supports sustainable development by supporting a green economy, done through encouraging the creation of environmentally-sound financing (green financing) through among other methods credit arrangements and property financing and down payment relief for motor vehicles, especially those that meet environmentally friendly standards.

The regulation loosens the LTV ratio for property loans and the FTV ratio for sharia-based property financing that is environmentally sound at a maximum of plus 5% of the FTV and LTV ratio for property in general.[38] In addition, PBI 21/13/2019 lowers the minimum down payment for credit on environmentally sound motor vehicle financing to 5% of the purchase price of motorised vehicles.[39] In line with that, the second amendment to PBI 20/8/2018 again lowers the minimum down payment for environmentally-sound motor vehicle financing, specifically for banks that meet the percentage requirements for the ratio of non-performing loans/financing on a gross basis and the ratio of loans or financing for non-performing motor vehicle loans on a net basis, to 0%.[40]

However, through a third amendment of PBI 20/8/2018, the LTV and FTV ratios of property ownership and advances for loans and motor financing were again changed. However, this change does not distinguish between houses and motor vehicles that are environmentally-sound and those that are not. The third amendment to PBI 20/8/2018 which is regulated by Bank Indonesia Regulation No. 23/2/2021 on the Third Amendment to Bank Indonesia Regulation No. 20/8/2018 on Loan To Value for Property Loans, Financing To Value for Property Financing, and Advances for Motor Vehicle Loans or Financing (PBI 23/2/2021) loosens and equalises the LTV and FTV ratios for all types of property as well as minimum down payments for all types of vehicles, whether environmentally-friendly or not.

---

[38] Indonesia, Bank of Indonesia Regulation No. 21/13/PBI/2019 on Amendment of Bank of Indonesia Regulation No. 20/8/PBI/2018 on Loan to Value Ratio for Property Loans, Financing to Value Ratio for Property Financing, and Down Payments for Motor Vehicle Loans or Financing (hereinafter PBI 21/13/2019), Art. 11A.

[39] *Ibid.* Art. 23A.

[40] Indonesia, Bank of Indonesia Regulation No. 22/13/PBI/2020 on Second Amendment of Bank of Indonesia Regulation No. 20/8/PBI/2018 on Loan to Value Ratio for Property Loans, Financing to Value Ratio for Property Financing, and Down Payments for Motor Vehicle Loans or Financing (hereinafter PBI 22/13/2020), Art. 23A.

This policy is based on supporting the overall national economic recovery, which requires accommodative macroprudential policies to encourage the banking sector to carry out a balanced and quality intermediation function, though among other things financing for property and motor vehicles. In his explanation, the chairman of BI stated that although bank credit and financing are still in the process of recovering, the interest of the household sector to invest in financial instruments has begun to increase, including commercial investment in the property sector. Because the property sector is one of the potential sectors with forward and backward linkage and high employment absorption, the sector needs to be accelerated by restructuring the credit and financing ratios for property and motor vehicles to support recovery, which in turn will enhance the performance of the national economy.[41]

Apart from institutional and macroprudential policies, BI as the monetary policymaking authority, has begun to adopt the Sustainable and Responsible Investment Framework in managing foreign exchange, and has gradually increased its holdings of sustainable bonds, recently reaching US$5.8 billion.[42] That amount is equivalent to 5% of the reserves managed by BI.[43] BI also supports the development of Sustainable and Green Finance (SGF), which exercised by addressing product development, pricing, and market players as well as coordination and communication between financial market authorities (Ministry of Finance, FSA, and BI).[44] In this regard, the financial market plays a strategic role as a source of funding for economic activities, a medium for deploying monetary and fiscal policy, as well as financial system stability.[45] As for payment system policy, Bank Indonesia encourages the acceleration of the digital financial economy that is seen as contributing to environmental sustainability.[46]

---

[41] Bank Indonesia, "*Frequently Asked Questions (FAQ)* Bank of Indonesia Regulation No. 23/2/PBI/2021 on Third Amendment of Bank of Indonesia Regulation No. 20/8/PBI/2018 on Loan to Value Ratio for Property Loans, Financing to Value Ratio for Property Financing, and Down Payments for Motor Vehicle Loans or Financing", accessed in June 2022, https://www.bi.go.id/id/publikasi/peraturan/Documents/FAQ_PBI_230221.pdf.

[42] Bank Indonesia, *Kajian Stabilitas,* and Onny Widjanarko, "Pembiayaan Berwawasan Lingkungan Sebagai Alternatif Dorong Pemulihan Ekonomi Nasional", *Bank Indonesia*, 25 November 2020, accessed 12 June 2022, https://www.bi.go.id/id/publikasi/ruang-media/news-release/Pages/Pembiayaan-Berwawasan-Lingkungan-sebagai-Alternatif-Dorong-Pemulihan-Ekonom-Nasional.aspx.

[43] Antara, "Bank Indonesia: Lima Persen Cadangan Devisa Dialokasikan untuk Obligasi Berkelanjutan", *Tempo.co*, 2 November 2022, https://bisnis.tempo.co/read/1652264/bank-indonesia-lima-persen-cadangan-devisa-dialokasikan-untuk-obligasi-berkelanjutan, accessed January 2023.

[44] Bank Indonesia, *Blueprint Pengembangan Pasar Uang 2025 Bank Indonesia: Membangun Pasar Uang Modern dan Maju di Era Digital* (Jakarta: Bank Indonesia, 2020), 54.

[45] Tim Penulis, *Strategi Nasional Pengembangan dan Pendalaman Pasar Keuangan Tahun 2018-2024*, (Jakarta: Kementerian Keuangan, Bank Indonesia, and Otoritas Jasa Keuangan, 2018), xvii.

[46] Widjanarko, "Pembiayaan Berwawasan Lingkungan".

In addition to the aforementioned measures, BI plans to formulate a Green Bank Indonesia Policy and Institutional Framework to support the national economic transition towards a carbon-neutral economy that is just, orderly, and affordable as well as a financial system that is resilient in facing climate-related risks. Regarding institutional capacity, BI held a Workshop on Sustainable Finance and Climate Change Impact in 2021, supported by Standard Chartered and ICMA. Efforts to strengthen cooperation and coordination were further carried out with BI's involvement in the G20 Sustainable Finance Working Group (SFWG) to achieve the G20 Sustainable Finance Roadmap agreed at the G20 Italy Presidency 2021. Moreover, BI initiated the development of guidelines and tools for measuring corporate carbon emissions in collaboration with the Coordinating Ministry for Maritime Affairs and Investment (Kemenkomarves) and the Ministry of Environment and Forestry (KLHK), as well as conducting research on the impact of climate change on Indonesian banks with the FSA and the Deposit Insurance Corporation.[47]

BI is also planning a green financial transition in three stages which are, the strengthening phase (2026-2030), the improvement phase (2031-2059), and the steady stage (>2060). During the strengthening phase, BI will focus on strengthening policies to accelerate carbon emission reduction through increasing the bank's green credit portfolio in furtherance of meeting the 2030 national carbon emission reduction target. At the improvement phase, BI will formulate various policies targeting the achievement of banking sector carbon emissions in accordance with the Paris Agreement. Lastly, at the steady stage, BI will strengthen its policies to support the achievement of the 2060 Carbon Neutral targets, when the banking sector has reached carbon neutrality in its activities.[48]

The measures taken by BI, particularly in response to climate change, such as developing research, analytical frameworks, and guidelines for mitigating climate change, will prove very useful for the financial sector. However, there are several challenges for increasing the awareness of financial sector institutions of climate change mitigation efforts. Although BI's regulation through PBI 14/15 2012 includes efforts to protect the environment as a component of credit quality assessment, the challenges in awareness are laid bare by the relatively poor performance of Indonesia's Environment Credit Risk Management (ECRM).[49] One of the reasons for this is that in practice, banks only check

[47] Bank Indonesia, *Kajian Stabilitas Keuangan,* 84.

