5. FINANCE

EXPANDING ACCESS TO FINANCIAL SERVICES

Imagine a successful farmer, Sophia, whose farm is in the Morogoro region of Tanzania. Sophia exercises great discipline by making sure she saved a substantial part of the money from selling her crops to pay for inputs and school fees as well as to deal with emergencies. But since there are no banks nearby in the Morogoro region, Sophia, like most farmers in the region, keeps her savings at home, where they are at risk of theft. This is about to change for Sophia and the other farmers since banks can now hire local agents that represent them where their branches fail to reach. Sophia will be able to deposit and withdraw cash, pay bills, transfer funds and obtain loans without needing to travel hours to the closest bank. And access to formal providers will offer a wider range of financial services as well as cheaper and safer transactions.

EBA finance indicators measure the quality of laws and regulations that promote access to financial services and support the development of agricultural enterprises. Regulations that ensure the stability of the financial system and protect customers while promoting innovative ways of delivering financial services help meet the financial needs of farmers and agribusinesses.[1] The finance indicators address factors important to customers excluded from traditional financial services due to their geographical location or the type of collateral they have available.

Regulation and supervision of microfinance institutions (MFIs) and credit unions, the first two indicators for *EBA* finance, were chosen for study because MFIs and credit unions are important providers of microcredit and other financial services to those who cannot access financial services through commercial banks.[2] They provide savings and credit for farmers and agribusinesses to purchase fertilizer and seed and pay for crop marketing, storage and transport. But many countries lack an appropriate legal framework to regulate and supervise those institutions.[3] While overly burdensome requirements on MFIs and credit unions drive up the cost of their products, prudent regulations flexible to the different activities farmers engage in can cut the costs of financial services and foster financial inclusion.[4] Regulations also include consumer protection regulations that ensure that customers' savings are safely handled.

Formal financial markets fail to reach most smallholder farmers in developing countries[5] who live far from urban centers and cannot afford high transaction costs.[6] Agent banking and e-money, measured under the third and fourth indicators for *EBA* finance, offer farmers in rural locations access to financial services without needing to travel far to a bank. In agent banking agents provide financial services on behalf of a bank in areas where the bank's branches do not reach. Non-bank e-money issuers can provide payments, transfers and savings for those excluded from the formal financial system.[7] Regulation

has not caught up with the rapid development of these new ways for delivering financial services. Legal uncertainty and nontransparency impede the growth of the market.[8] Regulators need to strike a balance between maximizing the opportunities for agent banking and e-money while minimizing the risks that they bring.[9]

The fifth indicator for *EBA* finance addresses warehouse receipt systems. Farmers often lack traditional collateral, such as houses or cars, required to obtain a loan. Warehouse receipt systems enable farmers to obtain financing by using their newly harvested crop as collateral. Strong regulations protect the interests of both depositors and lenders and help build trust in the system. They ensure transparency and predictability required to attract customers and financial institutions to use or accept the agricultural commodities as collateral.[10] The data[11] cover the following areas:

- **Microfinance institutions (MFIs).** This indicator covers the regulations for deposit-taking MFIs. It measures the requirements to establish an MFI, prudential regulations including minimum capital adequacy ratios and provisioning rules imposed on MFIs, as well as consumer protection requirements focusing on interest rate disclosure and enrollment in a deposit insurance system.

- **Credit unions.** This indicator measures the existence and content of credit union regulations including the minimum requirements to establish a credit union, prudential ratios and consumer protection requirements similar to those measured for MFIs.

- **Agent banking.** This indicator focuses on the regulations for allowing third party agents to provide financial services on behalf of commercial banks. It includes the minimum standards to qualify and operate as an agent, type of contract between commercial banks and agents, the range of financial services agents can provide and bank liability for agent actions.

