

CHAPTER VII

THE PROJECT GARUDA: NAVIGATING THE DIGITAL RUPIAH ARCHITECTURE

The dynamics of money development in the digital era and its challenges have prompted Bank Indonesia to review its policies in this area. A Digital Rupiah is a way to develop Indonesia's CBDC while fulfilling Bank Indonesia's public policy mission in the digital era. The launch of the "Project Garuda" by Bank Indonesia is a project that covers various initiatives to explore architectural design options for the Digital Rupiah. Considering that the Project Garuda is an initiative on a national scale, synergies with various stakeholders will continue to be pursued to strengthen policy effectiveness.



The ongoing digitalization trend presents a challenge for the central bank in carrying out its mandate to provide public access to trusted money. In accordance with its basic concept, central bank money is trusted money which functions as a means of payment that forms the basis for the process of creating money, something which is consistent with efforts to maintain monetary and financial system stability. However, the ongoing digitalization trend poses a challenge to the central bank in carrying out its mandate. The challenges are related to efforts to provide money that can be accessed by the public so that transactions can be done quickly, easily, cheaply, safely and reliably. Challenges also relate to the supply of money that can ensure the effective implementation of the central bank's mandate. Against this backdrop, the central bank needs to find a sustainable solution (a "future proof" solution) to maintain public confidence that the central bank will carry out its mandate in the digital era.

Many of the world's central banks are looking for solutions in facing challenges related to trusted money in the digital era, including reviewing the use of a Central Bank Digital Currency (CBDC). Various assessments show that CBDCs can be an alternative sustainable solution capable of maintaining public confidence in the central bank in carrying out its mandate in the digital era. The identification results show three design principles that need to be considered in CBDC development, namely: no interfere with the implementation of a central bank's mandate in the monetary and macroprudential fields; ability to coexist with currently available money; and encouragement of innovation and efficiency.

The dynamics of money development in the digital era raise a number of challenges that have prompted Bank Indonesia to review its policies in this area.

A Digital Rupiah, as a way to develop Indonesia's CBDC, will allow Bank Indonesia to continue to fulfill its public policy mission in the digital era. Bank Indonesia also places the issuance of Digital Rupiah in the context of strengthening the payment resilience of the Indonesian people. A Digital Rupiah will add to the available payment instruments that guarantees that the people are able to conduct transactions under any circumstances.

Bank Indonesia launched the "Project Garuda" as an umbrella under which to explore various architectural design options for the Digital Rupiah. A Digital Rupiah will be issued in two forms, namely Digital Rupiah wholesale (Digital w-Rupiah) and Digital Rupiah retail (Digital r-Rupiah). This will be done by adopting an end-to-end, integrated approach, and it will be carried out in stages via an iterative process that simultaneously considers potential trade-offs between planned design features and their implications. Synergies with various stakeholders will also be pursued since the Project Garuda is a national scale initiative. Apart from having a central banking dimension, the Project Garuda is also important politically given the position of the Digital Rupiah as a national effort to maintain the sovereignty of the Rupiah currency.

7.1

Digital Rupiah Rationality

The issuance and circulation of money is a classic function of a central bank²⁴. The money issued and circulated by any central bank is trusted money that functions as a means of payment and forms the basis for the money creation process, consistent with efforts to maintain monetary and financial system stability. The central bank is the only authority that has the mandate to issue trusted money, which is then referred to as central bank money. Apart from the central bank, commercial banks and non-bank private parties in some jurisdictions can also issue money (private money). However, in contrast to private money, central bank money has the lowest credit risk and is therefore positioned as a settlement asset that can ensure the security of transactions.²⁵ Central bank money plays a key role for central banks in fulfilling policy objectives in providing the safest means of payment for the public.26 Through this role, the central bank seeks to meet the transactional needs of society, including the creation and circulation of money by parties other than the central bank, in order to maintain monetary and financial system stability.27

Challenges arise in the digitalization era because the public does not have the option to use trusted forms of money in a digital format. Currently, the central bank still issues physical currency (notes and coins) and demand deposits. It is understood that physical currency can be accessed universally, while checking accounts at the central bank can only be accessed on a limited basis by certain parties, such as financial institutions. Meanwhile, digital payment instruments that are currently commonly used by the public are still only money issued by private parties, whether commercial banks or non-bank institutions, and include transfers between accounts, electronic money and card payment instruments.

