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EQUITABLE GROWTH, FINANCE & INSTITUTIONS INSIGHT

Financial Solutions to Support the Social and Solidarity Economy and the Role of Development Banks

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Acronyms & Abbreviations

BNDES	Banco Nacional de Desenvolvimento Econômico e Social
BRI	Bank Rakyat Indonesia
BUMDes	village-owned enterprise (Indonesia)
CGAP	Consultative Group to Assist the Poor
fintech	financial technology
FPOs	farmer producers' organizations
GDP	gross domestic product
ILO	International Labour Organization
JLGs	joint liability groups
KUR	Kredit Usaha Rakyat (People's Business Loan)
MSME	micro, small, and medium enterprise
NABARD	National Bank for Agriculture and Rural Development (India)
NGO	nongovernmental organization
NPL	nonperforming loan
PODF	Producer Organization Development Fund
PoS	point-of-sale
PNM	Perpustakaan Negara Malaysia
PRODUCE	Producers Organization Development and Upliftment Corpus
RCT	randomized control trial
SDG	Sustainable Development Goal
SHG-BLP	Self-Help Group – Bank Linkage Programme
SME	small and medium enterprise
SSE	social and solidarity economy
UNTFSSSE	United Nations Task Force on Social Solidarity Economy



Executive Summary

Generating quality jobs is a major concern of policy makers around the world who want to ensure sustainable growth and social cohesion. This concern has led to greater interest in supporting the social and solidarity economy (SSE). The SSE focuses on supporting productive structures managed by the producers themselves and brings together multiple actors to improve economic and social welfare. These actors include small producers, producers' cooperatives, and nongovernmental organizations, among others. SSE structures can operate in all economic sectors, but they typically operate in labor-intensive sectors. The SSE sector has been very dynamic in recent years, growing faster than the rest of the economy in many countries and providing flexible forms of employment that give workers more power to decide how to organize their jobs.

This paper reviews financial solutions, also referred to as products, that were developed by private and public financial institutions to support the SSE. The purpose of this review is to draw lessons and insights for development banks that are also considering developing these products to support the SSE. As development banks increasingly align their activities with the United Nations' Sustainable Development Goals (SDGs), there is greater interest in products that support the SSE.

Development banks often play an important role in supporting the social and solidarity economy with financial solutions, including working in partnership with other actors as part of an ecosystem. Development banks typically partner with other actors that provide business development services to producers' structures in order to improve their economic viability; for example, the banks sometimes operate funds provided by partners. Financial solutions typically include three features: (a) support for the transformation of producers' groups into savings and microcredit groups, thus increasing the funds and the financial ecosystem available to these producers; (b) lending money to these groups (directly or through financial intermediaries); and (c) providing guarantees to the producers' structures. The experience of

India's National Bank for Agriculture and Rural Development (NABARD) illustrates how a development bank operating through financial intermediaries can support the SSE. In addition, the KUR Micro case study underlines the importance of having well-aligned messages from politicians; appropriate incentives for borrowers and lenders; and expertise in credit origination, monitoring, and digital capabilities when operating as a first-tier lender. The impact of these and other financial solutions developed to support the SSE should be rigorously evaluated.

In recent years, digital platforms have been increasingly used to facilitate access to the market for small producers, and development banks can either create these platforms or partner with them to channel funding. The platforms, in addition to providing funding and market access, provide benefits from the digitalization of sales because transactional information from the platform can be used to develop alternative credit-scoring models that enhance the financial access of producers.



Introduction

The social and solidarity economy (SSE) supports productive structures that focus on social welfare as opposed to profit maximization. The productive structures are managed by the producers themselves rather than by a third-party intermediary. The social and solidarity economy framework brings together multiple actors—such as producer cooperatives, nongovernmental organizations (NGOs), associations, and foundations—for the purpose of improving economic and social welfare. The following excerpts represent some well-known definitions of the social economy, solidarity economy, or SSE adopted by prominent international organizations.

- *International Labour Organization (ILO)*. “The social economy is a concept designating enterprises and organizations, in particular cooperatives, mutual benefit societies, associations, foundations and social enterprises, which have the specific feature of producing goods, services and knowledge while pursuing both economic and social aims and fostering solidarity.” (ILO 2009)
- *United Nations Task Force on Social and Solidarity Economy (UNTFSSSE)*. “Social and Solidarity Economy refers to the production and exchange of goods and services by a broad range of organizations and enterprises that pursue explicit social and/or environmental objectives. They are guided by the principles and practices of cooperation, solidarity, ethics and democratic self-management. One of the main reasons of the emergence of SSE is that the needs of large groups of people, in developed as well as in developing countries, are neither met effectively by conventional markets nor by the State. SSE is fundamentally about crafting a form of economy that is centred on social protection and equality. Part of a rapidly growing worldwide movement, SSE organizations and enterprises attempt to reassert social control over the economy by prioritizing social objectives above profit maximization, recognizing the role of collective action and active citizenship for both economic and political empowerment of disadvantaged or fragile groups in society, and reintroducing notions of ethics, sharing, equity and democracy in economic activities.” (UNTFSSSE 2016)

- *Intercontinental Network for Promotion of Social Solidarity Economy (RIPESS)*. “The SSE is an alternative to capitalism and other authoritarian, state-dominated economic systems. In SSE ordinary people play an active role in shaping all of the dimensions of human life: economic, social, cultural, political, and environmental. SSE exists in all sectors of the economy – production, finance, distribution, exchange, consumption and governance. It also aims to transform the social and economic system that includes public, private and third sectors. SSE is not only about the poor, but strives to overcome inequalities, which includes all classes of society. SSE has the ability to take the best practices that exist in our present system (such as efficiency, use of technology and knowledge) and transform them to serve the welfare of the community based on different values and goals.” (RIPESS 2015)

SSE structures encourage employment, often targeting vulnerable populations, and have an important countercyclical role in preserving and creating employment during crises. Although SSE structures can operate in all economic sectors, they typically focus on labor-intensive sectors because of their governance and other characteristics. In the case of social enterprises, the objective is often to create employment for vulnerable populations. Population and social trends will increase the demand for social, personal, and general-interest services, which cannot be automatized; nor can they be delivered efficiently by standard enterprises because their economies of scale are limited. SSE structures can meet this demand for services by offering workers flexible employment opportunities within entrepreneurial organizations that can provide structure and security as well as participation in the decision-making process. As noted by Borzaga, Salvatori, and Bodini (2017), “The SSE can provide workers in the informal economy with different forms of association (including through the cooperative form) that can help them set up new enterprises, enhance their market power and facilitate access to various types of services, ranging from finance to business support services.” The anticyclical nature of cooperatives and other SSE organizations is well-documented; throughout their history, cooperatives have emerged during periods of economic hardship as one of the most effective ways to

preserve income and employment (Birchall and Ketilson 2009). Between 2009 and 2013, as the Italian economy faltered, the number of employees in conventional enterprises decreased by 500,000 units while the cooperative sector added 102,000 jobs, representing a 10 percent increase (Borzaga, Salvatori, and Bodini 2017).