[48] *Ibid*., 85.

[49] Hu Mengze and Li Wei, "A Comparative Study on Environment Credit Risk Management of Commercial Banks in the Asia-Pacific Region", *Business Strategy and the Environment* 24, (2015): 170, DOI: 10.1002/bse.1810.

whether a borrower has a valid environmental impact assessment (such as UKL-UPL or AMDAL) permit without conducting further environmental risk mitigation analysis.[50] Most banks also do not regularly issue environmental and social governance (ESG) lending policies for high-risk sectors ,while FSA supervision of the integration of ESG into bank's risk management is still lacking.[51] In addition, although BI has issued regulations easing credit limits and financing for environmentally sound properties, in practice, developers are not fully concerned about green properties or green building. Therefore, this is an obstacle for the development of green property which is still low in Indonesia and demonstrates the limits on BI's influence in transitioning to a green finance economy.[52]

II.B. Institutional influence

The extent to which the central bank adopts a more active approach to support the government's sustainability goals remains ultimately a political decision,[53] and often arises from government influence. Although the ICB Law 1999 affirms that BI is an independent state institution that is free from interference from the government and/or other parties, the regulations that open up these opportunities also pave the way for increased interaction between the central bank and the government. The institutional relationship between BI and the government in the form of consultative coordination in the context of establishing national economic policies[54] can be an entry point for the integration of environmentally sound objectives in the monetary and macroprudential sectors.

At the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) in 2015, the Indonesian government stated its commitment to reducing greenhouse gas emissions by 29% under a business as usual (BAU) model by 2030 and up to 41% with international support.[55] The commitment of the Indonesian government

---

[50] Ulrich Volz, *Towards a Sustainable Financial System in Indonesia*, UNEP, ASrIA, and IFC (April 2015): 22.

[51] Abidah B. Setyowati, "Governing sustainable finance: insights from Indonesia", *Climate Policy*, (2020): 8, DOI: 10.1080/14693062.2020.1858741.

[52] M. Syahran W. Lubis, "Pengembang Masih Abaikan Properti Hijau, Terancam Raksasa Tidur", *Bisnis Indonesia*, (25 February 2022), https://bisnisindonesia.id/article/pengembang-masih-abaikan-properti-hijau-terancam-raksasa-tidur, accessed 12 January 2023.

[53] Simon Dikau and Ulrich Volz, "Central Bank Mandates, Sustainability Objectives and the Promotion of Green Finance". *Ecological Economics* 184, (2021): 19, 10.1016/j.ecolecon.2021.107022.

[54] Bank Indonesia, "Governance Process". *Bank Indonesia*, accessed 23, August 2022 https://www.bi.go.id/id/about-bi/profile/governance/process.aspx.

[55] Nur Masripatin, Emma Rachmawaty, Yulia Suryanti, Hany Setyawan, M. Farid, and Nur Iskandar. *NDC (Nationally Determined Contribution) Implementation Strategy*. Jakarta: Ministry of Environment and Forestry. (2017), 1.

was confirmed through the ratification of the Paris Agreement in 2016, one component of which was to limit the rate of increase in the global average temperature to below 2^{o} Celsius and continue efforts to limit the increases in temperature to 1.5^{o} Celsius.[56] Fulfilment of these commitments requires funds reaching 3,461 trillion Rupiah,[57] of which the government and the financial services sector play an important role in allocating and mobilizing climate change financing.[58]

That commitment also encourages the government to develop green financing instruments to address climate change. So far, there are several potential or recently introduced climate change funding instruments, both public and private, including green planning and budgeting, trust funds, green bonds, green sukuk, green lending, private equity, and investment banking.[59] In issuing climate change funding instruments, especially green bonds and green sukuk, the government is required to consult with Bank Indonesia.[60] Referring to Bank Indonesia Regulation No. 10/13/PBI/2008 on Auction and Administration of Government Securities, Bank Indonesia assists the government in managing state securities by providing input for the issuance of state securities including: the preparation of provisions and requirements for issuance of state securities; act as auction agent in the issuance of state securities on the primary market; and administering auctions of state securities.[61]

BI's support for Indonesia's climate commitment is also the reason for Bank Indonesia's joining the NGFS in 2019. The Governor of Bank Indonesia, Perry Warjiyo, revealed that BI can contribute to the development of an analytical framework related to climate risk assessment by integrating climate-related risks into stability monitoring. financial systems, measuring the impact of climate change, and formulating appropriate policies to minimise environmental risks. The focus of Bank Indonesia's contribution to the NGFS covers the macro financial aspects and scaling up of green finance, which is seen as in line with Bank Indonesia's mandate.[62]

---

[56] Paris Agreement, Art. 2 paragraph (1).

[57] Eka Hendra Permana et al. *Public Funding for Indonesia's Climate Change Control 2016-2018,* (Jakarta: Fiscal Policy Agency Ministry of Finance, 2019), 20.

[58] *Ibid.*, 27.

[59] *Ibid.*, 1 and 28.

[60] See Indonesia, Law No. 24 of 2002 on Government Bonds Law (hereinafter Government Bonds Law 2002), Art. 6 and Indonesia, Law No. 10 of 2008 on State Sharia Securities Law (hereinafter State Sharia Securities Law 2008), Art. 7 paragraph 1.

[61] Indonesia, Bank Indonesia Regulation No. 10/13/PBI/2008 on Auction and Administration of State Securities, Art. 2.

[62] Rina Anggraeni, "BI Officially Becomes a Member of the Network for Greening the Financial System". *SINDOnews.com*, 11 November 2019, accessed 24 August 2022, https://ekbis.sindonews.com/berita/1457619/178/bi-resmi-jadi-member-network-for-greening-the-financial-system.