Challenges in the digital era are related to the rapid development of crypto assets. The development of risky crypto assets has given rise to shadow currency and shadow central banking. The process of creating, distributing and controlling crypto assets that takes place outside the formal monetary system can develop into digital currency outside certain jurisdictional ties.²⁸ This escalation of risk has the potential to disrupt a country's monetary sovereignty, including impacting the effectiveness of monetary policy transmission. Activities in the Web 3.0 ecosystem, including crypto assets, will add further complexity to the role of central banks in maintaining financial system stability, whether in the context of mitigating micro or macrofinancial risks. In many cases, crypto assets tend to be outside the regulatory domain of the financial authorities or, at least, the scope of financial authority policies and supervision. Also, they tend to be under-regulated due to the absence of a legal entity responsible for the creation, distribution and control of crypto assets. By contrast, the existing central bank money cannot be used easily within the digital ecosystem.

These various challenges are faced by the world's central banks which need to find sustainable solutions ("future proof" solutions) that are able to maintain public confidence in central banks in carrying out their mandates in the digital era. The intended solution needs to have three important elements, namely: (i) meeting the public's need for risk-free money in digital form; (ii) being able to maintain monetary sovereignty; and (iii) ensuring the effectiveness of implementing the central bank's mandate in maintaining monetary stability, financial system stability and payment system efficiency and security. These three elements have important implications for the central bank in issuing trusted digital money that can be accessed widely by the public.

²⁴ Bank for International Settlements, (2020); Bank for International Settlements, (2022); Roberd and Velde, (2014)

²⁵ CPSS-IOSCO, 2012

²⁶ Bank for International Settlements, 2022

²⁷ Blinder, 2010; Goodhart, 2010

²⁸ Brunnermeier et al., 2019

Digital developments and challenges faced by central banks have prompted many of the world's central banks and various international financial institutions to start looking for policy options, with the Central Bank Digital Currency (CBDC) being an alternative solution. CBDC is central bank money in a new format which is also the responsibility of the central bank and has the same denominations as the official currency and can be used as a medium of exchange, unit of account and store of value. In this regard, the Group of Twenty meetings in Saudi Arabia (2020), Italy (2021) and under the Indonesian Presidency (2022) assigned the Financial Stability Board (FSB), Bank for International Settlements (BIS), International Monetary Fund (IMF) and the World Bank to review and recommend steps that need to be taken to respond to digital currency developments, including CBDCs. In line with these efforts, the majority of central banks around the world, including Bank Indonesia, are intensifying the development of a CBDC. The BIS survey in 2021 shows that there are already 81 global central banks in the CBDC experimentation and piloting stages.²⁹

The challenges posed by the dynamics of money development in the digital era have prompted Bank Indonesia to review its policies in this area. The shift in the public's transaction preferences has prompted Bank Indonesia to examine the possibility of issuing trusted money in a digital format as a means of payment that can be accessed by the public. The rising potential risks of shadow banking, shadow currency and shadow central banking also require solutions from Bank Indonesia so that the Rupiah remains the only legal tender in the Unitary State of the Republic of Indonesia (NKRI) in the digital era. In addition, the increase in digital economic and financial (EKD) activities that form an exclusive ecosystem (a "walled garden"), requires Bank Indonesia to formulate a Rupiah instrument capable of bridging this gap and fulfilling its mandate in this ecosystem.

The Digital Rupiah is expected to emerge as a sustainable solution in the future. The Digital Rupiah, as a manifestation of developing Indonesia's CBDC, is a way for Bank Indonesia to continue to fulfill its public policy mission in the digital era. With Digital Rupiah, the public will have access to risk-free digital money denominated in Rupiah. At the same time, the central bank can still maintain top-notch public services in the digital era while retaining public trust in the Rupiah. To support this policy, the Digital Rupiah also needs to be just as secure and efficient as physical currency and current accounts at Bank Indonesia. With these characteristics, the Digital Rupiah will be able to help Bank Indonesia to carry out its mandate in the digital era.