The SSE plays an important role in many countries.

Comprehensive data on the size of the SSE across countries are not available for two reasons: (a) there are no standard definitions for data collected by enterprise type and (b) there are gaps in the data that are collected. Despite these obstacles, the United Nations Inter-Agency Task Force on the Social and Solidarity Economy (UNTFSSSE 2016) has reported some examples of the size of the SSE. Worldwide, cooperatives provide 100 million jobs (20 percent more than multinational enterprises). In the European Union, cooperatives accounted for 4 percent of gross domestic product (GDP) in 2010, and membership included 50 percent of citizens, generating 6.5 percent of paid employment.

This paper reviews financial solutions developed by private and public financial institutions to support the SSE.¹ The purpose of the review is to draw lessons and insights for development banks that are considering developing new products for the SSE. The United Nations’ Sustainable Development Goals (SDGs) have become a benchmark for public policy at a variety of levels, and many development banks are aligning their strategies to attain these goals.² The SSE can support the achievement of several SDGs, including SDG 8 (growth and decent work), SDG 12 (sustainable consumption and production patterns), and SDG 5 (gender equity) (Villalba-Eguiluz, Egia-Olaizola, and de Mendigueren 2020). Section 2 of this paper reviews the financial solutions to support the SSE, section 3 reviews impact studies of these solutions, and section 4 provides conclusions and recommendations.

1. The terms solutions, products, and interventions are used interchangeably throughout this paper.

2. During the first Finance in Common Summit in November 2020, public development banks from around the world committed to aligning their activities with the SDGs (see <https://financeincommon.org/financing-the-2030-agenda-an-sdg-alignment-framework-for-public-development-banks>)



2

Financial interventions supporting the Solidarity Economy Products

State-Owned Banks

Several state-owned banks offer microcredit to foster the creation of associations or cooperatives of producers in order to develop viable productive projects that could be funded by a financial institution through customized financial solutions; these state-owned banks typically offer microcredit in partnership with other public institutions and NGOs. The most notable solutions implemented by development banks create an entire ecosystem in the rural marketplace, encompassing not only access to financial services but also the promotion of supplier-borrower linkages and the digitization of financial service delivery. The type of financial support ranges widely and can include the following: (a) loan rediscount facilities, credit cooperatives, and lenders catering to the SSE; (b) conventional microcredit products at subsidized interest rates; (c) backing for the development of savings and lending groups at the rural level; (d) grants and technical support for farmer cooperative groups; and (e) fee-sharing schemes with existing clients to promote broader financial access. The National Bank for Agriculture and Rural Development (NABARD) in India and Bank Rakyat Indonesia (BRI) in Indonesia are two well-known state-owned banks that have created customized products to support the solidarity economy in their respective countries.

NABARD

NABARD is an Indian development bank serving as an apex financing agency for institutions that fund developmental activities in rural areas. NABARD's mission is to "promote sustainable and equitable agriculture and rural development through participative financial and non-financial interventions, innovations, technology and institutional development for securing prosperity."³ NABARD performs an extensive range of noncredit and credit-related functions.

3. NABARD Citizen's Charter. See <https://www.nabard.org/fitrcontent.aspx?id=492#:~:text=MISSION.and%20institutionaldevelopment%20for%20securing%20prosperity>.

On the noncredit front, the bank supports the financial inclusion efforts of regional and cooperative banks in India. Through its financial inclusion fund, NABARD supports financial literacy programs and the deployment of banking service kiosks and point-of-sale (PoS) terminals in underbanked parts of India. The bank also assists in building the capacity of regional lenders to strengthen access to financing in rural areas. In terms of credit-related activities, NABARD extends refinance support to rural financial institutions for both long- and short-term loans, and it lends directly to state governments to support the development of rural infrastructure. NABARD funds its operations with resources from government funds, mandatory investments by banks that fail to meet targets for lending to priority sectors, and the market (including from other banks). Following are some of NABARD's most successful products that support the solidarity economy:

SELF HELP GROUP – BANK LINKAGE PROGRAMME

The Self Help Group – Bank Linkage Programme (SHG-BLP) pioneered by NABARD links small, mostly female, informal savings groups to formal lending institutions (NABARD 2018). An SHG consists of 10 to 20 individuals within a village who have the same savings goals and socioeconomic characteristics. The savings contributed by each member are lent to other members in the SHG according to their needs. This financial structure is similar to that of a *tanda*, a widespread savings and credit tool in Mexico. Under the SHG-BLP, NABARD provides 100 percent refinance to banks that provide external financing to an SHG. Refinance lending occurs at an annual interest rate of 8.35 to 8.45 percent, about 150 basis points (b.p.) below average bank lending rates in India (Reserve Bank of India 2021). Lending banks have the discretion to determine the interest rate charged to SHGs. The SHG-BLP initiative has about 3,000 partners, and to date, it has enabled about 100 million households to gain access to financing by linking over 11.8 million SHGs to savings and over 6.7 million SHGs to credit, making it one of the largest microfinance initiatives in the developing world.

NABARD has launched several initiatives to expand and digitize SHGs. During the 2019/20 fiscal year, NABARD

promoted women-only SHGs in 150 districts identified as being backward or affected by left-wing extremism (NABARD 2020a). The initiative provided INR1.39 billion (\$18 million) in grant assistance and created about 211,000 savings-linked SHGs. Since 2015, NABARD has rolled out project EShakti, which creates a secured digital database of SHGs and their members, and to digitize and standardize recordkeeping by SHGs. The database reduces lending-related transaction costs by allowing banks to digitally review SHG performance data. As of March 31, 2022, NABARD had brought 1.27 million SHGs onto EShakti's online portal, 0.72 million of which are credit-linked to banks.

JOINT LIABILITY GROUPS

NABARD provides full refinance support to banks that lend to joint liability groups (JLGs). JLGs are small groups consisting of 4 to 10 members that follow the joint liability credit model, wherein each group member assumes the credit risk of the other members. JLGs rely on within-group monitoring to enforce repayment, and its members are often part of the same productive structure. This lending model is similar to that of *Compartamos Banco*, which provides group credit to women and merchants in Mexico, with a minimum group size of 5 and 10 borrowers, respectively.⁴ However, NABARD is a second-tier lender to JLGs as it is to SHGs. It does not assume the credit risk of a group but instead provides 100 percent refinance support to lending banks at an annual rate of 8.35 to 8.45 percent, the same rate that it charges SHGs. In FY 2021/22, 5.4 million JLGs received a loan, the average size of which was INR 208,000 (US\$2,600) (NABARD 2020b). In addition, NABARD provides grants to JLGs to build capacity. As of March 31, 2020, NABARD disbursed INR1.98 billion (\$26 million) to promote about 109,400 JLGs across India.