In addition, through various international forums and organizations such as the G20 and the Bank of International Settlement (BIS), ideas for the green economy and finance, especially in the monetary and macroprudential areas, continue to be discussed and strengthened among members. For example, in the Third G20 Finance Ministers and Central Bank Governors Meeting on July 16, 2022, finance ministers and central bank governors of G20 member countries agreed to support the implementation of the latest Financial Stability Board (FSB) Roadmap in addressing climate-related financial risks that complement G20 Sustainable Finance Roadmap.[63] At this meeting. Bank Indonesia expressed its support for the Asian Green Bond Fund launched by BIS. The initiative to establish the Asian Green Bond Fund is a commitment by central banks in the Asia and Pacific region to provide alternative green financial instruments, which is also in line with one of the priority agenda items of the financial pathway in the Indonesian Presidency at the G20 2022.[64]

III. LEGITIMACY OF BANK INDONESIA'S INVOLVEMENT AND POLICIES FOR CLIMATE CHANGE MITIGATION

III.A. Legal basis

In practice, instruments used by the central bank to encourage and accelerate green investment can simply be variations on traditional monetary instruments or even unconventional monetary policies.[65] Therefore, BI's initiatives in responding to climate change issues can be divided into: (1) reacting to climate change; (2) raising awareness of climate change risks; and (3) proactively mitigating climate change.[66] The division into these three categories also shows the extent to which BI's responses are within the limits of its mandate. First, reacting to climate change measures includes protecting central banks' balance sheets and preserving their ability to deliver on their price stability mandate in the face of materialising of climate change risks, assess the impact of climate change on the economy, financial markets, and the monetary transmission mechanism, incorporate climate change into their analytical toolkits, and

---

[63] "G20 Chair's Summary: Third G20 Finance Ministers and Central Bank Governors Meeting". *G20 Indonesia*. 16 July 2022, accessed 24 August 2022, https://g20.org/g20-chairs-summary-third-g20-finance-ministers-and-central-bank-governors-meeting/.

[64] Erwin Haryono. "Bank Indonesia Supports the Presence of the Asian Green Bond Fund". *Bank Indonesia*. 25 February 2022, accessed 24 August 2022, https://www.bi.go.id/id/publikasi/ruang-media/news-release/Pages/sp_246622.aspx.

[65] Volz, "On the Role of Central Banks", 14.

[66] Lena Boneva, Gianluigi Ferrucci, and Francesco Paolo Mongelli, "To Be or Not to be "Green": How Can Monetary Policy React to Climate Change?", ECB Occasional Paper Series No 285, (November 2021): 13.

develop monetary policy strategies that are resistant to climate change. Therefore, this first category is generally regarded as supporting central banks' price stability mandate and, because of that, does not raise concerns about legitimacy or overreach.[67]

Second, addressing climate risks include measures aimed at first raising awareness of climate risks. This action could also be taken to help promote green finance and sustainable growth without the active use of balance sheets by central banks.[68] Third, proactively taking action to mitigate climate change, including actions to proactively mitigate climate change and promote the transition to a low-carbon-emission economy, including through the active use of central bank balance sheets. Some of the actions that fall into this last category can be considered controversial surrounding the scope of the central bank's mandate and are therefore subject to several compromises.[69] The categorization of BI's actions and responses regarding climate change and the green economy can be seen in the following table.

Table 1.
BI's actions in addressing climate change and promoting green economy and finance

Reacting to Climate Change	Raising Awareness of Climate Risks	Proactively Mitigating Climate Change
• green finance research • developing an analytical framework to conduct risk assessments related to the environment and its impact and transmission on the macroeconomy and financial system • formulating a Green Bank Indonesia Policy and Institutional Framework • developing guidelines and tools for measuring corporate carbon emissions in collaboration with institutions	• initiating the establishment of the Sustainable Banking and Finance Network (SBFN) • BI regulations to measure the business prospect component which includes preserving the environment • joining the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) • BI regulations regarding LTV and FTV to property and vehicle that environmentally friendly • encouraging the acceleration of the digital financial economy that contributes to environmental sustainability • supporting the development of Sustainable and Green Finance (SGF) • involvement in the G20 Sustainable Finance Working Group (SFWG)	• adopting the Sustainable and Responsible Investment (SRI) Framework in managing foreign exchange

[67] *Ibid.*
[68] *Ibid.*, 15.
[69] *Ibid.*, 16.

Furthermore, BI's involvement, whether through research, policy publication, or membership in international forums promoting green economy and finance, cannot occur without a legal basis that provides the authority to take such actions. Law No. 23 of 1999 on Bank Indonesia (ICB Law 1999), established a single objective for Bank Indonesia, namely, to achieve and maintain stability in the value of the Rupiah. The stability of the value of the Rupiah is the stability of the value of the Rupiah against goods and services which is reflected in the development of the inflation rate and the stability of the currencies of other countries which is reflected in the development of the exchange rate of the Rupiah against foreign currencies.[70] In order to achieve this objective, Article 8 of the ICB Law 1999 three mandates of Bank Indonesia, namely: establishing and implementing monetary policy; regulating and maintaining the smooth running of the payment system; and regulating and supervising banks. However, the changes in Article 7 paragraph (2) of the 2004 ICB Law stipulate that the implementation of the mandate through the issuance of various monetary policies must be carried out in a sustainable, consistent, and transparent manner, and must consider the general government policies on the economy. BI's obligation to consider general government policies for the economic sector can be considered as support for the government's economic objectives or policy goals. As a result of this interpretation, this provision can potentially lead to implicit sustainability objectives as part of BI's existing mandate.[71]

In addition, Law No. 21 of 2011 on the Financial Services Authority (the FSA Law) became the basis for the shift in the task of regulating and supervising Banks from Bank Indonesia to the Financial Services Authority (FSA). The existence of the FSA law makes institutional regulation and oversight, health, prudential aspects, and bank inspections within the scope of the micro prudential regulation and supervision the authority of the FSA, while macroprudential regulation and supervision outside the scope of the FSA remains the authority of Bank Indonesia.[72] The FSA Law also mandates the establishment of the Financial System Stability Coordination Forum (CFFSS) consisting of the Minister of Finance, the Governor of Bank Indonesia, the Chairman of the Financial Services Authority, and the Deposit Insurance Corporation. CFFSS determines policy and implements measures to maintain financial system stability in order to prevent and/or address crises in the financial system in accordance with their respective authority.[73]

---

[70] ICB Law 1999, Explanation on Art. 7.

[71] Dikau and Volz, "Central Bank Mandates", 2-3.

[72] Indonesia, Law No. 21 of 2011 on Financial Services Authority (hereinafter FSA Law 2011), Explanation of Art. 7.

[73] *Ibid.*, Art. 45.

In 2016, the government enacted the 2016 Financial Crisis Prevention and Management Law (Financial Crisis Prevention and Management Law 2016) that expanded and confirmed the then-existing scope of BI's mandate in the macroprudential sector, aiming to prevent and maintain financial system stability. Expansion of BI's mandate cannot be separated from the global financial crisis in 2008-2009, which was triggered by unstable economic conditions and an asset bubble that prompted rapid credit expansion, inflated asset prices (especially real property), and high debt acceleration. While generally economic expansion is seen as positive, this financial acceleration had implications for the economic cycle that led to the global financial crisis. Stability of prices and exchange rates is seen as insufficient to prevent a system-wide financial crisis.[74] Therefore, macroprudential policies are needed, among other measures, to prevent the boom-to-bust of the credit supply and liquidity that can and did lead to economic instability.[75] Recently, through Development and Strengthening of The Financial Sector Law 2023, government expanded BI's mandate by adding maintain payment system stability and participate in maintaining financial system stability in order to support sustainable economic growth as its objectives. The expansion of this mandate has often become the basis for BI's various activities that include sustainable targets, namely, to prevent another financial crisis due to the impact of climate change.