Bank Indonesia also sees the issuance of Digital Rupiah as strengthening the payment resilience of the Indonesian people. A Digital Rupiah will add to the number of payment instruments that guarantees that the public is able to conduct transactions under any circumstances. A Digital Rupiah will complement the common money used by the public, including physical currency. The development of a Digital Rupiah is Bank Indonesia's solution to presenting a form of Rupiah currency that is easy to use, low cost, safe and also reliable in a digital ecosystem.

Based on these various considerations, Bank Indonesia launched the "Project Garuda" as an umbrella project for various exploratory initiatives in regard to architectural design options for the Digital Rupiah. This project is a strategic initiative of Bank Indonesia in carrying out a number of Digital Rupiah experimental projects, whether from a wholesale or retail perspective.

²⁹ Kosse and Ilaria, 2022

7.2

Digital Rupiah Design

The CBDC design plays an important role in its successful implementation. The configuration of the CBDC design chosen will determine the potential added value for the economy; the ability to bridge the central bank's monetary and macroprudential policy mandates; as well as the steps that need to be taken to mitigate any risks that may arise. The Group of Central Banks (2020) outlines three basic principles that central banks must consider when determining the design of a CBDC. First, CBDCs must not disrupt monetary stability and financial system stability. Second, CBDCs should coexist and complement existing types of money. And third, CBDCs should encourage innovation and efficiency.

The formulation of the CBDC design including the Digital Rupiah covers three main aspects. First, the central bank needs to consider the CBDC architecture to be implemented, where it can choose wholesale CBDC (w-CBDC) or retail CBDC (r-CBDC). In general, w-CBDC is more popular in developed countries with good levels of financial market depth and financial inclusion. By contrast, r-CBDC is generally popular in developing countries where the financial markets are shallow and financial inclusion is still low. Although able to ensure direct public access to trusted money,

r-CBDC development is generally more complex than w-CBDC. Second, the central bank needs to consider the contribution of CBDCs to financial inclusion. If well designed, CBDCs, especially r-CBDCs, can improve financial inclusion through things like offline functionality and the optimization of granular data. In the Indonesian context, this is important because CBDC implementation will be able to strengthen Bank Indonesia's various initiatives taken in accelerating payment system digitization through BSPI 2025 to support financial inclusion, such as QRIS, SNAP and BI-FAST. Third, the central bank needs to pay attention to fulfilling the aspects of integration, interconnection and interoperability (3I) of CBDCs with financial market infrastructure, including payments between countries. CBDC platforms must be able to coexist with existing financial market infrastructure to provide efficient and integrated solutions. Furthermore, CBDCs also need to have 3I capabilities in the context of transactions between countries through the use of technology and simplification of distribution channels. This is necessary to reduce various problems such as high transaction fees, slow transaction processing, limited access and transactions that are not transparent.



7.2.1. Digital Rupiah Framework

The idea of developing a Digital Rupiah is based on three main drivers. First, the need for Bank Indonesia, as the sole authority issuing currency, to respond to the rapid development of EKD, which in this case is the issuance of currency in a digital format. This step is critical in efforts to maintain the sovereignty of the Rupiah currency in the digital era. Second, as part of efforts by Bank Indonesia to strengthen its role in the international arena, a Digital Rupiah puts Indonesia on equal footing with other countries on the global CBDC development map. This includes Bank Indonesia's involvement in various initiatives on design capability development for CBDC interoperability between countries. Third, to support the need to accelerate integration of national EKD because this can ensure an effective and integrated money circulation process between the existing economic structure and the EKD ecosystem.