PROMOTION OF FARMER PRODUCERS' ORGANIZATIONS

NABARD provides extensive grant support to promote farmer producers' organizations (FPOs), legal entities formed by primary producers in India. NABARD contends that the collectivization of agricultural production is a key tool

4. Additional terms available at <https://www.compartamos.com.mx/compartamos/credito/credito-grupal>.

for increasing farmers' bargaining power, market linkages, and market access. In order to promote the formation and development of FPOs, NABARD provides financial assistance to these organizations through one of two funds.⁵ Launched in 2011, the Producer Organization Development Fund (PODF) provides need-based financial support to FPOs to facilitate credit access, capacity building, and market linkages. NABARD also uses the PDOF to incubate new businesses and to advance information and communication technology methods in FPO management. New FPOs receive Re 500,000 (US\$6,630) for business development purposes. As of March 31, 2022, the total available PODF funds stood at Re 3.32 billion (US\$42 million), and 4,196 FPOs were registered to receive support (NABARD 2020a). NABARD launched its Producers Organization Development and Upliftment Corpus (PRODUCE) Fund in the 2014/15 financial year to promote new FPOs that primarily consist of small-scale and marginal farmers. As of March 31, 2020, 2,093 FPOs were registered under this fund, 527 of which were credit linked, and 1,315 had direct access to agricultural markets.

NABARD and its subsidiary NABKISAN also provide loans and credit guarantees to FPOs. NABKISAN Finance Ltd. provides uncollateralized credit to FPOs, leveraging the partial credit guarantees provided to FPOs by different development organizations, such as Tata Trust. During the 2019/20 financial year, NABARD piloted an arrangement that also provided guarantees to the FPOs financed by its subsidiary.

OTHER INITIATIVES

NABARD also undertakes many livelihood initiatives for women. These include the Livelihood and Enterprise Development Programm (LEDP) and Micro-Enterprise Development Programme (MEDP). In FY 2021/22, 357 LEDPs used Re 13.80 billion (US\$0.17 billion) to create sustainable livelihoods for 46,823 members by upgrading their skills and extending support for providing bank credit.

Bank Rakyat Indonesia

Bank Rakyat Indonesia (BRI), one of the largest banks in Indonesia, provides a variety of financial products and services to micro, retail, and corporate customers. BRI operates as a limited liability company, and the government of Indonesia owns 70 percent of its shares. It is a universal bank that serves consumers, corporations, and state-owned enterprises. The bank focuses particularly on micro, small, and medium enterprises (MSMEs), providing several types of lending and savings products to these entities. In recent years, BRI has emphasized the digitization of many of its services and has developed a digital loan underwriting system (BRISPOT) and a mobile banking application (BRImo). The bank also aims to create a digital ecosystem to offer services beyond its core business. For example, it has announced partnerships with financial technology (fintech) companies and has launched an online marketplace to meet this goal. Although BRI offers a vast array of products, the most applicable to the SSE are described in the following sections.

PEOPLE'S BUSINESS LOAN (KREDIT USAHA RAKYAT SUPER MICRO)

Kredit Usaha Rakyat (KUR) Super Micro provides new microentrepreneurs with access to credit for the first time at subsidized rates without collateral or onerous documentation requirements. Launched by the government of Indonesia in 2020 to support the economy during the COVID-19 pandemic, KUR Super Micro targets ultra-micro customers, employees who were laid off, and homemakers with productive businesses. Eligible borrowers must never have accessed another government-backed loan (that is, a KUR loan). Loan size is capped at Rp 10 million (US\$709) per borrower, and the maximum term is three years for a working capital loan and five years for an investment loan. Grace periods can be offered. The government provides a generous interest subsidy to participating financial institutions (such as BRI) that issue the KUR Super Micro loan. This subsidy includes a credit guarantee fee that issuing banks can pay to credit guarantee companies if they want, although issuers are entirely responsible for funding the loan capital. Annual interest

5. NABARD, "About Us," <https://www.nabard.org/content.aspx?id=470>.

rates are held at 6 percent. The loans require no additional collateral. Documentation requirements are minimal; only a certificate issued by the village elders stating the business type and period of operation is required. Businesses do not have to be established for some minimum amount of time to apply for a loan, but if they have operated for fewer than six months, they must be part of a business group or training program, or the applicant must have a family member with a viable business.

KUR Super Micro is part of a set of government-subsidized loan programs that target feasible but nonbankable firms.

The first KUR program was launched in 2015 and has grown rapidly since then, from 1 million loans to 7.4 million loans as of 2021; loan amounts have increased 16 times. In 2022, it is envisioned that KUR Super Micro will account for about 6 percent of all KUR credit, whereas KUR Micro and KUR Small account for 60 and 30 percent of total KUR credit, respectively. BRI originates about 70 percent of all KUR loans, building on its extensive network and brand recognition. KUR Super Micro is part of a series of graduated loan products that ultra-micro customers may access incrementally to receive commercial financing, as shown in figure 1, panels a and b. After accessing KUR Super Micro loans, customers can grow their business capacity and upgrade to a KUR Micro loan. They can then further expand their businesses by borrowing larger amounts through a KUR Small loan and eventually become self-sufficient enough to access credit through commercial—that is, nonsubsidized—channels. However, there is limited evidence that borrowers who receive KUR loans can successfully “graduate out” and receive nonsubsidized loans.⁶ Annual fiscal expenditures on KUR total approximately Rp 13 trillion (US\$900 million), representing 0.1 percent of Indonesia’s GDP and 85 percent of the government’s budget for business support programs.

