Advancing the Credit Scoring Ecosystem

Romora Edward Sitorus, Chief Economist, Program Management Office of Kartu Prakerja, the Coordinating Ministry for Economic Affairs, Republic of Indonesia
Fajrin Rasyid, Director of Digital Business, Telkom Indonesia
Ongki Kurniawan, Founder and CEO, Skorlife
Achmad Syarifuddin, Vice President, Regulatory and Partnership, Skorlife

Policy Brief

Keywords:
financial inclusion, credit scoring ecosystem, alternative data, information asymmetry

INTRODUCTION

Access to credit is a fundamental driver of economic empowerment and growth, enabling individuals and businesses to invest, expand, and build financial resilience. In the wake of the COVID-19 pandemic, many countries have prioritized financial sector reforms to stimulate recovery and improve access to credit. However, significant barriers persist, leaving millions unable to fully participate in the financial system.

Despite global efforts, 1.4 billion adults remain unbanked (World Bank, 2022). Over the past decade, only 31% have saved formally and just 29% have borrowed from formal institutions (Fernandez Vidal & Sirtaine, 2024). A major obstacle is the lack of a documented credit history, which prevents many from securing loans. Millions of individuals are classified as “thin-file” or “credit-invisible” borrowers, meaning they lack sufficient credit records, making it difficult for lenders to assess their creditworthiness. Traditional credit scoring models overlook these consumers, leaving many creditworthy individuals unable to access financing (Nair & Beiseitov, 2023).

The COVID-19 pandemic exacerbated this issue. Consumers who previously had strong credit profiles lost financial stability, faced income disruptions, and deferred payments and defaults, with many becoming thin-file borrowers overnight. This widened financial inequality, making it even harder for disadvantaged households and small businesses to access financing at a time when they needed it most.

At the same time, lenders struggled with information asymmetry – a long-standing problem in credit markets (Jaffee & Russell, 1976; Stiglitz & Weiss, 1981; Gibbs Et al., 2024). Without reliable credit histories, distinguishing high-risk borrowers from responsible but inexperienced ones became increasingly difficult. This lack of transparency led to risk-averse lending practices, including higher interest rates, stricter borrowing conditions, and outright exclusion for those without an established credit history. The result was a self-perpetuating cycle – borrowers without prior credit experience remained locked out of the financial system, unable to build the credit record necessary for future borrowing.

To break this cycle, countries must develop a stronger, more inclusive credit scoring ecosystem. A well-functioning credit scoring ecosystem – a network of institutions, data sources, and regulations – is essential to expanding financial access while maintaining financial stability. By enhancing credit reporting frameworks, integrating alternative data sources, and strengthening information-sharing mechanisms, financial systems can empower previously excluded borrowers while mitigating risks for lenders.

This policy brief explores the role of credit scoring ecosystems in addressing financial exclusion, overcoming information asymmetry, and leveraging alternative data sources to expand access. It highlights Indonesia's evolving credit infrastructure as a case study and presents policy recommendations for G20 countries to modernize credit scoring systems. By adopting responsible credit scoring innovation, policymakers can promote financial inclusion, economic resilience, and a more stable global financial system.

»To break this cycle, countries must develop a stronger, more inclusive credit scoring ecosystem.«

BUILDING AN INCLUSIVE CREDIT SCORING ECOSYSTEM

A robust credit-scoring ecosystem requires collaboration between multiple stakeholders. Coordinated action ensures that the necessary infrastructure, standards, and trust mechanisms are in place to support innovative yet responsible credit scoring.

Key actors in this ecosystem include the following:

1. **Credit reporting service providers.** These include both public credit registries, which are typically operated by central banks or financial service authorities, and private credit bureaux, which collect, process, and distribute credit information. Public registries focus on financial sector oversight, while private credit bureaux provide value-added services, such as credit scoring, analytics, and monitoring. Both play a critical role in compiling borrower data – e.g., sourcing information from banks, non-bank lenders, and even alternative providers such as utilities. As credit scoring ecosystems evolve, these entities are incorporating alternative data and partnering with financial technology (fintech) firms to expand their reach.