Based on these main drivers, the framework regarding the design of the Digital Rupiah will have three objectives. First, the Digital Rupiah, as a legal digital payment instrument in the Republic of Indonesia, complementing banknotes and coins. This goal will be achieved by Bank Indonesia through the issuance of Rupiah-denominated digital money

of technology platforms that are able to support the issuance and circulation process. Second, the Digital Rupiah as a core instrument for Bank Indonesia in carrying out its mandate in the digital era. This objective will be achieved through the development of a Digital Rupiah design that ensures alignment with the implementation of Bank Indonesia's mandate in regard to monetary, macroprudential and payment system aspects. Third, the Digital Rupiah as an important element in supporting the development of the national financial system and integration of EKD. This goal will be achieved through the development of features capable of supporting end-to-end innovation, financial inclusion and efficiency (Figure 7.1).

as a sovereign public good based on the selection

Within this framework, the Digital Rupiah is expected to be able to fulfill its function as a medium of exchange, store of value and unit of account, as well as a monetary anchor for other digital currencies in the Republic of Indonesia. The implementation of the development of the Digital Rupiah will be carried out in line with the mandate of the 1945 Constitution while taking into account other laws and regulations, in line with the government's development equity program and carried out collaboratively with all stakeholders.

Figure 7.1. Framework of the Digital Rupiah

DIGITAL RUPIAH: FRAMEWORK

BI's response as the central bank, with the sole authority for issuing currency, including digital currency, in addressing rapid development of DFE (Sovereignty of the Digital Rupiah)

As part of BI to cooperate or take part in international initiatives among central banks and other international institutions in issuing CBDC

Support accelerated integration of DFE nationality



Source: Bank Indonesia

Implementation of this Digital Rupiah design framework will pay attention to compliance with three main principles. First is the conceptual design that adheres to the principle of "doing no harm" to monetary and financial system stability. Second is fulfilling the 3I aspects of the Digital Rupiah technology platform with payment system infrastructure and other financial market infrastructure, including the readiness of this infrastructure. Third is choosing a technology platform that supports the issuance and circulation of Digital Rupiah, including to support the interoperability of transactions between countries. Experiments on various available technology platform options, both distributed ledger technology (DLT) and non-DLT, will be crucial.

7.2.2. Digital Rupiah Configuration

Determining the right design configuration is one of the most important considerations in issuing Digital Rupiah. In this regard, the design configuration of the Digital Rupiah consists of five main elements, namely: (i) issuance; (ii) distribution and transaction recording; (iii) access; (iv) scope and connectivity; and (v) infrastructure and technology (Figure 7.2).

Issuance

Digital Rupiah will be issued in two types, namely Digital Rupiah wholesale (Digital w-Rupiah) and Digital Rupiah retail (Digital r-Rupiah) and it will be developed using an end-to-end, integrated approach. Development will begin with the initial stage of Digital w-Rupiah, which will become the foundation for the overall development stage of the Digital Rupiah (Digital r-Rupiah and Digital w-Rupiah). With this integrated approach, Digital Rupiah should be transactable, both in the wholesale and retail markets for goods and services, while increasing the effectiveness of its adoption. The use of Digital w-Rupiah in the wholesale market is expected to be able to support the development of financial markets and the integration of EKD nationally.

Digital Rupiah will complement bank notes and coins and third party current accounts at Bank Indonesia. All are considered as risk-free transaction settlement assets. Digital Rupiah is a direct claim by the holder on Bank Indonesia, with the same issuance mechanism and user coverage as at present. Digital w-Rupiah can only be used on a limited basis by parties appointed by Bank Indonesia, such as third-

Figure 7.2. Design Configuration of the Digital Rupiah 5. INFRASTRUCTURE/ 1.ISSUANCE 2. DISTRIBUTION & RECORDING 3. ACCESS 4. INTERLINKAGE **TECHNOLOGY** R-DIGITAL RUPIAH W-DIGITAL RUPIAH INTEGRATED PERMISSIONED 1 TIER **TOKEN** DIT **DIGITAL** Recording **RUPIAH** Hybrid FMI & SP End to End -CBDC to R-CBDC **TOKEN** CENTRALIZED 2 TIER (Open **ACCOUNT** ermissioned DLT) INTEGRATED w-Digital w-Digital Rupiah: reserve w-Digital Rupiah is • 3I: Infrastructure of Resilience: Performace, obtained from BI (1 tier) Rupiah: Token conversion in BI Payment System Robustness, Security & Domestic FMI Capability: Scalabity, r-Digital Rupiah: Distribution to end users r-Digital Rupiah: w-Digital Rupiah Maturity, Modularity Token & Account through intermediary. Enables Conversion to r-Digital Integration/Interlinkage: wholesaler & retailer (2 tier) cross-border Rupiah W-CBDC, R-CBDC, development CBDC with SP & FMI Recording of transactions is Liabilities Digital Rupiah infrastructure done by BI and w-Digital Rupiah & intermediaries (hybrid) r-Digital Rupiah