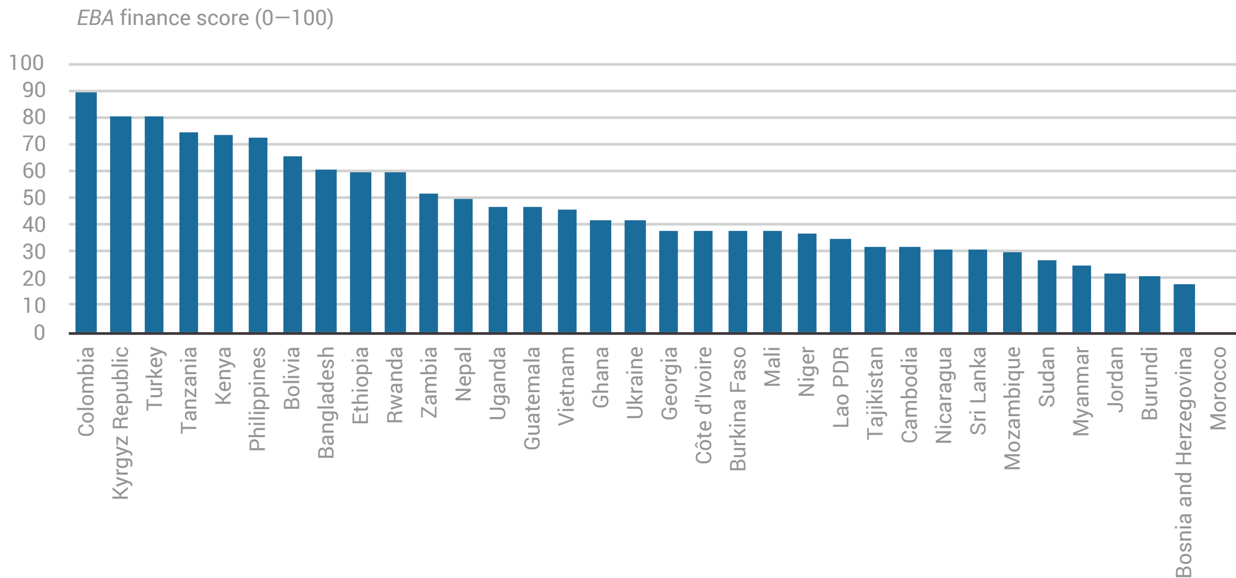
- **Electronic money (e-money)**. This indicator measures the regulations for the provision of e-money by non-bank issuers. It covers the licensing and operational standards, as well as requirements on safeguarding funds collected by non-bank e-money issuers.

- **Warehouse receipts**. This indicator covers the existence and scope of rules regulating warehouse receipt systems, including insurance and other performance guarantee requirements for warehouse operators and the form and content required for legally valid receipts.

Colombia has the highest score on *EBA* finance indicators, due to strong regulations on credit unions, e-money and warehouse receipts (figure 5.1).[12] Colombia's credit union regulations set minimum ratios to ensure financial stability and require transparency in loan pricing. E-money regulations set minimum standards for licensing and require issuers to safeguard customer funds and warehouse receipts regulations allow both paper and electronic receipts.

The Kyrgyz Republic is the only country that scores above average on all five indicators. Other countries in the top 10 show vast differences in their financial regulations. Kenya achieves the top score on electronic money but has no system for warehouse receipts. Although the Philippines scores 100 on credit unions, there is no regulation for agent banking.

FIGURE 5.1 The Kyrgyz Republic is the only country that scores above average on all 5 indicators



Source: *EBA* database.

Note: High-income countries—Chile, Denmark, Greece, Poland, Russian Federation and Spain—are not measured under *EBA* finance indicators.

Many countries impose overly strict regulations on microfinance institutions and lack regulations to ensure the financial stability of credit unions

MFIs and credit unions provide access to credit and savings for customers unable to obtain loans or open accounts at commercial banks—due to geographic location, a lack of credit history or low credit-worthiness. Whereas MFIs take deposits from the public, credit unions provide financial services to members and often at lower cost than banks and MFIs.[13] Both MFIs and credit unions reach customers in rural areas who are normally excluded from traditional banks.

MFI regulations have to be more stringent than those for banks.[14] MFIs have higher administrative costs for each dollar lent given the limited volume and value of microloans. And their portfolios tend to be confined to loan products with substantially similar risks, limiting the room for diversifying portfolio risk. Microloans have higher default risk since they are not secured by collateral and the credit-worthiness of borrowers is hard to assess. But overly restrictive regulations can reduce loans to MFI customers, hindering access to financial services.[15] Smart MFI regulations should secure the financial stability of MFIs while protecting consumers, yet not be so restrictive as to reduce lending (box 5.1).