Besides the provisions that open opportunities for the integration of sustainable targets as part of the policies and even mandates of BI, several provisions in other regulations also open opportunities for interaction between the government and Bank Indonesia. First, Article 21 of Law No. 17 of 2003 on State Finances (the SF Law 2003) stipulates that the central government and the central bank shall coordinate in determining and implementing fiscal and monetary policies. Second, the Financial System Crisis Prevention and Management Law 2016, a Financial System Stability Committee (FSSC) was formed to replace the CFFSS. Members of the FSSC consisting of the Minister of Finance, Governor of Bank Indonesia, Chairman of the Financial Services Authority, and the Deposit Insurance Corporation. They jointly are tasked with coordinating in the context of monitoring and maintaining financial system stability; handle financial system crises; and handle systemic bank problems, both in conditions of normal financial system stability and financial system crisis conditions.[76] As a forum, the FSSC establishes criteria

[74] Solikin M. Juhro. *Introduction to Central Banking Theory and Policy*. Jakarta: Rajagrafindo Persada. (2020), 4-5.

[75] Perry Warjiyo and Solikin M. Juhro, *Central Bank Policy: Theory and Practice*. Jakarta: Rajawali Press. (2016), 604.

[76] See Indonesia, Law No. 9 of 2016 on Financial System Crisis Prevention and Management (hereinafter Financial System Crisis Prevention and Management Law 2016), Art. 5.

and indicators: measuring financial system stability; assessing the condition of financial system stability; establishing coordinated measures to prevent financial system crises; and recommending steps to deal with financial system crises.[77] Based on the provisions stipulated in those two laws, the role of BI is not only to achieve and maintain the stability of the Rupiah's value, but also to participate in maintaining the stability of the overall financial system. Thus, normatively, there are provisions that open opportunities for the inclusion of sustainability goals in the mandate of BI and through this coordination and joint forum, it is very possible for the government and BI to enter into agreements and build synergies in dealing with the impacts of climate change.

III.B. Further discussion

a. On Independence

The presence of institutional influence raises questions about the independence of BI when carrying out its mandate. On the other hand, changes or expansion of the role and instruments of central banks, as observed in the policies of central banks when facing the crises, can muddy the waters of the boundaries and responsibilities of monetary policy and can contribute to raising questions about central bank independence.[78] Central bank independence, along with an explicit mandate to maintain price stability, is needed to produce a monetary policy that can guarantee price stability.[79] The independence of the central bank is also believed to lower and stabilise inflation, encouraging long-term economic growth and reducing the necessity of budget deficits.[80]

Conceptually, there are two key dimensions related to the independence of the central bank, namely the institutional characteristics that protect the central bank from political influence in determining its policy objectives and aspects that allow the central bank to freely implement policies for achieving monetary policy objectives.[81] Furthermore, there are several types of central bank independence, namely financial independence, goal independence, instrument independence, and personal independence.[82] The goal independence basically includes the broad definition of monetary goals, including not only the choice between price and output stability but also the timeline for of achievement,

---

[77] *Ibid.*, Art. 6.

[78] Rodolfo Dall'Orto Mas, Benjamin Vonessen, Christian Fehlker, & Katrin Arnold, "The Case for Central Bank Independence", *ECB Occasional Paper Series* No 248, (October 2020): 21.

[79] See Sylvester C.W. Eijffinger and Jakob De Haan, *The Political Economy of Central Bank Independence*, (Princeton: International Finance Section Department of Economics Princeton University, 1996): 1.

[80] Warjiyo and Juhro, *Central Bank Policy,* 471.

[81] Carl E. Walsh. "Central Bank Independence", in *Monetary Economics*, edited by SN Durlauf and LE Blume (London: Palgrave Macmillan, 2010), 22.

[82] Warjiyo and Juhro, *Central Bank Policy,* 449-454.

the indicators used to measure achievement, the target values set, and escape clauses.[83] Meanwhile, the instrument of independence is the ability of the central bank to set its operational policy targets without government intervention.[84]

However, the concept of central bank independence post-global-financial-crisis has become a topic of discussion among academics and central bankers. In a financial crisis, loans can represent a form of government support for financial institutions that is threatened by failure with systemic consequences. Loans and bailouts are fiscal decisions that are subject to political oversight or input. Aside from these concerns, the responses of several central banks such as the Fed, Bank of England, and ECB to the crisis, included fiscal decisions and extensive cooperation between formally independent central banks and their government partners. And as consequence of the crisis experience, central bank governance principles have shifted away from central bank independence to emphasize goal setting, transparency, and accountability.[85] Studies in developed economies show that political independence–freedom from the government's potential to influence the goals or personnel of the central bank–does not appear to be very important for inflation control. In this sense, political dependence can make it easier for countries to meet their inflation targets. Moreover, many of new central bank responsibilities require greater cooperation with various institutions, including legislative and executive bodies.[86]

In the case of Indonesia, although BI is authorised to set and implement monetary policy, BI must pay attention to the inflation rate target set by the government.[87] Therefore, BI cannot be said to have total independence.[88] On the one hand, the law provides flexibility for BI in determining and implementing instruments that can be used for monetary control, including but not limited to open market operations, setting discount rates, setting minimum statutory reserves, and credit or financing arrangements.[89] The expansion of BI's mandate to maintain financial system stability accompanied by flexibility in determining and assessing indicators of financial system stability and discretionary policies that can be taken, becoming an entry point for (unconventional)

---

83 *Ibid.*, 450.

84 *Ibid.*, 452.

85 Paul Wachtel & Mario I. Bléjer, "A Fresh Look at Central Bank Independence: Origins and Prospects", *Working papers*, Leonard N. Stern School of Business Department of Economics, (2019): 118-119.

86 Ed Balls, James Howat, & Anna Stansbury, "Central Bank Independence Revisited: After the financial crisis, what should a model central bank look like?", *M-RCBG Associate Working Paper* No. 87, (2018): 56.