Source: Bank Indonesia



party checking accounts at Bank Indonesia, while Digital r-Rupiah can be used by the general public; just like banknotes and coins.

Distribution and Recording of Transactions

The Digital Rupiah distribution scheme combines one-tier and two-tier architecture. In this scheme, Digital w-Rupiah will be distributed in a one-tier manner, that is, obtained directly from Bank Indonesia, while Digital r-Rupiah will be distributed in a two-tier manner, that is to say through intermediaries. Nonetheless, under certain conditions, Bank Indonesia may choose a one-tier Digital r-Rupiah distribution option, for example to provide access to Digital r-Rupiah in the frontier, outermost and remote (3T) regions. In this scheme, Bank Indonesia would distribute Digital r-Rupiah directly to end users. This model is similar to the current banknotes and coins distribution scheme.

Wholesalers would distribute Digital Rupiah to end users through two channels. First, through direct distribution channels from wholesalers to end users. Second, through indirect distribution channels with retailers as intermediaries. As a result, Bank Indonesia would be able to monitor the position and movement of the Digital Rupiah in a granular manner, both at the intermediary and end-user levels. The use of granular data would still, of course, pay heed to the importance of personal data protection. This model, or otherwise

referred to as the hybrid recording model, would allow Bank Indonesia to have control over the Digital Rupiah management process from end-to-end in the context of monetary and financial system control. This model is also seen as more resilient, especially in the event that an intermediary fails.

Access

The Digital Rupiah can be accessed through two methods, i.e. via an account and/or token. Digital w-Rupiah is accessed by its users through token-based verification. Tokens are seen as a suitable choice for Digital w-Rupiah because they are seen as being more capable of facilitating transactions between actors in financial markets which tend to be more complex, whilst also complementing Bank Indonesia's Real Time Gross Settlement (BI-RTGS) which is account-based.

Digital r-Rupiah is accessed by users through account and/or token-based verification that is regulated based on tiering and transaction value (capping) segmentation. Token-based Digital r-Rupiah will be used to facilitate small transactions up to a certain threshold, while transactions that exceed the threshold will be facilitated by account-based Digital r-Rupiah. The use of tokens to access Digital r-Rupiah replicates the flexibility of using banknotes and coins. The granularity of data from profile recording and token-based Digital r-Rupiah transactions will

be recorded from the information in the wallet address. However, to maintain payment integrity, that flexibility needs to be limited to a certain extent. In this context, account-based Digital r-Rupiah is the right choice for large transactions because it is seen as superior in fulfilling commitments to Anti-Money Laundering and Prevention of Terrorism Financing (APU PPT).

Scope and Connectivity

Digital Rupiah is designed to be suitable for various use cases, whether in wholesale or retail ecosystems. Digital Rupiah will become a settlement asset for various types of transactions in the goods and services market as well as in the financial market, both in traditional and digital ecosystems, such as the Web 3.0 ecosystem including DeFi and Metaverse.

Digital Rupiah will have various features that are expected to provide added value to the economy.

These superior features include programmability, composability and smart contract-based tokenization. In addition, Digital Rupiah also makes it possible to capture granular data and information in real time. Specifically, Digital r-Rupiah will be equipped with offline functionality to reach segments of society where basic infrastructure is inadequate. Moreover, the Digital Rupiah is being designed in such a way that it will be able to handle the interoperability of transactions between countries.

To meet these expectations, the technical, business and semantic design of the Digital Rupiah must be able to meet the aspects of 31. This is true in both the context of connectivity with domestic or international financial market infrastructure. The design of the Digital Rupiah is expected to be able to coexist with

infrastructure that is currently in place or will be developed, including any infrastructure developed under the BSPI 2025 and BPPU 2025 initiatives.