Among the 30 countries measured by the microfinance indicator, 24 allow MFIs to take deposits from the public while 6 do not.[16] MFIs that take deposits can offer more services to customers than credit-only institutions, such as savings accounts, which enable the poor to manage emergencies better, smooth consumption and take advantage of investment opportunities. Deposit mobilization

BOX 5.1 Good practices for MFI regulations

- Should require MFIs to maintain a capital adequacy ratio (CAR) that is equal to or slightly higher than the CAR for commercial banks.
- Should require provisioning schedules for unsecured MFI loans to be similar to or slightly more aggressive than those for commercial banks.
- Should require MFIs to disclose the full cost of credit to loan applicants.
- Should require MFIs to participate in the deposit insurance system.

also gives MFIs a stable channel to scale up operations and outreach.[17]

Once a loan becomes delinquent, financial institutions must set aside reserves ("provisions")—usually a percentage of the loan's value—in case the borrower is unable to repay. Although provisioning helps MFIs maintain stability in case of loan losses, requiring MFIs to provision too much too quickly leaves less money available to grant new loans. MFIs should be bound by similar or slightly more aggressive provisioning rules than commercial banks.[18] Of the 24 countries that allow MFIs to take deposits, 14 have similar provisioning rules for MFIs and commercial banks, while 9 overly burden MFIs.[19] In Ghana MFIs are required to reserve 100% of the value of an unsecured microfinance loan if the loan has been overdue for 150 days, while banks are required to do so only when a loan has been overdue for one year.

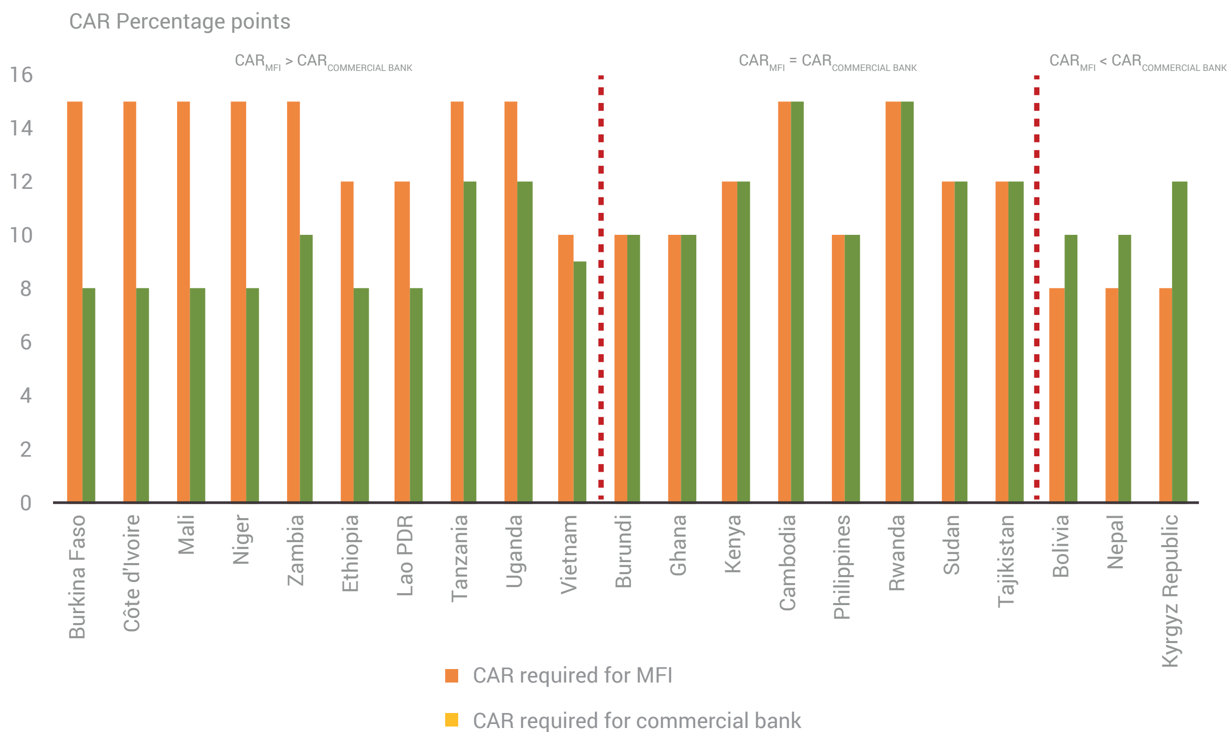
A capital adequacy ratio (CAR) measures a financial institution's ability to withstand portfolio losses from nonperforming loans.[20] Regulators impose minimum CARs to protect depositors and promote the stability of financial institutions. Proportionately higher CARs should be required for deposit-taking MFIs given their riskier portfolios and higher operating costs. But CARs that are too high can reduce the number of loans granted.[21] Of the 24 countries where MFIs are allowed to take deposits, 8 require the same CARs for MFIs and commercial banks (figure 5.2). Nine countries impose discriminative rules against MFIs by requiring that minimum CARs be at least three percentage points higher than required for commercial banks. Three countries set lower CAR requirements for MFIs, putting MFIs at greater risk for financial instability.