87 ICB Law 2004, Art. 10 paragraph (1) and Its Explanation.

88 Warjiyo and Juhro, *Central Bank Policy,* 481.

89 See Juhro. *Introduction to Central Banking,* 52 and ICB Law 1999, Art. 10.

macroprudential and monetary policies that are environmentally sound, such as special incentives for LTV and FTV for environmentally friendly property and vehicles and SRI-based foreign exchange management. On the other hand, the expansion of the mandate also directs the central bank to operate in the space where the government's (green) political agendas exist, which then raises questions about BI's political independence. Therefore, further discussion regarding this question is about accountability and legitimacy.

b. On accountability and legitimacy

As a public institution in a democratic system, the central bank must be truly responsible for achieving the mandates assigned to it, responsive to the public and its elected representatives, and transparent in its policymaking.[90] Therefore, BI must be able to account for and explain to the public the policy choices taken.[91] Accountability refers to an actor's obligation to explain and justify his actions to those influenced and the power to override the principal, in the event of dissatisfaction with the agent's performance.[92] The rationale behind holding central banks accountable goes beyond policy efficacy benefits. The central bank has extraordinary powers in setting short-term interest rates or the money supply. Central bank decisions will also affect people and businesses located in the jurisdictions in which they operate (and sometimes even outside). Accountability therefore imposes constraints on how central banks exercise their independence and, most importantly, it is a means of reducing the democratic deficits that originate when they are made independent.[93]

As outlined at the beginning of this paper, the central bank's active involvement in promoting a green economy and using monetary instruments to mitigate climate change raises several questions. There are several risks when the central bank actively exceeds its legally derived mandate. First, there is a potential for conflicting objectives in which central banks will run into problems if they are supposed to achieve too many goals but have too few tools to do so. Second, there is a danger that too much power may be extended to institutions with limited accountability to the public. Making policy decisions that go beyond its mandate might increase public criticism, undermining the

[90] Ben S. Bernanke. "Central Bank Independence, Transparency, and Accountability". *Board of Governors of The Federal Reserve System*, 25th May 2010, accessed 25 August 2022, https://www.federalreserve.gov/newsevents/speech/bernanke20100525a.htm.

[91] Warjiyo and Juhro, *Central Bank Policy,* 455.

[92] Eugénia C. Heldt and Tony Müller. "Bringing Independence and Accountability Together: Mission Impossible for the European Central Bank?". *Journal of European Integration*, (2021): 4, 10.1080/07036337.2021.2005590.

[93] Mas, Vonessen, Fehlker and Arnold, "The Case for Central Bank", 18.

institution's legitimacy.[94] Third, there is a potential for internal resistance within the central bank. The current generation of central banks could have been trained to think in terms of a framework that leaves little room for goals other than macroeconomics and perhaps financial stability. Therefore, it might be counterproductive to demand and expect the central bank community to become a jack of all trades and solve the world's environmental problems.[95]

As for conflicting objectives, there are indeed concerns that promoting certain sectors such as the green economy could conflict with other central bank goals, including financial stability[96] or even price stability.[97] Furthermore, the extent to which central banks should use the tools at their disposal to play a proactive role to promote green investment and remove incentives for brown investment is still heavily debated. One of the debates over the central bank's active involvement in supporting green investment over brown investment includes market neutrality. Market neutrality is the principle of an open market economy with free competition and favouring an efficient allocation of resources.[98] This principle guides the implementation of the ECB's private sector asset purchase program.[99] In the case of BI's green credit incentives, PBI 23/2/PBI/2021, relaxed the provisions for down payment for motor vehicle loans to a minimum of 0% for all types of new motorised vehicles and loosened the LTV and FTV ratio for housing loans to a maximum of 100% for all types property, include environmentally sound vehicles and property. This policy was adopted to encourage credit growth and is part of the FSSC's policy synergy measures in the Integrated Policy Package for Increasing Business Financing in the context of Accelerating Economic Recovery.[100]

The determination of the LTV and FTV ratios as one of BI's macroprudential instruments aims to manage aggregate risk over time (procyclicality)[101] by

94 Dikau and Volz, "Central Bank Mandates", 19.

95 Volz, "On the Role of Central Banks", 19.

96 *Ibid.*, 18.

97 Jens Weidmann, "Combating climate change – What central banks can and cannot do", Speech at the European Banking Congress, (20 November 2020), https://www.bundesbank.de/en/press/speeches/combating-climate-change-what-central-banks-can-and-cannot-do-851528, accessed 14 January 2023.

98 Isabel Schnabel, "From green neglect to green dominance?", (3 March 2021), https://www.ecb.europa.eu/press/key/date/2021/html/ecb.sp210303_1_annex~3c03f9a09c.en.pdf, accessed 17 January 2023.

99 Isabel Schnabel, "From market neutrality to market efficiency", (14 June 2021), https://www.ecb.europa.eu/press/key/date/2021/html/ecb.sp210614~162bd7c253.en.html, accessed 12 January 2023.

100 Erwin Haryono. "BI Terbitkan Ketentuan Pelonggaran LTV/FTV dan Uang Muka". *Bank Indonesia*, 2 March 2021, accessed 24 August 2022, https://www.bi.go.id/id/publikasi/ruang-media/news-release/Pages/sp_235421.aspx.

101 Peter J. Morgan, Paulo José Regis, and Nimesh Salike. "Loan-to-Value Policy as a Macroprudential Tool: The case of Residential Mortgage Loans in Asia". *ADBI Working Paper* 528, (May 2015), 4.

controlling the growth of mortgage loans.[102] This policy was implemented in 2012 when there was an acceleration of growth in housing loans and motor vehicle loans reaching 24.4% (*yoy*).[103] The abolition of credit incentives for environmentally-friendly houses and vehicles in the latest BI regulations regarding LTV and FTV indicates that sustainability has not always been a priority in the implementation of Bank Indonesia policy. Moreover, the LTV and FTV instruments were originally macroprudential instruments aimed at controlling the growth of housing loans in general and not as macroprudential instruments specifically aimed at preventing financial crises due to climate disasters.

Reflecting on these measures, central bank policy requires accountability as a prerequisite for legitimacy.[104] Legitimacy can be defined as belief in the proper use of principles and procedures to prepare, make, implement and enforce decisions.[105] In a broader sense, legitimacy indicates that the public accepts the authority of state institutions and their authority to exercise power.[106] There are two aspects that can be used as an approach in understanding legitimacy, namely normative and sociological. The normative aspect or the formal aspect emphasizes the right to rule owned by the institution, while the social aspect emphasizes the belief that the institution has the right to rule.[107] The formal aspect emphasizes that the establishment of an independent central bank must be the result of democratic actions such as those of legislators, constitutional decisions, or provisions of conventions. Social legitimacy refers to support by the public, and is determined by acceptance, loyalty, or the system.[108]

In a democracy, legitimacy can be divided into input-oriented, i.e., political policy is legitimised if and because it reflects the will of the people; and output-oriented, i.e., political policies are legitimised if and because these policies effectively promote the general welfare of the constituents concerned.[109] The

---

[102] Rani Wijayanti, Nur M Adhi P., and Cicilia A. Harun. "Effectiveness of macroprudential policies and their interaction with monetary policy in Indonesia". *BIS Paper* 110, (February 2020), 32.

[103] Azka Muhtia. "Macroprudential Policy Study: Loan to Value Ratio in Home Ownership Credit Control". *JIET (Jurnal Ilmu Ekonomi Terapan)* 4, no. 1 (2019): 18.

[104] Charles Goodhart and Rosa Lastra. "Central Bank Accountability and Judicial Review". *SUERF Policy Note* 32, (May 2018), 2.

[105] Johan P. Olsen, *Democratic Accountability, Political Order, and Change: Exploring Accountability Processes in an Era of European Transformation*, (Oxford and New York: Oxford University Press, 2017), 2.