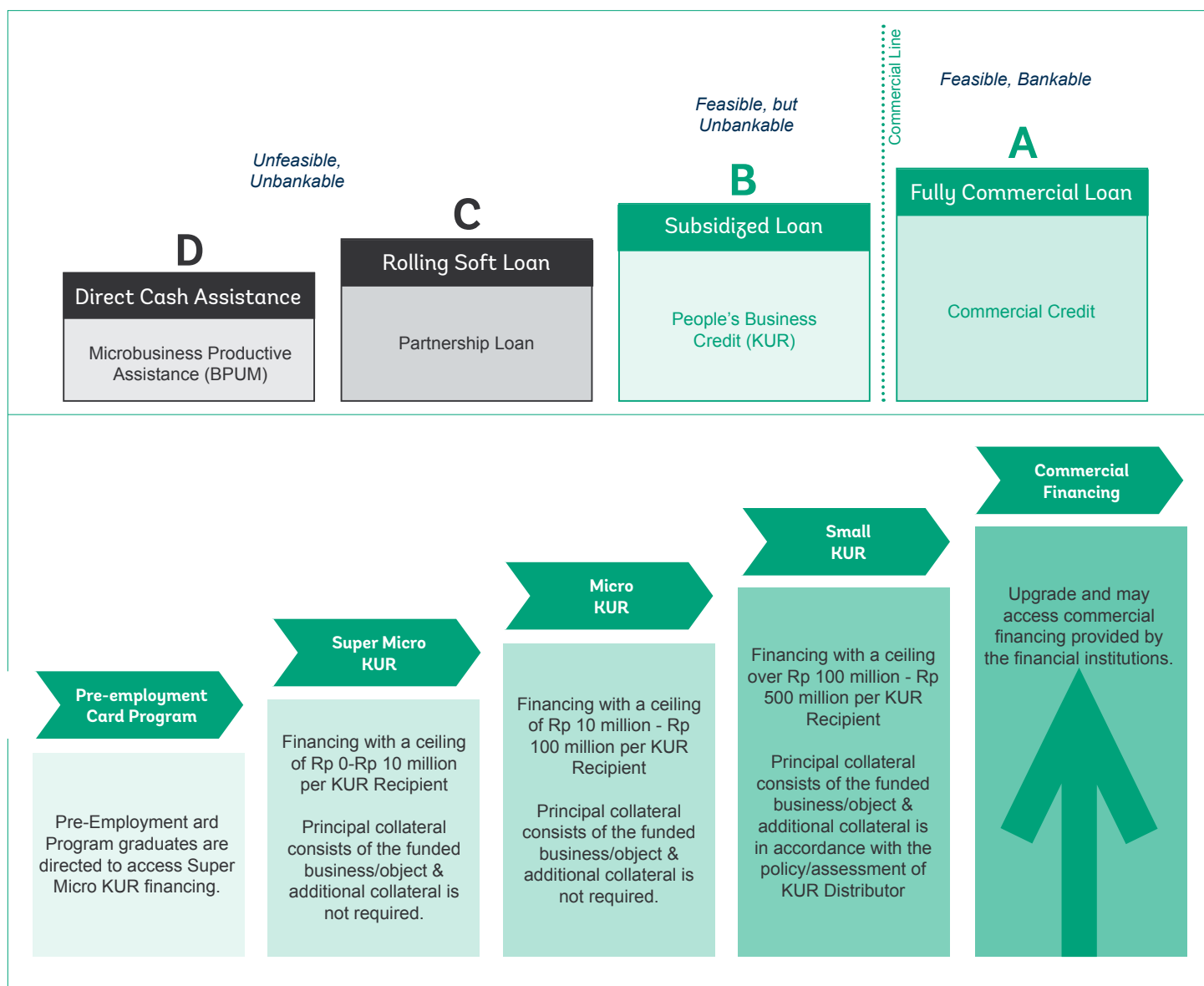
Since they were launched in 2020, KUR Super Micro loans have been successfully distributed to more than 1 million borrowers. By the end of 2021, total outstanding KUR Super Micro loans stood at RP 10.2 trillion (US\$712 million), funding more than a million borrowers. BRI has a 27,000-person sales force dedicated to the program, and the sales staff members can process loan applications on their smartphones. In addition, BRI has off-taker cooperation agreements with

business groups and cooperatives to process their members’ loan applications.

BRI’s KUR Super Micro portfolio is still young, but so far, it appears to be quite sound. This achievement can be explained by three factors: (a) high-level policy messages emphasizing the need to repay, (b) low rates, and (c) adequate incentives for borrowers and lenders. The nonperforming loan (NPL) ratio for loans distributed in 2021 stood at 0.83 percent, an extremely low figure given the risk of the borrowers. Contrary to the experience in other countries in which emergency credit programs are perceived as subsidies, there is great emphasis in Indonesia on the loan nature of the program and the obligation to repay. This message has been communicated by all policy makers, including the president of Indonesia. The low interest rate facilitates repayment. Furthermore, BRI follows a rigorous credit origination process, assessing repayment capacity through interviews with borrowers to build an expenditure and income profile. Repayments are capped at 70 percent of disposable income. BRI’s workforce knows the regions and potential customers well, and employee bonuses provide incentives to maintain portfolio quality. Borrowers who repay a loan can graduate to larger loans and access other government programs.

6. Borrowers may receive KUR Micro loans multiple times with a lifetime maximum loan amount of Rp 200 million. There is no lifetime limit for firms in the production sector.

Figure 1:. KUR Super Micro's Position in the Client Financing Ladder



Source: Bank Rakyat Indonesia 2022.

Note: p. a. = per annum.

KUR Super Micro is a key component of the Ultra Micro Ecosystem, envisioned and recently launched by BRI. On June 14, 2021, BRI announced its intention to establish what it termed the Ultra Micro Ecosystem, a partnership with two other state-owned enterprises, Pegadaian and Perpustakaan Negara Malaysia (PNM). Specifically, BRI conducted a rights issue valued at Rp 95.9 trillion (US\$6.7 billion) to establish the Ultra Micro Holding Company involving itself, Pegadaian,

and PNM. The newly formed entity aims to provide wider financial access for ultra-micro customers in two ways. First, it has created consolidated banking outlets (called Senyum Outlets) through which customers can access the entire range of products offered by BRI, Pegadaian, and PNM. Second, it allows customers to bundle complementary financial products that were previously offered separately by the three entities (BRI 2021b).

Although the distribution and performance of KUR Super Micro have been impressive, the impact of these loans on a firm's productivity and financial deepening remains an open question. The popularity of KUR Super Micro suggests that consumers are benefiting from access to inexpensive financing and are using the product to address their working capital and investment needs. However, most studies that have evaluated the broader KUR product have relied on borrower surveys or interviews with KUR stakeholders. As such, they have been unable to ascertain the causal impact of KUR access on financial metrics of MSME performance, such as revenues, employees, and capital expenditures.

WAREHOUSE RECEIPT LOAN

BRI provides warehouse financing to farmers and farmer cooperatives through the Warehouse Receipt Loan. Unlike KUR Micro and KUR Super Micro, the Warehouse Receipt Loan is a form of secured lending. The loan size is capped at 70 percent of the warehouse receipt value—that is, the value of agricultural goods stored in a warehouse that is used as collateral for the financing. The effective annual interest rate on the loan is 6 percent, and the maximum loan term is six years. Through the loan, BRI promotes the collectivization of farming activities. Individual farmers can apply for the loan only after joining with others and submitting a cooperative legal entity approval letter and a list of farmers who are active members of the cooperative. Existing cooperatives and farmer groups are also eligible for credit.

BRILINK

The BRILink branchless banking service supports both employment and financial inclusion in Indonesia. BRILink is an innovative program through which BRI's customers become agents of the bank and provide banking services such as transfers, deposits, bill payments, and cash withdrawals to other customers (BRI 2021a). BRILink agents earn income from these services through a fee-income-sharing scheme with BRI. The product speaks to the solidarity economy because it creates income for the agents while improving financial inclusion for customers who are not agents. As

of December 31, 2020, 504,233 agents operated across Indonesia and generated Rp 1.16 trillion (US\$82 million) in fee-based income. (BRI 2021a).