Tajikistan scores the highest in this area, where minimum CAR requirements for MFIs are the same as for banks and both are bound by common provisioning rules. It also features strong consumer protection measures such as requiring MFIs to disclose the full cost of credit to loan applicants and requiring MFI participation in the deposit insurance system. These requirements promote customer confidence in microfinance institutions while ensuring financial stability.

Of the 6 lowest scoring countries on the MFI indicator, 5 are located in West Africa. Regulations in these countries do not set a minimum capital requirement to establish an MFI and include overly restrictive provisioning schedules for them. These countries also have no mandatory deposit insurance systems.

While a majority of *EBA* countries that allow MFIs regulate them prudently, credit unions are not regulated to the same extent. Although credit unions take

FIGURE 5.2 Almost half the countries that allow MFIs to take deposits require a higher capital adequacy ratio for MFIs than for commercial banks



Source: *EBA* database.

Note: The capital adequacy ratio (CAR) is defined as an institution's total capital to risk weighted assets. It aims to prevent institutions from taking excess leverage and becoming insolvent in the process. International regulation recommendations encourage commercial banks to maintain a minimum CAR of 8% to safeguard against portfolio losses. Excessively high minimum CARs can reduce lending capacity and appetite of an institution. By contrast, a minimum CAR that is too low can result in financially unstable institutions. Therefore, a good practice is for MFIs to have equal to or slightly higher minimum CARs than commercial banks. There is no minimum CAR required for MFIs in Bangladesh, Mozambique and Myanmar.

deposits from and lend to only their members, they should be subject to appropriate regulations to ensure financial stability and protect the deposits of their members (box 5.2).[22] Credit union regulations tend to have various financial stability requirements ranging from liquidity and reserve ratios to stable funding ratios—sometimes including a minimum CAR. Twenty-three of the 30 countries with credit unions regulate such ratios, and 8 require credit unions to adhere to a minimum CAR.

Transparent loan pricing helps customers determine whether they can afford a loan.[23] Requiring financial institutions to disclose a loan's effective interest rate to a borrower protects consumers from loans with unfair or abusive terms,[24] which is especially important for low-income and low-literate customers.[25] But of the 22 countries that have regulations for both MFIs and credit unions, only 11 require both types of institutions to disclose the effective interest rate to customers. Another 4 require only MFIs to disclose their effective interest rates, while

BOX 5.2 Good practices for credit union regulations

- Establish appropriate minimum capital requirements to establish credit unions.
- Should define the minimum number of members to establish a credit union in regulations.
- Should require credit unions to adhere to minimum ratios for financial stability such as capital adequacy and liquidity ratios.
- Should require credit unions to disclose the full cost of credit to loan applicants.

2 require only credit unions to disclose. The remaining 5 do not require either MFIs or credit unions to disclose the effective interest rate.

The Kyrgyz Republic, the Philippines and Tanzania score highest on the credit unions indicator. Regulations in these countries set prudent requirements that guarantee the financial stability of credit unions and include consumer protection measures. All require appropriate minimum capital requirements and a low minimum number of members to establish credit unions. And they set minimum ratios for financial stability for credit unions. Each ensures transparency in loan pricing by requiring that credit unions disclose loans' effective interest rates to prospective borrowers.