[106] Paul Tucker, *Unelected Power: The Quest for Legitimacy in Central Banking and The Regulatory State*, (Princeton: University Press, 2018), 11.

[107] Karin Bäckstrand, Fariborz Zelli, and Philip Schleifer. "Legitimacy and Accountability in Polycentric Climate Governance", in *Governing Climate Change: Polycentricity in Action?* edited by Andrew Jordan, Dave Huitema, Harro Van Asselt, and J. Forster (Cambridge: Cambridge University Press, 2018), 342.

[108] Charles Goodhart and Rosa Lastra. "Populism and Central Bank Independence", *Open Economies Review* 29, (2018), 10.1007/s11079-017-9447-y, 54.

[109] Fritz Scharpf, *Governing in Europe: Effective and Democratic?* (Oxford: Oxford University Press, 1999), 6-7.

legitimacy of input comes from procedural logic, questioning whether policies and norms developed in a transparent, fair, inclusive, and accountable manner. The output legitimacy is related to consequential logic, collective problem solving and effectiveness with the question: do norms and institutions produce collective problem solving and performance?[110] Legitimacy is necessary because it supports the establishment of voluntary compliance with policies and laws.[111]

To assess the legitimacy of BI's green economic policies, normative and social aspects can be used. Furthermore, three criteria from David Beetham that can be used to justify the legitimacy of an authority's actions, namely: (1) by legally valid means; (2) according to laws, norms, and conventions that conform to a society's deep values and normative beliefs about governance; and (3) pursuant to some collective acceptance of the practice.[112] The first two criteria reflect the normative dimensions of legitimacy, namely whether BI has the authority to issue green policies according to law. The answer to the question of normative legitimacy can be found by observing the laws on the central bank and financial system, which mandates BI not only to maintain currency stability, but also to prevent and overcome the risk of a financial system crisis. In addition, BI is given discretion in determining policy instruments to fulfil its mandate. However, examining whether the central bank's actions have legitimacy because they do not violate the mandate given, especially when the regulation provides a broad and possibly vague mandate is not easy.[113] The need to consider general economic policies and the expansion of the mandate to prevent and deal with financial system crises are legal loopholes that open up opportunities for BI's green policies.

The third criteria in measuring legitimacy, namely collective acceptance, is not easy to assess. This is because a group of people may support an environmentally sound policy while another group rejects it. Therefore, the assessment of legitimacy often returns to the first and second measures.[114] However, there are a several fundamental reasons why central banks need to play a role in driving a green economy and mitigating climate change. The main argument in this regard is to look at the long-term impact of climate change on price stability and the financial system.[115] The second argument is how overcome market failures which are biased towards industries with high

---

[110] Bäckstrand, Zelli and Schleifer. "Legitimacy and Accountability".
[111] Tucker, *Unelected Power.*
[112] *Ibid.*, 159-160.
[113] See Goodhart and Lastra. "Populism and Central Bank", 55.
[114] Skinner, "Central Bank Activism", 313-316.
[115] Dikau and Volz, "Central Bank Mandates", 2-3 and Volz, "On the Role of Central Banks", 9.

carbon emissions. This second argument is at the same time supported by the principle of market efficiency rather than market neutrality.[116]

IV. CONCLUDING REMARKS

The climate crisis has been recognised by many central banks in various countries in the world as a potential disruption to financial system stability. In the last few decades, BI has issued various environmentally sound financial policies and has been involved in various regional and international forums that support the adoption of green economy and finance. This can happen because, first, BI is given the freedom or independence in using various policy instruments under its authority; secondly, the expansion of BI's mandate to maintain financial system stability into the entry point for various green financial policies as part of mitigating climate-related financial impacts; third, institutional coordination and involvement in various green finance forums strengthens BI's green finance policy ideas. However, further discussions show that this expansion of the mandate simultaneously affects the independence of the central bank, because it makes the central bank enter areas where institutional cooperation is needed. Therefore, the next issue that arises and must be answered by the central bank is related to accountability and especially legitimacy. Apart from interpreting the central bank's mandate broadly and including the potential impact of climate change as a risk to the stability of prices and goods, the unfair market allocation of carbon-intensive investments is a legitimacy argument that can be addressed by central banks.

REFERENCES

Anggraeni, Rina. "BI Officially Becomes a Member of the Network for Greening the Financial System". SINDOnews.com, 11 November 2019, accessed on 24 August 2022, https://ekbis.sindonews.com/berita/1457619/178/bi-resmi-jadi-member-network-for-greening-the-financial-system.

Antara, "Bank Indonesia: Lima Persen Cadangan Devisa Dialokasikan untuk Obligasi Berkelanjutan", Tempo.co, 2 November 2022, https://bisnis.tempo.co/read/1652264/bank-indonesia-lima-persen-cadangan-devisa-dialokasikan-untuk-obligasi-berkelanjutan, accessed January 2023.

Bäckstrand, Karin, Fariborz Zelli, and Philip Schleifer. "Legitimacy and Accountability in Polycentric Climate Governance". In Andrew Jordan,

[116] Volz, "On the Role of Central Banks", 12 and Luke Bartholomew & Paul Diggle, "Central Banks and Climate Change - The Case for Action", (July 29, 2021) https://ssrn.com/abstract=3895605 or http://dx.doi.org/10.2139/ssrn.3895605

Dave Huitema, Harro Van Asselt, and J. Forster (Eds.) Governing Climate Change: Polycentricity in Action? Cambridge: Cambridge University Press.

Balls, Ed, James Howat, & Anna Stansbury. 2018. "Central Bank Independence Revisited: After the financial crisis, what should a model central bank look like?", M-RCBG Associate Working Paper No. 87.

Bank Indonesia. "Frequently Asked Questions (FAQ) Bank of Indonesia Regulation No. 23/2/PBI/2021 on Third Amendment of Bank of Indonesia Regulation No. 20/8/PBI/2018 on Loan to Value Ratio for Property Loans, Financing to Value Ratio for Property Financing, and Down Payments for Motor Vehicle Loans or Financing", accessed in June 2022, https://www.bi.go.id/id/publikasi/peraturan/Documents/FAQ_PBI_230221.pdf.

Bank Indonesia. "Governance Process". Bank Indonesia, accessed on 23rd, August 2022 https://www.bi.go.id/id/about-bi/profile/governance/process.aspx.

Bank Indonesia. Kajian Stabilitas Keuangan 38, (Maret 2022).

Bank Indonesia. "Bank Indonesia Green Finance Initiative", Financial Stability Review 37, (September 2016).

Bank Indonesia. Blueprint Pengembangan Pasar Uang 2025 Bank Indonesia: Membangun Pasar Uang Modern dan Maju di Era Digital. Jakarta: Bank Indonesia. (2020), p. 54.

Bank of England. "Climate change", Bank of England, 8 June 2022, accessed in June 2022 https://www.bankofengland.co.uk/climate-change.

Bartholomew, Luke and Paul Diggle. "Central Banks and Climate Change - The Case for Action", (July 29, 2021) https://ssrn.com/abstract=3895605 or http://dx.doi.org/10.2139/ssrn.3895605

Bernanke, Ben S. "Central Bank Independence, Transparency, and Accountability". Board of Governors of The Federal Reserve System, 25th May 2010, accessed on 25th August 2022, https://www.federalreserve.gov/newsevents/speech/bernanke20100525a.htm.