»By enhancing credit reporting frameworks, integrating alternative data sources, and strengthening information-sharing mechanisms, financial systems can empower previously excluded borrowers while mitigating risks for lenders.«

2. **Financial institutions (lenders).** Banks, microfinance institutions, fintech lenders, and cooperatives are all contributors to and consumers of credit data. They must actively participate in data-sharing frameworks, while using credit reports responsibly to assess borrowers. Lenders must report both positive and negative credit data – not just defaults – allowing consumers to build credit histories through responsible borrowing. Additionally, lenders should play an educational role, informing rejected applicants about why they were denied credit and how to improve their financial standing.
3. **Borrowers and consumers.** Individuals and small businesses are the subjects of credit scoring, and their participation is vital. Financial literacy and credit awareness programs are necessary to ensure borrowers understand their credit scores, regularly check for errors, and take steps to improve their creditworthiness. A well-functioning ecosystem relies on borrower trust and engagement.
4. **Regulators and policymakers.** Government bodies – including central banks, financial regulators, and data protection authorities – set the legal and regulatory framework for credit scoring and reporting. Regulatory clarity is essential, particularly as alternative credit models emerge. Authorities should provide clear rules on data sharing, privacy, and consumer protection while licensing and monitoring credit reporting entities.
5. **Technology firms and service providers.** Fintech startups, digital lending platforms, telecommunication companies (telcos), and data aggregators are pioneering alternative credit scoring using behavioral and transactional data. These firms provide new ways to assess creditworthiness, leveraging data such as mobile phone usage, utility bill payments, and digital transactions. Collaboration with traditional lenders and regulators is necessary to ensure innovation aligns with consumer protection standards.
6. **International organizations and standard-setting bodies.** Institutions such as the World Bank, the International Committee on Credit Reporting (ICCR), and the G20 Global Partnership

for Financial Inclusion (GPFI) provide technical assistance, set global credit reporting standards, and facilitate knowledge sharing. Their role is vital in ensuring that emerging credit scoring practices align with global financial stability goals.

THE EVOLUTION OF INDONESIA'S CREDIT SCORING ECOSYSTEM

Indonesia offers a compelling case study on how a developing economy is strengthening its credit scoring ecosystem to promote financial inclusion. With a population of over 270 million, Indonesia has historically struggled with low formal credit usage and a large unbanked population. While traditional banking infrastructure has expanded, millions of Indonesians remain locked out of the credit system due to a lack of documented financial histories. In response, Indonesia has adopted a multi-pronged strategy to close this gap and create a more inclusive financial ecosystem, leveraging regulatory reforms, fintech innovation, and alternative credit scoring.

A significant step in this transformation came in 2016, when the Financial Services Authority (OJK) began licensing private credit bureaux to complement the existing public credit registry (OJK Press Release, 2016). This dual framework allowed private bureaux to offer value-added services, including credit scoring, borrower alerts, and SME credit assessments, going beyond what was provided by the basic public registry. By diversifying the credit reporting landscape, these changes enhanced lenders' ability to assess risk, broadened credit access, and stimulated competition among financial service providers. However, despite these improvements, a large portion of the population remains outside the formal credit reporting system, lacking the financial records needed to qualify for traditional loans.

Recognizing this gap, innovative credit scoring (ICS) firms have emerged, leveraging alternative data to assess borrowers' creditworthiness. These firms are bridging the divide for individuals without traditional banking histories, which is an approach actively encouraged by regulators through regulatory sandboxes. In recent years, private sector initiatives have further accelerated progress in Indonesia's credit scoring ecosystem, particularly in the field of credit scoring transparency and consumer empowerment.

One standout example is Skorlife, an Indonesian fintech startup that is transforming the way individuals engage with their credit profiles. Launched in 2022, Skorlife provides users with free access to their official credit scores and reports – a feature previously available only to banks and financial institutions. This is a major shift in consumer financial empowerment, as most Indonesians were either unaware of their credit scores or lacked access to real-time credit information. By giving individuals direct insight into their financial standing, Skorlife enables them to take control of their credit health and make informed financial decisions.