Infrastructure and Technology

The Digital Rupiah's technology infrastructure and platform uses a combination of DLT and centralized infrastructure. The choice of DLT for Digital w-Rupiah paves the way for Bank Indonesia and market players to streamline financial transactions, including through the various features offered by smart contracts. DLT is also a more robust technology than a centralized system, having a reduced risk of a single point of failure. Permissioned-based DLT was chosen to guarantee a higher level of security considering that access to the DLT platform is not open to all parties. Besides that, the issue of scalability is easier to handle in comparison to permissionless DLT.

Permissioned DLT is seen as insufficient in being able to facilitate a large volume of retail transactions. In practice, CBDC platforms do not always use DLT solutions. The scalability limitations in DLT solutions are feared to limit settlement speed when used on the retail side. On this basis, a centralized model may be used for Digital r-Rupiah. Nonetheless, the DLT model is still a possible choice for Digital r-Rupiah as a technological solution capable of addressing the problems related to scalability.

7.3

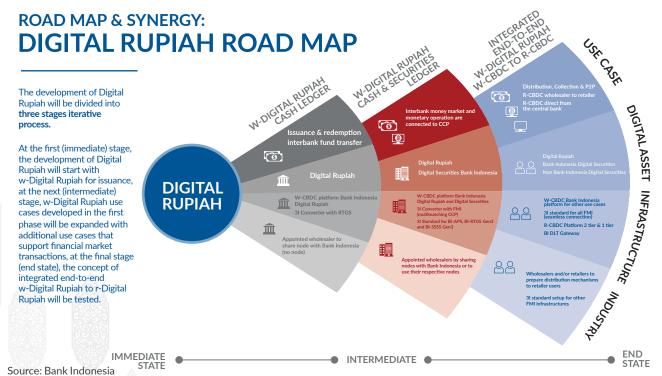
Digital Rupiah Development Approach

Digital Rupiah will be developed gradually in an iterative process. This gives consideration to the potential trade-offs between planned design features and their implications, simultaneously. This approach allows Bank Indonesia to explore various alternative Digital Rupiah designs based on available technological solutions to ensure optimal added value to the economy. These various considerations will be the focus of discussions, research and experiments which are expected to be able to produce the best design combination that meets various criteria such as speed, resilience, efficiency and scalability. This approach will also provide ample flexibility to stakeholders to prepare themselves before the Digital Rupiah is implemented.

The development of Digital Rupiah will take place in three stages based on four feasibility criteria, namely: relevance; urgency; readiness; and impact. This will begin with public consultations (consultative papers and focus group discussions), technology experiments (proof of concept, prototyping and piloting/sandboxing) and conclude with a policy stance review (Figure 7.3).

In the first stage (immediate), the development of Digital Rupiah will begin with Digital w-Rupiah as a use case for issuing, destroying and transferring funds between parties. This use case is seen as the most feasible option for the early stages of developing Digital Rupiah; it is relatively simple, as it involves a limited ecosystem, lower transaction complexity and minimal system update requirements. This stage serves as an important foundation for the development of subsequent use cases. In this first stage, the use case of issuance and destruction is a conversion process between a current account at the central bank and Digital w-Rupiah. To support this use case, the Digital w-Rupiah platform will have 3I capabilities with the BI-RTGS infrastructure that is currently being run through a converter. Meanwhile, the process of validation and settlement of use case transactions for inter-party fund transfers will be carried out on the Digital w-Rupiah platform and is limited to Digital Rupiah. At this stage, the industry can operate nodes independently with the infrastructure provided by Bank Indonesia.