VILLAGE-OWNED ENTERPRISES (BUMDES) AND BRILIAN VILLAGE PROGRAM

BRI supports Indonesia's village economy by providing training, financial literacy, and capacity-building services to village-owned enterprises, or BUMDes. A BUMDes is a business entity owned and operated by village members that manages village assets and businesses. Since 2017, BRI has collaborated with a rural ministry to provide services to BUMDes, such as financial literacy education, entrepreneurship training, and guidance related to establishing BUMDes. In addition, as of year-end 2020, BRI had transformed 11,209 BUMDes members into BRILink agents, thereby enabling a BUMDes to earn additional revenues (BRI 2021a). To further support BUMDes, BRI started its BRILian Village Program in 2020; under the program, 10 villages determined to have the most innovative approach to combating COVID-19 were selected for additional mentoring.

Technology-Enabled Products for the Solidarity Economy

A recent, more innovative approach to supporting the solidarity economy exploits technology to develop and leverage e-commerce platforms that connect businesses to businesses or businesses to consumers. Many of these platforms also perform analytics on supplier and customer payment data to provide financial services either directly or in partnership with other lenders. Although the range of products is diverse in both scope and geography, most offerings share four key features:

- Payment data are sourced and incorporated from e-commerce platforms.
- Artificial intelligence and machine learning techniques are trained on payment data to assess a borrower's creditworthiness.

- E-commerce platforms partner with participating banks and nonbank financial institutions to disburse credit; some platforms do not use their own capital for lending purposes.
- Loan products are used to finance short-term working capital needs rather than long-term capital expenditures.

In light of the growing popularity of e-commerce platforms during the COVID-19 pandemic, most market participants announced significant expansions of these technology-enabled products in 2021. Some leading examples of such products that are in the marketplace are described in the following sections.

BNDES Card (Cartão BNDES)

The Brazilian Development Bank (Banco Nacional de Desenvolvimento Econômico e Social; BNDES) issues its credit card to MSMEs and individual microentrepreneurs to finance investment expenditures in the online BNDES marketplace. The BNDES Card exploits technology to reduce the administrative costs involved in credit origination and monitoring for MSMEs while mitigating risk by ensuring that credit is used for productive purposes. MSMEs with annual gross sales up to R\$300 million (US\$61 million) and individual microentrepreneurs are eligible for the card. These entities must also be formally registered enterprises, have headquarters in Brazil, and satisfy local regulatory and tax requirements. The card is issued by 1 of 10 partner banks.⁷ The issuing banks make the approval decision, determine the credit limit, and deliver the card to an applicant. They are also ultimately responsible for bearing the borrower's credit risk, although BNDES provides refinance support for any financing made available through the card. Prospective borrowers apply for the card through an online portal managed by BNDES. Once issued, the card can be used to make input purchases only from suppliers and distributors on the BNDES Card website.⁸ The credit limit per issuing bank is R\$2 million (US\$404,000), and borrowers make installment payments over 3 to 48 months. A prefixed monthly interest rate, published transparently on the BNDES Card website, applies to all credit cards regardless of the issuing bank. As of June 23, 2021, the monthly interest rate stood at 1.07 percent. To keep borrowers fully informed

of the loan terms, BNDES has included a financing simulator (Simulador) on its website, which allows borrowers to view repayment schedules associated with any financed amount.⁹

Suppliers and distributors request accreditation online through the BNDES Card platform. BNDES analyzes requests from suppliers and distributors and decides whether to include them in the catalogue of products and distributors. There are about 300,000 items available for purchase, including machinery and equipment, inputs, training, freight, and installation services. Prices for products and services are available online, or MSME's can request them from the supplier. MSMEs can also make purchases directly in the platform by registering the information of the transaction there or indirectly on the supplier page by using the BNDES Card. Distributors must have (a) an e-commerce field or more than 100 physical stores, (b) gross revenues above R\$300 million, and (c) a portfolio of more than 1,500 items that match the products authorized by BNDES. Suppliers can be companies of any size.

BNDES has also issued the BNDES Agro Card (Cartão BNDES Agro) to meet the financing needs of individual rural producers. The eligibility requirements and loan terms for the BNDES Agro Card are similar to those for the BNDES Card. Only one partner bank (Sicoob) now issues the BNDES Agro Card. Borrowers must open an account at the issuing bank, which is used to collect repayments.

The BNDES Card program offers credit and fosters competition to reduce the price of inputs while providing suppliers and distributors with access to customers who have financing. The program is attractive to borrowers, suppliers, and financial intermediaries. Borrowers may obtain an attractive rate on a revolving credit of up to R\$ 2 million (about US\$500,000) and access to 73,000 licensed suppliers. Moreover, the publication of prices in the BNDES catalogue increases competition, another advantage for customers. For suppliers, the platform provides access to 655,000 customers with preapproved credit, eliminating credit risk. For financial intermediaries, the platform offers client and transactional information for developing and providing additional financial services even though the margin on the BNDES Card may be relatively small.

7. As of this writing, three of these banks do not allow borrowers to request a BNDES Card on the BNDES portal.

8. See <https://www.cartaobndes.gov.br/cartaobndes/>.

9. See https://www.cartaobndes.gov.br/cartaobndes/PaginasCartao/Simulador_PopUp.asp?Acao=S1.

An impact assessment conducted by BNDES (2019) showed that the expansion of its card from 2005 to 2012 led to increases in local labor market employment without corresponding increases in local GDP. Between 2005 and 2012, the BNDES card created a large expansion in financing. By 2012, about 200,000 establishments had used the card and received approximately R\$ 9 billion (US\$1.8 billion) in financing. To evaluate the impact of this expansion on economic activity at the level of the local labor market, or microregion, researchers used an instrumental variables approach. In the first stage, they instrumented the value financed by the BNDES Card with a plausibly exogenous measure of regional credit supply based on the *availability* of the BNDES Card at the sector level. In the second stage, researchers analyzed the relationship between local labor market economic variables and the predicted measure of BNDES Card financing obtained from the first stage. The results showed that a 1 percent increase in credit card financing led to a 0.1 percent rise in total microregion employment. However, the analysis revealed no meaningful increases in the level of local GDP per capita or GDP per formal worker.