The impact has been notable. Within two years of its launch, Skorlife amassed over 2.3 million downloads, reflecting widespread demand for credit education and transparency. Its model integrates traditional credit bureau data with alternative credit insights, offering a dual-layered approach to credit assessment. Users can check their official credit scores while also receiving personalized financial advice on how to improve their standing. Skorlife acts as a credit coach, providing automated guidance, such as bill payment reminders, advice on maintaining a healthy credit mix, and alerts on behaviors that could negatively impact scores. By simplifying complex credit algorithms into practical, actionable insights, Skorlife enables individuals to build their creditworthiness proactively rather than waiting until they need a loan.

Beyond Skorlife, Indonesia's fintech sector has been at the forefront of developing alternative credit scoring models, enabling access to financing for underbanked populations. Telcos, e-wallet providers, and peer-to-peer (P2P) lending platforms are playing an increasingly significant role in financial inclusion by harnessing non-traditional credit data sources.

Telcos such as Telkomsel, Indonesia's largest mobile network operator (a subsidiary of PT Telkom Indonesia), have been exploring the use of telecommunication (telecom) data for credit scoring (Telkomsel Annual Report, 2020). Prepaid phone users, for example, generate valuable financial footprints through top-up patterns, call frequency, and data usage habits. In pilot projects, telcos have worked with financial institutions to analyze these behavioral patterns and develop credit scores that help assess a borrower's reliability, providing an alternative to traditional bank credit reports.

Another key player in Indonesia's evolving credit scoring ecosystem are e-wallet providers, including OVO, GoPay, and DANA. The rapid adoption of digital payments has resulted in millions of daily transactions, creating a new layer of financial data that can help evaluate consumer creditworthiness. However, the integration of e-wallet data into formal credit scoring remains a work in progress, as it requires industry-wide data sharing agreements, consumer consent frameworks, and alignment with Indonesia's Open Finance initiative.

Similarly, P2P lending platforms have expanded access to microloans and small- and medium-sized enterprise (SME) financing by using e-commerce transactions, social media activity, and mobile wallet usage as credit indicators. These platforms extend credit to individuals and businesses that lack traditional financial records but demonstrate strong financial behaviors through alternative metrics. While P2P lenders are required to report loan performance to financial service authorities, they initially rely on alternative data to approve loans for those without bank-based credit histories.

Indonesia's experience illustrates that a multi-pronged strategy, which blends regulatory support, fintech innovation, and alternative data integration, can drive financial inclusion at scale. As these various components come together, previously excluded segments, such as young adults, gig economy workers, and informal entrepreneurs, are gaining access to the formal credit system. If successfully scaled and replicated, Indonesia's model could serve as a blueprint for other developing markets.

POLICY RECOMMENDATIONS FOR G20 COUNTRIES

To achieve greater financial access and stability through improved credit scoring ecosystems, G20 nations must take coordinated action. Addressing information asymmetry, strengthening credit reporting infrastructure, and integrating alternative credit models responsibly are key to ensuring that credit markets function more inclusively and efficiently.

First, G20 regulators must strengthen credit information infrastructure and coverage. Broader credit data sharing mandates should be implemented to ensure that all lenders, including banks, microfinance institutions, and digital lenders, report borrower data to credit bureaux. In many developing economies, credit reporting remains fragmented, with financial institutions often failing to share complete borrower histories. To address this, G20 governments should foster public–private partnerships to create comprehensive credit registries that capture a wider range of borrower activity. Where credit history coverage is low, government-led inclusion initiatives should integrate alternative financial behaviors, such as utility bill payments, rental records, and tax filings into credit databases.

Second, G20 countries should encourage the responsible use of alternative data in credit scoring. Millions of consumers lack traditional financial records, but alternative data, such as telecom usage, e-commerce activity, and digital wallet transactions, can serve as reliable indicators of creditworthiness. To integrate these data sources effectively, G20 financial authorities should establish clear regulatory frameworks, which define acceptable data sources, protect consumer privacy, and ensure transparency in credit assessments. Consumers should have the ability to opt into data-sharing agreements, for example, permitting their mobile operator to share payment history with a credit bureau. At the same time, regulators must implement fairness audits to prevent biases in artificial intelligence (AI)-driven credit scoring models.