Figure 7.3. Digital Rupiah Road Map



In the second (intermediate) stage, various use cases of Digital w-Rupiah developed in the first phase will be expanded with additional use cases that support transactions in financial markets. These use cases cover Delivery Versus Payment (DvP) for the Interbank Money Market (PUAB) and monetary operations (OM) and central counterparty fund settlement (CCP). At this stage, tokenization of securities has begun to be developed on the Digital w-Rupiah platform. Industries that carry out the wholesaler function need to start preparing their own nodes according to their transactional needs. In more detail, the use case for DvP transactions involves digital assets in the form of cash tokens, namely Digital w-Rupiah and securities tokens, namely digital securities. The process of issuing digital securities is done through a securities account on BI-SSSS infrastructure, as is the issuance of Digital w-Rupiah which is done through a checking account on BI-RTGS infrastructure. The integration of digital securities and Digital w-Rupiah on the platform will shorten the settlement process. Moreover, at this intermediate stage, a connection to the CCP--who should also be a participant on the Digital w-Rupiah platform--will also be tested.³⁰ As such, the settlement of funds resulting from clearing of interest rate derivative transactions

and standardized exchange rates transacted through the trading platform will be carried out through the Digital w-Rupiah platform.

In the final (end) stage, the integrated end-to-end Digital w-Rupiah to Digital r-Rupiah concept will be tested. At this stage, Bank Indonesia will also develop use cases for circulation and collection as well as for peer-to-peer transfers of Digital r-Rupiah. One of the key use cases that will be tested at this stage is the conversion process between Digital w-Rupiah and Digital r-Rupiah, as reflected in the interaction between the wholesale market and the retail market. In addition, in the development of use cases for peer-to-peer transfers, the trial will cover the Digital r-Rupiah transfer process to meet the payment needs for goods and services, as well as for the transfer of public funds. Industries that act as wholesalers need to develop distribution mechanisms to end users and prepare 3I standards as stipulated by Bank Indonesia.31 In addition, the use case of Digital w-Rupiah in the end-stage will be expanded by issuing non-Bank Indonesia digital securities as digital assets in Monetary Operations and the money market for Rupiah and foreign exchange.

³¹ Fulfillment of 3I aspects in the Digital Rupiah architecture at this stage will include three experimental quantities. First, the interconnection of the Digital w-Rupiah platform with Digital r-Rupiah. Second, the interconnection of the Digital w-Rupiah and Digital r-Rupiah platforms with all other financial market infrastructure without using converters. And third, the development of DLT gateways for interoperability with DLT platforms outside Bank Indonesia.



³⁰ With this use case, the Digital w-Rupiah platform will be seamlessly connected by 3I with BI-APS (formerly BI-ETP), BI-RTGS and BI-SSSS.



Digital Rupiah Development Synergy

The Project Garuda is a national scale initiative. Apart from having a central banking dimension, the Project Garuda also has a strong national flavor considering the position of the Digital Rupiah, as a national effort to maintain the sovereignty of the Rupiah currency. The effectiveness of its implementation will be determined by the formation of an end-to-end, cross-sectoral ecosystem which will, of course, involve all stakeholders from the supply line to the demand line. On this basis, the support of all stakeholders is key to the success of the Project Garuda. Bank Indonesia will actively communicate with all stakeholders regarding the development plans for the Digital Rupiah through the issuance of consultative papers, focus group discussions (FGD) and the publication of technical reports from each experimental stage.

Synergy with stakeholders is an important part of developing the Digital Rupiah. The development of Digital Rupiah requires support beyond the areas of Bank Indonesia's authority in accordance with laws and regulations. Formal legal adjustments, for example, require the support of the Government and the legislature. In addition, public involvement in the pilot phase is a key aspect that guarantees the effectiveness of implementing the Digital

Rupiah design. Without adequate public support, the adoption rate of Digital Rupiah will not be high and the ultimate goal of developing Digital Rupiah will be difficult to reach. For this reason, close cooperation and synergy between financial authorities, ministries and related institutions and industry are a prerequisite for success of the Project Garuda. Coordination and cooperation can be optimized through various coordination forums across ministries and institutions as well as between ministries/institutions and businesses. At the national level, the synergy in the Project Garuda will target seven non-exhaustive priority areas, namely: (i) monetary and payment systems; (ii) financial system stability; (iii) government transactions; (iv) national security; (v) consumer protection; (vi) international relations; and (vii) crypto asset trading, including the use of Digital Rupiah in the Web 3.0 ecosystem.

Synergy with stakeholders is an important part of developing Digital Rupiah