Indonesia Mall

The Indonesia Mall links MSMEs to the e-commerce marketplace. Launched in 2018, the Indonesia Mall is a platform that enables MSMEs to sell and market their products on several well-known e-commerce marketplaces in Indonesia.¹⁰ The platform's e-commerce partners include Tokopedia, Shopee, Bukalapak, Blanja.com, Blibli.com, and Qoo10 (Asian Banking and Finance, n.d.). BRI provides a comprehensive range of services to Indonesia Mall's registered sellers, including end-to-end shipping and logistics support, marketing assistance, business consulting, access to BRI accounts, and venture capital financing. According to BRI, more than 2,000 MSMEs joined the platform in 2019 and, on average, they reported a 40 percent increase in revenues

Mercado Libre

Mercado Libre, the largest e-commerce and payments platform in Latin America, extends working capital lines of

credit to its sellers through its Mercado Crédito business. Launched in 2016, Mercado Crédito operates in Argentina, Brazil, and Mexico.¹¹ The business uses a proprietary credit risk model trained on unique seller data to disburse working capital loans to merchants on the Mercado Libre Marketplace. The credit model leverages machine learning and artificial intelligence algorithms that the company initially used to prevent fraud. Merchants can borrow a percentage of their monthly sales volume at a fixed interest rate. Loans are short term, ranging from 3 to 24 months. Since the borrowing merchants' payments flow through Mercado Pago, Mercado Libre's digital payments platform, the company can directly collect loan repayments from the merchants' existing sales activity. This combination of access to unique seller data and the direct collection of principal and interest payments significantly reduces the credit risks for Mercado Libre even when the underlying loan is unsecured. In 2017, Mercado Crédito expanded its business to offer consumer credit to buyers, leveraging consumer payment data from the Mercado Libre marketplace. Through these products, Mercado Libre has been able to boost financial access for merchants and sellers who are generally excluded from formal credit markets. As of December 31, 2020, total loans disbursed through Mercado Crédito stood at \$402 million.

Jumia

Jumia, a pan-African e-commerce platform, partners with lenders to provide financing to its sellers through its Jumia Lending product. Jumia's platform includes an online marketplace, a logistics service that facilitates package delivery, and the JumiaPay digital payments product.¹² Through the Jumia Lending product, sellers on the Jumia platform can access unsecured credit by borrowing from third-party financial institutions such as microcredit lenders and banks. Jumia facilitates the lending process by originating the loan application on the sellers' behalf. Prospective borrowers apply for a loan directly on Jumia's website. The company also provides its bank partners with data on its sellers' creditworthiness based on seller activity on the platform. The Jumia Lending product is available in the Arab Republic of Egypt, Ghana, Ivory Coast, Kenya, Morocco, and Nigeria. Jumia plans to expand its services to other African countries in

10. See <https://bri.co.id/en/web/indonesiamall/>.

11. For the Mercado Libre Form 10-K 2020, see <https://investor.mercadolibre.com/sec-filings/sec-filing/10-k/0001562762-21-000079>.

12. For the Jumia Technologies AG Form 20-F 2020, see <https://d18rn0p25nwr6d.cloudfront.net/CIK-0001756708/4875d9cc-e21d-4a0b-b5a7-5d134c3cd13d.pdf>.

the medium term. Jumia's sellers are usually small businesses with no access to formal credit. They must meet certain minimum criteria to receive financing. For example, to qualify for a loan in Nigeria, sellers must (a) be on the Jumia platform for at least six months, (b) earn six-month average monthly revenues in excess of N100,000 (US\$244), and (c) have a six-month average number of items sold of greater than 25 items. Loan tenure ranges from one to six months, and loan amounts range from N300,000 to N2 million (US\$730 to US\$49,000).¹³ The monthly interest rate is 3 percent to 4 percent.

Flipkart

Flipkart, a leading e-commerce marketplace in India with 100 million registered users, operates a seller financing program called Flipkart Growth Capital. The financing program offers both secured and unsecured loans and caters to MSME sellers on the Flipkart platform. Similar to Jumia's approach, Flipkart links sellers in need of financing to multiple third-party lenders (Flipkart 2021). Sellers can borrow from any lender. When sellers apply to the program, Flipkart automatically redirects them from its website to the lender's portal, reducing the application processing time. Loans are disbursed within 24 hours. Sanctioned loan amounts range from less than Re 500,000 (US\$6,700) to up to Re 50 million (US\$672,000). Annual interest rates are at least 9 percent, and loan tenure is up to 12 months (Flipkart 2019). In May 2021, Flipkart announced an expansion of the Growth Capital Program, as part of which the company introduced an "Early Settlement" option for its sellers. This option makes it easier for sellers to manage their cash flow by allowing them to receive order-related payments in advance.

Ant Group

Ant Group, an affiliate of Alibaba, provides loans to small and medium enterprises (SMEs) and individual entrepreneurs through MYbank, a fully digital bank in China. Started in 2015, MYbank primarily serves rural areas and SMEs. The bank follows what it terms a "3-1-0" lending model: potential borrowers complete an online loan

application in three minutes, get approved in one second, all with no human intervention (IFC 2020). MYbank accesses the borrowers' repayment data from Alibaba's financial services businesses, including Alipay. It then uses AI, computing, and risk management technologies to analyze more than 3,000 variables to determine a borrower's creditworthiness almost instantaneously. The number of SMEs served by MYbank stood at 35 million at the end of 2020, representing a 70 percent year-on-year increase since 2015. Despite this expansion, the bank's NPL ratio has remained relatively low at 1.52 percent. Although the bank does not publish loan terms, it reported that, since its inception, it has lent to more than 8.2 million women-led SMEs; the average loan size is \$5,700 (Ant Group 2020). In April 2020, MYbank announced a significant expansion program through which it aims to at least double the number of rural counties it serves by 2025 (Ant Group 2021).

Twiga Foods

Twiga Foods, a business-to-business technology platform that links farmers and food manufacturers to vendors, tested a blockchain-enabled lending platform for 220 food kiosks in Kenya. In partnership with IBM, Twiga piloted a lending product in 2018 that provided working capital loans to its clients who are food vendors (IBM 2018). To assess the creditworthiness of borrowers, IBM analyzed purchase records from mobile data and used machine learning techniques to develop credit scores. Once the scores were obtained, Twiga and IBM used blockchain technology to manage the lending process from end to end. The pilot lasted for eight weeks and disbursed about 220 loans at an average size of K Sh 3,020 (US\$30). The two companies reported that access to working capital financing increased retailers' profits by 6 percent, on average. Although the product has yet to be scaled up, it demonstrates the potential for technology to drive financial inclusion through the use of novel techniques such as machine learning and blockchain that, when combined, can significantly reduce transaction costs and create transparency in the lending process.

13. For statistics for Jumia Lending in Nigeria, see <https://vendorhub.jumia.com.ng/jumia-lending-black-friday-loans/>.

Findings from Impact Studies of Financial Solutions Developed for the SSE

Although limited empirical evidence is available on the impact of the specific financial solutions discussed in section 2, there is plenty of directional evidence on the broader effects of financial inclusion. A report published by the Consultative Group to Assist the Poor (CGAP) highlights the following relevant insights regarding the impact of financial services on low-income individuals (El-Zoghbi, Holle, and Soursourian 2019).