Boneva, Lena, Gianluigi Ferrucci, and Francesco Paolo Mongelli. "To be or not to be "green": how can monetary policy react to climate change?", ECB Occasional Paper Series No 285, (November 2021).

Brunetti, Celso. Benjamin Dennis, Dylan Gates, Diana Hancock, David Ignell, Elizabeth K. Kiser, Gurubala Kotta, Anna Kovner, Richard J. Rosen, and Nicholas K. Tabor. "Climate Change and Financial Stability," FEDS Notes. Washington: Board of Governors of the Federal Reserve System, March 19, 2021, https://doi.org/10.17016/2380-7172.2893.

Dietz, Simon, Alex Bowen, Charlie Dixon, and Philip Gradwell. "'Climate value at risk' of global financial assets". Nature Climate Change 6, (2016):676-679. https://doi.org/10.1038/nclimate2972.

Diggle, Paul and Luke Bartholomew. "Climate change and central banks: The case for violating neutrality", CEPR, 12 August 2021, accessed January 2023, https://cepr.org/voxeu/columns/climate-change-and-central-banks-case-violating-neutrality.

Dikau, Simon and Ulrich Volz. 2021. "Central bank mandates, sustainability objectives and the promotion of green finance". Ecological Economics 184, 10.1016/j.ecolecon.2021.107022.

Durrani, Aziz, Masyitah Rosmin & Ulrich Volz. 2020. "The role of central banks in scaling up sustainable finance – what do monetary authorities in the Asia-Pacific region think?", Journal of Sustainable Finance & Investment, DOI: 10.1080/20430795.2020.1715095.

Eijffinger, Sylvester C.W. and Jakob De Haan. 1996. The Political Economy of Central Bank Independence. Princeton: International Finance Section Department of Economics Princeton University.

European Central Bank. "ECB presents action plan to include climate change considerations in its monetary policy strategy", European Central Bank, accessed in June 2022, https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210708_1~f104919225.en.html.

Financial Stability Board. "The Implications of Climate Change for Financial Stability". The Financial Stability Board. 23 November 2020 accessed June 2022, https://www.fsb.org/wp-content/uploads/P231120.pdf.

G20. "G20 Chair's Summary: Third G20 Finance Ministers and Central Bank Governors Meeting". G20 Indonesia. 16 July 2022, accessed on 24 August 2022, https://g20.org/g20-chairs-summary-third-g20-finance-ministers-and-central-bank-governors-meeting/.

Goodhart, Charles, and Rosa Lastra. "Central Bank Accountability and Judicial Review". SUERF Policy Note 32, (May 2018).

Goodhart, Charles, and Rosa Lastra. "Populism and Central Bank Independence", Open Econ Rev 29, (2018), 10.1007/s11079-017-9447-y.

Grippa, Pierpaolo, Jochen Schmittmann, and Felix Suntheim. 2019. "Central banks and financial regulators are starting to factor in climate change". Finance & Development.

Haryono, Erwin. "Empat Tantangan dan Respons Bank Sentral untuk Pemulihan Ekonomi yang Lebih Kuat", Bank Indonesia, 2 September 2021, accessed in June 2022, https://www.bi.go.id/id/publikasi/ruang-media/news-release/Pages/sp_2322421.aspx.

Haryono, Erwin. "Bank Indonesia Supports the Presence of the Asian Green Bond Fund". Bank Indonesia. 25 February 2022, accessed on 24 August 2022, https://www.bi.go.id/id/publikasi/ruang-media/news-release/Pages/sp_246622.aspx.

Haryono, Erwin. "BI Terbitkan Ketentuan Pelonggaran LTV/FTV dan Uang Muka". Bank Indonesia, 2 March 2021, accessed on 24th August 2022, https://www.bi.go.id/id/publikasi/ruang-media/news-release/Pages/sp_235421.aspx.

Heldt, Eugénia C., and Tony Müller. "Bringing Independence and Accountability Together: Mission Impossible for the European Central Bank?". Journal of European Integration, (2021), 10.1080/07036337.2021.2005590.

Juhro, Solikin M. 2020. Introduction to Central Banking Theory and Policy. Jakarta: Rajagrafindo Persada.

Lubis, M. Syahran W. "Pengembang Masih Abaikan Properti Hijau, Terancam Raksasa Tidur", Bisnis Indonesia, (25 February 2022), https://bisnisindonesia.id/article/pengembang-masih-abaikan-properti-hijau-terancam-raksasa-tidur, accessed January 2023.

Mas, Rodolfo Dall'Orto, Benjamin Vonessen, Christian Fehlker, & Katrin Arnold. 2020. "The case for central bank independence", ECB Occasional Paper Series No 248.

Masitoh, Siti (rep.) and Khomarul Hidayat (ed.), "Perubahan iklim ganggu stabilitas moneter dan sistem keuangan", 9 December 2021, accessed in June 2022, https://newssetup.kontan.co.id/news/perubahan-iklim-ganggu-stabilitas-moneter-dan-sistem-keuangan.

Masripatin, Nur, Emma Rachmawaty, Yulia Suryanti, Hany Setyawan, M. Farid, and Nur Iskandar. 2017. NDC (Nationally Determined Contribution) Implementation Strategy. Jakarta: Ministry of Environment and Forestry.

Marchant, Natalie. "This is how climate change could impact the global economy", World Economic Forum, 28 June 2021, accessed June 2022, https://www.weforum.org/agenda/2021/06/impact-climate-change-global-gdp/.

Marpaung, Bronson, Hermanto Siregar, and Lukytawati Anggraeni. "Analysis of El Niño Impact and the Price of Food Commodities on Inflation". Jurnal Ekonomi Indonesia 8 (1), https://doi.org/10.52813/jei.v8i1.11. (2019).

McKibbin, Warwick J., Adelle C. Morris, Augustus J. Panton, and Peter J. Wilcoxen. 2017. "Climate Change and Monetary Policy: Dealing with Disruption." Climate and Energy Economics Discussion Paper. Washington, DC: Brookings Institution.

Mengze, Hu, and Li Wei. 2015. "A Comparative Study on Environment Credit Risk Management of Commercial Banks in the Asia-Pacific Region", Business Strategy and the Environment 24, DOI: 10.1002/bse.1810.

Morgan, Peter J., Paulo José Regis, and Nimesh Salike. 2015. "Loan-to-Value Policy as a Macroprudential Tool: The case of Residential Mortgage Loans in Asia". ADBI Working Paper 528.

Muhtia, Azka. 2019. "Macroprudential Policy Study: Loan to Value Ratio in Home Ownership Credit Control". JIET (Jurnal Ilmu Ekonomi Terapan) 4 (1).

Olsen, Johan P. 2017. Democratic Accountability, Political Order, and Change: Exploring Accountability Processes in an Era of European Transformation. Oxford and New York: Oxford University Press.