Third, G20 regulators must promote financial literacy and empower consumers with access to credit management tools. Governments should support the development of user-friendly platforms, such as mobile apps and web portals, which provide free real-time access to credit reports and personalized financial insights. Additionally, public awareness campaigns should educate individuals on the importance of their credit history, credit score calculation, and how to improve their financial standing. Integrating credit education into school curricula and public finance programs will ensure that future generations develop the skills to navigate credit markets effectively. By equipping consumers with financial knowledge, credit markets function more efficiently, reducing delinquencies and irresponsible borrowing, thus strengthening trust in the financial system.

By implementing these policy recommendations, G20 nations can create stronger, and more transparent and inclusive credit scoring ecosystems. While investment in technology, regulatory capacity, and consumer outreach will be required, the long-term benefits, including enhanced financial inclusion, economic stability, and sustainable credit growth, far outweigh the costs.

CONCLUSION

Credit is often described as the “lifeblood” of an economy. Ensuring that this reaches

»A robust credit scoring ecosystem, strengthened by alternative data and guided by prudent policy, has the potential to unlock opportunities for millions of families and businesses that still remain on the sidelines today.«

all viable borrowers – not just those with long financial histories – is both imperative and necessary for sustainable growth. The COVID-19 pandemic served as a stark reminder of the costs of financial exclusion, as millions were left without access to credit at a time when they needed it most. However, it also accelerated innovation and cooperation in credit scoring, presenting an opportunity to reshape financial access in a way that is more inclusive and resilient. A robust credit scoring ecosystem, strengthened by alternative data and guided by prudent policy, has the potential to unlock opportunities for millions of families and businesses that still remain on the sidelines today.

For the G20, advancing financial access through improved credit scoring is about both broadening financial inclusion and enhancing financial stability. Expanding the base of borrowers in formal credit markets reduces systemic risk, fuels responsible consumption and investment, and creates a more resilient financial system. When more citizens gain access to responsible credit, economies become more dynamic, productive, and less reliant on informal and predatory lending practices.

As highlighted, the key to achieving this is blending the precision of data analytics with the principles of consumer protection. By following a collaborative, research-backed approach, policymakers can ensure that the credit scoring ecosystem evolves as a tool for empowerment rather than exclusion. In turn, this will support the twin goals of global financial stability and inclusive development, helping to build a future where financial opportunity is equitable.

REFERENCES

Demirgüç-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2022). The Global Findex Database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19. World Bank Publications. https://www.worldbank.org/en/publication/globalfindex

Fernandez Vidal, M., & Sirtaine, S. (2024). Open finance can reduce financial inclusion gaps: Here's how. CGAP Leadership Essay Series. https://www.cgap.org/blog/open-finance-can-reduce-financial-inclusion-gaps-heres-how

Gibbs, Christa N., Benedict Guttman-Kenney, Donghoon Lee, Scott T. Nelson, Wilbert H. van der Klaauw, and Jialan Wang. Consumer credit reporting data. No. w32791. National Bureau of Economic Research, 2024. https://www.nber.org/papers/w32791

Jaffee, D. M., & Russell, T. (1976). Imperfect information, uncertainty, and credit rationing. The Quarterly Journal of Economics, 90(4), 651-666. https://doi.org/10.2307/1885327

Nair, A., & Beiseitov, E. (2023). The role of fintech in unsecured consumer lending to low- and moderate-income individuals. Federal Reserve Bank of New York. https://www.newyorkfed.org/medialibrary/media/outreach-and-education/household-financial-well-being/the-role-of-fintech-in-unsecured-consumer-lending-to-low-and-moderate-income-individuals

Otoritas Jasa Keuangan (OJK). (2016). Press release: OJK grants business permits to credit information management agencies. Retrieved from https://ojk.go.id/en/berita-dan-kegiatan/siaran-pers/Pages/Press-Release-OJK-Grants-Business-Permits-to-Credit-Information-Management-Agencies.aspx

Stiglitz, J. E., & Weiss, A. (1981). Credit rationing in markets with imperfect information. *The American economic review*, *71*(3), 393-410. https://www.jstor.org/stable/1802787

Telkomsel. (2020). Keep moving forward and rise together: Annual report 2020. Retrieved from https://www.telkomsel.com/sites/default/files/2022-06/tsel2020-AR-webversion-FINAL.pdf