Access to financial services promotes consumption smoothing, resilience to shocks, and riskier but potentially more productive investments. In developing countries, access to financial services in the form of savings, credit, and insurance may promote consumption smoothing for many poor households that are vulnerable to economic shocks. Furthermore, financial services may encourage risk-averse households to make productive investments that may carry more risk but ultimately yield larger profits. Empirical evidence from various developing economies suggests that both hypotheses may be valid. Having access to mobile money—specifically, M-PESA in Kenya—allowed families to receive more remittances from a more diverse range of senders in response to a shock (Jack & Suri, 2014). A recent meta-analysis of the experimental literature on savings found that interventions that promote savings boost household consumption and food security (Steinert et al. 2018). For instance, households with access to savings through a low-fee bank account in Nepal were better able to deal with adverse health shocks (Prina 2015). On the credit front, after obtaining access to a digital credit product called M-Shwari in Kenya, households were significantly less likely to report having to reduce expenses after a shock (Bharadwaj, Jack, and Suri 2019). Access to insurance also appears to reduce liquidity risks for households, thus freeing up funds for riskier and more profitable investments. Farmers in Ethiopia who were given access to insurance products made more productive investments in their farms (Berhane et al. 2015), and farmers in Mali who were given access to insurance products made larger investments in their farms (Elabed and Carter 2014).

Business loans to microentrepreneurs produce modest but potentially heterogeneous results. In a review of six randomized controlled trials (RCTs) of microcredit, Banerjee, Karlan, and Zinman (2015) concluded that access to microcredit produces modest to negligible extensive margin effects; that is, access has little impact on business ownership, starts, and closures. The review also found no evidence of an increase in consumption among treated households. However, results on the intensive margin are much more promising. In a recent meta-analysis, Meager (2019) showed that microcredit has a negligible impact on households with no previous business experience. However, profits and revenues were higher for households that operated a business before receiving a loan.

Assessments of microloan programs at the local level found more positive effects, perhaps capturing spillover effects associated with access to credit. Breza and Kinnan (2021) analyzed the impact of an emergency ordinance in Andhra Pradesh, India, that halted all microlending in the state. The researchers found that this exogenous shock to credit supply reduced wages, earnings, and consumption in districts most exposed to the shock. It is noteworthy, however, that the study considered only districts outside of Andhra Pradesh, where no lending restrictions were imposed, showing that a reduction in access to credit can produce important general equilibrium effects. Similarly, a study in Kenya that provided timely loans to farmers made it easier for them to exploit price arbitrage opportunities—that is, the loans allowed them to buy grain at lower prices and to sell at higher prices (Burke, Bergquist, and Miguel 2017). The intervention not only increased the treated farmers' revenues and return on investment but also yielded large general equilibrium effects. In fact, nonborrowers reaped the majority of welfare gains in areas with a higher density of treated farmers.

Randomized experiments in which key features of a traditional microfinance contract were varied found that (a) regular repayments reduce business profitability and default, (b) group liability does not reduce default, and (c) more regular in-person meetings improve repayment. An experiment in India provided randomly selected borrowers with a two-month grace period before any repayment was due in contrast to a standard contract in which repayment began in the first few weeks after disbursement. This modification increased household income, business investment, and new

business creation (Field et al. 2013). However, it also created an increase in loan defaults, which was driven by borrowers engaging in riskier (though more profitable) business practices. In one randomized trial in the Philippines removed group liability from existing groups and additionally assigned newly formed groups to either individual or group liability. In both experiments, the groups still met in person (Giné and Karlan 2014). Moving to individual liability in either treatment arm did not affect loan default, but it did increase the number of new clients for the groups converted to individual liability. This result suggests that social capital generated through group meetings may encourage timely repayment even in the absence of “social collateral”—that is, an explicit obligation to assume the liability of defaulting group members. An additional experiment in India corroborates this hypothesis; newly formed borrowers were assigned to groups that met on a weekly or a monthly basis (Feigenberg, Field, and Pande 2013). The former schedule increased the long-term social interaction among borrowers, strengthened their willingness to pool their risk, and lowered loan default.

Female borrowers often are pressured to use microloan resources for other household needs, limiting the benefits of microcredit. A study on business loans in Uganda found that providing microcredit and business-skills training did not improve financial outcomes for female-owned businesses, but it did lead to large increases in profits and sales for male-owned enterprises that were offered loans (Fiala 2018). In their previously described review of six microcredit RCTs, Banerjee, Karlan, and Zinman (2015) also considered the impact of credit access on female decision power and independence at the intra-household level and found that it had a null effect on these empowerment indicators in three of the four studies that considered these outcomes. More recent research highlights the importance of women’s bargaining position in driving these results. A study in Ghana, India, and Sri Lanka showed that the null profit response for female-operated enterprises arises because women’s financial resources are usually diverted to their husband’s enterprises (Bernhardt, Field, Pande and Rigol 2019). When outcomes were evaluated at the household rather than the individual level, the study found that income gains at the household level were equivalent regardless of the gender of the person who received a grant or a loan. These results suggest that the impact of access to microfinance on women interacts in important ways with gender gaps that influence women’s position in the household and in society at large.

The digitization of credit increases convenience but raises concerns about consumer protections that require a strong oversight framework. The advantage of digital financial services such as automatic teller machines, debit cards, mobile money, and digital credit is that they lower transaction costs for customers, thereby leading to increased financial activity. Digital credit can, however, create significant consumer protection issues. In many contexts, consumers can access a digital loan almost instantaneously by using their cell phones. Although this reduction in transaction costs has many positive implications, it also raises the very real possibility that relatively uninformed consumers will sign up for credit products whose terms they do not fully understand. In the absence of a robust regulatory environment, these consumers may be misled into borrowing excessively or at high interest rates (Kaffenberger and Totolo 2018).

Digitization boosts the savings and benefits of credit access for women because it improves privacy and their sense of ownership over their individual finances. Because of their relative lack of bargaining power at the inter- and intra-household levels, women do not control their finances in many developing countries, so they value their privacy in managing their financial resources. Digital financial services improve privacy by giving women better control over their finances. In Tanzania, Bastian and coauthors (2018) found that digital accounts increased women’s savings and access to credit. Riley (2020) found that using mobile money instead of traditional cash disbursement to provide microloans led to business profits that were 15 percent higher for female borrowers in Uganda. The results were strongest for women who felt pressure to share their funds with family members.

Despite its benefits, digitization can weaken social networks and harm uninformed consumers. A study in India showed that the introduction of microfinance led to a shrinkage in social networks because borrowers relied less on existing social structures to fulfill their financing needs (Banerjee, et al., 2021). This effect was felt by both borrowers and nonborrowers in treated villages, suggesting that providing credit can impose a negative externality by reducing the size of informal network structures used for borrowing. The expansion of more digital forms of credit can be expected to yield similar results.