Network for Greening the Financial System (NGFS), "Membership", 16 June 2022, Network for Greening the Financial System, accessed in June 2022, https://www.ngfs.net/en/about-us/membership.

Network for Greening the Financial System (NGFS), "Origin and Purpose", 13 September 2019, Network for Greening the Financial System, accessed in June 2022, https://www.ngfs.net/en/about-us/governance/origin-and-purpose.

Permana, Eka Hendra, et al. 2019. Public Funding for Indonesia's Climate Change Control 2016-2018. Jakarta: Fiscal Policy Agency Ministry of Finance.

Pörtner, Hans-Otto, et al. 2022. Climate Change 2022: Impacts, Adaptation and Vulnerability Summary for Policymakers. Switzerland: International Panel on Climate Change.

Putri, Cantika Andika. "Apa Dampak Perubahan Iklim ke Stabilitas Moneter? Ini Kata BI", 18 February 2022, accessed in June 2022, https://www.cnbcindonesia.com/market/20220218192928-17-316613/apa-dampak-perubahan-iklim-ke-stabilitas-moneter-ini-kata-bi.

Rao, Shri M. Rajeshwar. "Heed to Heal - Climate Change is the Emerging Financial Risk", Reserve Bank of India, 20 September 2021, accessed in June 2022, https://www.rbi.org.in/Scripts/BS_SpeechesView.aspx?Id=1127.

Scharpf, Fritz. 1999. Governing in Europe: Effective and Democratic? Oxford: Oxford University Press.

Schnabel, Isabel. "From green neglect to green dominance?", (3 March 2021), https://www.ecb.europa.eu/press/key/date/2021/html/ecb.sp210303_1_annex~3c03f9a09c.en.pdf, accessed January 2023.

Schnabel, Isabel. "From market neutrality to market efficiency", (14 June 2021), https://www.ecb.europa.eu/press/key/date/2021/html/ecb.sp210614~162bd7c253.en.html, accessed January 2023.

Setyowati, Abidah B. 2020. "Governing sustainable finance: insights from Indonesia", Climate Policy, DOI: 10.1080/14693062.2020.1858741.

Skinner, Christina Parajon. "Central Bank Activism", Duke Law Journal 71, no. 2, (November 2021). https://scholarship.law.duke.edu/dlj/vol71/iss2/1.

Steer, Andrew. 2014. "Forward" in Thomas Tanner and Leo Horn-Phathanothai. Climate Change and Development. London and New York: Routledge.

Sustainable Banking and Finance Network, "About SBFN", accessed in June 2022, https://www.sbfnetwork.org/about-sbf-network/.

Tim Penulis. 2018. Strategi Nasional Pengembangan dan Pendalaman Pasar Keuangan Tahun 2018-2024. Jakarta: Kementerian Keuangan, Bank Indonesia, and Otoritas Jasa Keuangan.

Tucker, Paul. 2018. Unelected Power: The Quest for Legitimacy in Central Banking and The Regulatory State. Princeton and Oxford: Princeton University Press.

United Nations Environment Programme, "Green Economy", UN Environment Programme, accessed June 2022, https://www.unep.org/pt-br/node/23750.

United Nations Environment Programme, "Why does green economy matter?", UN Environment Programme, accessed June 2022, https://www.unep.org/explore-topics/green-economy/why-does-green-economy-matter.

U ̈nu ̈var, Burcu. "Financing the Green Economy" in Handbooks of Green Economy. London, San Diego, Cambridge, and Oxford: Academic Press, 2019, p. 163-64.

Volz, Ulrich. 2017. "On the Role of Central Banks in Enhancing Green Finance." Inquiry Working Paper No. 17/01, Geneva: UNEP Inquiry into the Design of a Sustainable Financial System.

Volz, Ulrich. 2015.Towards a Sustainable Financial System in Indonesia, UNEP, ASrIA, and IFC.

Wachtel, Paul and Mario I. Bléjer. 2019. "A Fresh Look at Central Bank Independence: Origins and Prospects", Working papers, Leonard N. Stern School of Business Department of Economics.

Walsh, Carl E. 2010. "Central Bank Independence". In SN Durlauf and LE Blume (eds). Monetary Economics. London: Palgrave Macmillan.

Warjiyo, Perry and Solikin M. Juhro. 2016. Central Bank Policy: Theory and Practice. Jakarta: Rajawali Press.

Weidmann, Jens. "Combating climate change – What central banks can and cannot do", Speech at the European Banking Congress, (20 November 2020), https://www.bundesbank.de/en/press/speeches/combating-climate-change-what-central-banks-can-and-cannot-do-851528, accessed January 2023.

Widjanarko, Onny. "Pembiayaan Berwawasan Lingkungan Sebagai Alternatif Dorong Pemulihan Ekonomi Nasional", Bank Indonesia, 25 November 2020, accessed in June 2022, https://www.bi.go.id/id/publikasi/ruang-media/news-release/Pages/Pembiayaan-Berwawasan-Lingkungan-sebagai-Alternatif-Dorong-Pemulihan-Ekonom-Nasional.aspx.

Wijayanti, Rani, Nur M Adhi P., and Cicilia A. Harun. 2020. "Effectiveness of macroprudential policies and their interaction with monetary policy in Indonesia". BIS Paper 110.

REGULATIONS

Indonesia, Law No. 7 of 1992 on Banking .

Indonesia, Law No. 10 of 1998 on Amendment of Law No. 7 of 1992 on Banking.

Indonesia, Law No. 21 of 1998 on Sharia Banking.

Indonesia, Law No. 23 of 1999 on Bank of Indonesia.

Indonesia, Law No. 24 of 2002 on Government Bonds Law.

Indonesia, Law No. 17 of 2003 on State Finance.

Indonesia, Law No. 3 of 2004 on Amendment of Law No. 23 of 1998.

Indonesia, Law No. 10 of 2008 on State Sharia Securities Law.

Indonesia, Law No. 21 of 2011 on Financial Services Authority.

Indonesia, Law No. 9 of 2016 on Financial System Crisis Prevention and Management.

Indonesia, Bank Indonesia Regulation No. 14/15/PBI/2012 on Assessment of Asset Quality for Commercial Banks.

Indonesia, Bank Indonesia Regulation No. 7/2/PBI/2005 on Assessment of Asset Quality for Commercial Banks.

Indonesia, Bank Indonesia Regulation No. 10/13/PBI/2008 on Auction and Administration of State Securities.

Indonesia, Bank of Indonesia Regulation No. 21/13/PBI/2019 on Amendment of Bank of Indonesia Regulation No. 20/8/PBI/2018 on Loan to Value Ratio for Property Loans, Financing to Value Ratio for Property Financing, and Down Payments for Motor Vehicle Loans or Financing.

Indonesia, Bank of Indonesia Regulation No. 22/13/PBI/2020 on the Second Amendment of Bank of Indonesia Regulation No. 20/8/PBI/2018 on Loan to Value Ratio for Property Loans, Financing to Value Ratio for Property Financing, and Down Payments for Motor Vehicle Loans or Financing

This page is intentionally left blank