Conclusions and Recommendations

The social and solidarity economy focuses on supporting productive structures managed by the producers themselves and brings together multiple actors to improve economic and social welfare. These structures include microenterprises, agricultural producers, producers' groups and associations, and cooperatives, among others. An ecosystem of organizations, including NGOs, associations, and foundations, helps to organize and grow such structures.

Development banks have created savings and lending solutions in order to support SSE projects, and they often partner with other actors that support the economic viability of the projects. Savings and lending solutions typically include (a) support for the transformation of producers' groups into savings and microcredit groups, thus increasing the funds and expanding the financial ecosystem available to these producers, and (b) lending (directly or through financial intermediaries) and providing guarantees to the producers' structures. The most notable initiatives implemented by development banks in this context create an entire ecosystem in the rural marketplace, encompassing not only access to financial services but also the promotion of supplier-borrower linkages and the digitization of financial service delivery.

Digital platforms have been increasingly used to facilitate access to the market for small producers, and development banks can either create these platforms or partner with them to channel funding. In addition to providing funding and market access, the platforms offer additional benefits from the digitalization of sales because transactional information from the platform can be used to develop alternative credit-scoring models that subsequently enhance the financial access of producers.

Supporting productive SSE projects by providing credit involves lending to lower-income sectors that are riskier and politically sensitive. When lending directly, development banks need a strong risk management capabilities and a political environment that is conducive to sustainably financial lending. Productive SSE structures include microenterprises, small rural producers, and small producers' cooperatives, all of which can involve substantial credit risks. Political considerations can augment these risks if borrowers perceive support as subsidies as opposed to credit.

As demonstrated by the BRI experience in Indonesia, a sound portfolio depends on combining strong credit origination and monitoring practices with a supportive political environment that reinforces the fact that the loans are not subsidies and that they must be repaid.

Development banks can nonetheless effectively support the SSE in the absence of strong risk management and a supportive political environment by encouraging saving and lending through other intermediaries, including fintechs. NABARD offers a good example of how to support the SSE economy through savings products and by acting as an apex financial institution. The BNDES Card is a development bank solution that combines lending through financial intermediaries with a digital platform that not only provides access to markets but also digitizes payments generating useful information for developing new products. BRI also has developed a digital platform that offers logistics support. Institutions with more incipient technological capabilities could partner with existing platforms to provide credit through them by financing the platform and even entering into risk-sharing agreements with them.

Financial solutions developed to support the SSE should be rigorously evaluated. Microcredit interventions have been evaluated more than other solutions, and the findings have generally been positive, albeit heterogenous, depending on the intervention's design features. Programs and products developed to support the SSE should be evaluated rigorously, through, for example, RCTs, randomized trials, or quasi-experimental studies, all of which measure the effects of an intervention by comparing outcomes for intervention participants with outcomes for nonparticipants who have the same characteristics as participants. An impact evaluation is particularly important for subsidized programs because it would help to (a) assess their value for money and (b) determine the optimal duration of the intervention. Microcredit is the intervention that has been studied most rigorously. Overall, evidence at the borrower level suggests that microcredit has more positive effects when credits are directed to existing firms as opposed to new firms. At the local level, microcredit seems to have positive effects on income, suggesting that access to credit may have positive spillover effects. Women benefit less from microcredit disbursed directly in cash because of the family pressure to use the money for purposes other than investment purposes. Frequent payments and regular meetings improve the likelihood of loan repayment.



Appendix A: Lending Products



Table 1: Lending Products Summary— Development Banks

	NABARD		BRI		
Bank-Wide Statistics					
Total Assets	70,580		107,182		
Loans Outstanding	63,873		66,528		
Non-Performing Loans Ratio (%)	n.r.		3.0%		
	SHG-BLP	JLG	KUR Micro	Warehouse Receipt Loan	KUR Super Micro
Aggregate Statistics					
Loans Outstanding (USD Million)	14,336	20,541	n.r.	n.r.	614
Number of Customers - Outstanding	5,677,071	9,255,899	n.r.	n.r.	985,189
Loans Disbursed (USD Million)	10,302	11,024	8,289	n.r.	614
Number of Customers - Disbursed	3,146,002	4,179,499	4,351,148	n.r.	985,189
Loan Terms					
Tenor (Years)	1.5-5+ years	1.5-5+ years	3-5 years	<6 years	3-5 years
Interest Rate - Annual (%)	8.35-8.45%	8.35-8.45%	6%	6%	6%
Central Bank Policy Rate (%)	4%				3.5%
Average Loan Size (USD) - Disbursed	3,274	2,638	1,905	n.r.	623
Loan Size as Fraction of GDP per Capita	1.7	1.3	0.5	n.r.	0.2
Loan Terms					
Secured/Unsecured	Unsecured	Unsecured	Unsecured	Secured	Unsecured
Type of Liability (Individual/Joint)	Joint	Joint	Individual	Joint	Individual
Primary/Secondary Credit Provider	Secondary	Secondary	Primary	Primary	Primary

Source: NABARD statistics for the financial year ending March 31, 2020. BRI statistics for the year ending December 31, 2020. Exchange rates used to convert to US dollars are as of the respective fiscal year end dates. Exchange rate data sourced from the IMF and Bank Indonesia. Central bank policy rates are as of May 31, 2021, and are sourced from the Bank for International Settlements (BIS).

Note: n.r. = not reported.

Table 2: Lending Products Summary—Technology-Enabled Platforms

	BNDES Card	Mercado Credito	Jumia	Flipkart	Ant Group	Twiga Foods
	Brazil	Argentina, Brazil, Mexico	Nigeria, Kenya, Ivory Coast, Egypt, Morocco and Ghana	India	China	Kenya
Aggregate Statistics						
Loans Outstanding (USD Million)	n.r.	402	n.r.	n.r.	n.r.	n.r.
Number of Customers - Outstanding	n.r.	n.r.	n.r.	n.r.	35.07	220
Loan Terms						
Tenor	3 months - 3 years	3-24 months	1-6 months	12 months	n.r.	2 months
Interest Rate (%)	1.07%	Various, depending on merchant	3%-4%	>9%	n.r.	1%-2%
Interest Rate Type	Monthly	n.r.	Monthly	Annual	n.r.	Monthly
Loan Size (USD)	< 403,934	n.r.	732 - 48,819	6,723 -672,281	5,700	30
Loan Size as Fraction of GDP per Capita	< 56.8	n.r.	0.4 - 26.7	3.4 - 336.0	0.5	0.014
Loan Terms						
Secured/Unsecured	Unsecured	Unsecured	Unsecured	Secured & Unsecured	Unsecured	n.r.
Direct Lender (Y/N)?	N	Y	N	N	Y	Y

Source: Exchange rates used to convert to US dollars are as of June 23, 2021. Exchange rate data sourced from the IMF (if available) and country central banks.

Note: n.r. = not reported.

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