The financial sector is more inclusive in countries with branchless banking laws

Few banks open branches in rural areas because population density is much lower than in cities and the limited customer base hardly justifies the costs of operating a new branch. Rapid ICT development has spurred new ways to deliver financial services without relying on a local bank. Agent banking, also called branchless banking, relies on agents that provide services to rural customers through retail points while remotely connected to a bank in a city. Alternatively, payments and deposits can be made electronically through mobile phones or debit cards (e-money). Both e-money and agent banking offer farmers more economical ways to access financial services so that they do not need to travel far to a bank branch.[26]

Of the low-income and lower-middle-income countries covered, only 11 regulate agent banking.[27] Among them, 7 adopt the good practice of allowing both exclusive and nonexclusive contracts between agents and financial institutions, while the remaining 4 prohibit exclusive contracts (figure 5.3). Exclusive contracts promote innovation by granting banks a monopoly over an agent. Nonexclusive contracts allow agents to provide services for multiple financial institutions, increasing access to financial services.[28]

It is good practice to allow agents to offer a wide variety of financial services (box 5.3).[29] Although most of the 11 countries measured allow agents to provide cash deposits, withdrawals, transfers and bill payments, only in Bangladesh and Ghana can clients open a deposit account through an agent.

FIGURE 5.3 Countries are at different stages of developing legal frameworks to regulate agent banking activities

- Countries with a legal framework on agent banking
- Countries without a legal framework on agent banking
- Countries allow both exclusive and nonexclusive contracts
- Countries do not allow both exclusive and nonexclusive contracts

Source: *EBA* database.

Note: Thirty countries measured under the agent banking indicator include Bangladesh, Bolivia, Burkina Faso, Burundi, Cambodia, Côte d'Ivoire, Ethiopia, Georgia, Ghana, Guatemala, Kenya, Kyrgyz Republic, Lao PDR, Mali, Morocco, Mozambique, Myanmar, Nepal, Nicaragua, Niger, the Philippines, Rwanda, Sri Lanka, Sudan, Tajikistan, Tanzania, Uganda, Ukraine, Vietnam and Zambia.

BOX 5.3 Good practices for agent banking regulations

- Should identify minimum standards to qualify and operate as an agent, such as real-time connectivity to the commercial bank.
- Should allow agents to enter both exclusive and nonexclusive contracts with financial institutions.
- Should allow agents to offer a wide range of services such as cash-in, cash-out, bill payment, account opening and processing of loan documents.
- Should hold commercial banks liable for the actions of their agents.

Finally, it is good practice to hold commercial banks liable for the actions of their agents.[30] This ensures oversight of agents and increases customer confidence. Among the 11 countries measured, only Ghana and Ukraine do not hold commercial banks liable for the acts of their agents.

While both agent banking and e-money enable cheap and accessible financial services by lowering delivery costs, e-money allows customers to access savings, payments and transfers through mobile phones.[31]

Of the 28 countries that have regulations on e-money, 16 allow businesses to issue e-money

without having to hold a banking license (box 5.4).[32] While these businesses still need adequate supervision, obtaining a banking license can be costly and is likely to deter innovative actors from entering the market.

Kenya's strong e-money regulations are reflected in the country's top score. Thanks to high standards for licensing non-bank e-money issuers, regulations protect customers against fraud by imposing anti-money laundering and combating the financing of terrorism (AML/CFT) controls and require e-money issuers to have consumer protection measures, such as consumer recourse mechanisms. And they require issuers to safeguard customer funds by setting aside 100% of what is owed to customers, so that money is readily accessible when the customers want to convert their e-money back to cash.

The relevance of e-money for financial inclusion is shown by Global Findex data on the share of the poor population with an account at a financial institution.[33] This correlates positively with the licensing standards imposed on non-bank e-money providers as measured by the finance indicators, suggesting that in countries with strong e-money laws, a higher share of the population is financially included.[34] Regulations in these countries typically combine clear minimum capital requirements with internal AML/CFT controls and consumer protection measures.

BOX 5.4 Good practices for e-money regulations

- Should allow both banks and non-bank businesses to issue e-money.
- Should specify minimum licensing standards for non-bank e-money issuers, such as:
  - internal control mechanisms that comply with anti-money laundering and combating the financing of terrorism (AML/CFT) laws.
  - consumer protection measures and recourse mechanisms.
- Should require e-money issuers to safeguard and ring-fence customer funds by holding funds in a separate account at a regulated financial institution.

Few countries regulate warehouse receipt systems

Many farmers in emerging economies lack traditional collateral required to access credit, so warehouse receipts can enable farmers and agricultural producers to use agricultural commodities as collateral for a loan.[35] And secure and reliable warehouse receipt systems can enable farmers to extend the sales period beyond the harvesting season (box 5.5).[36]

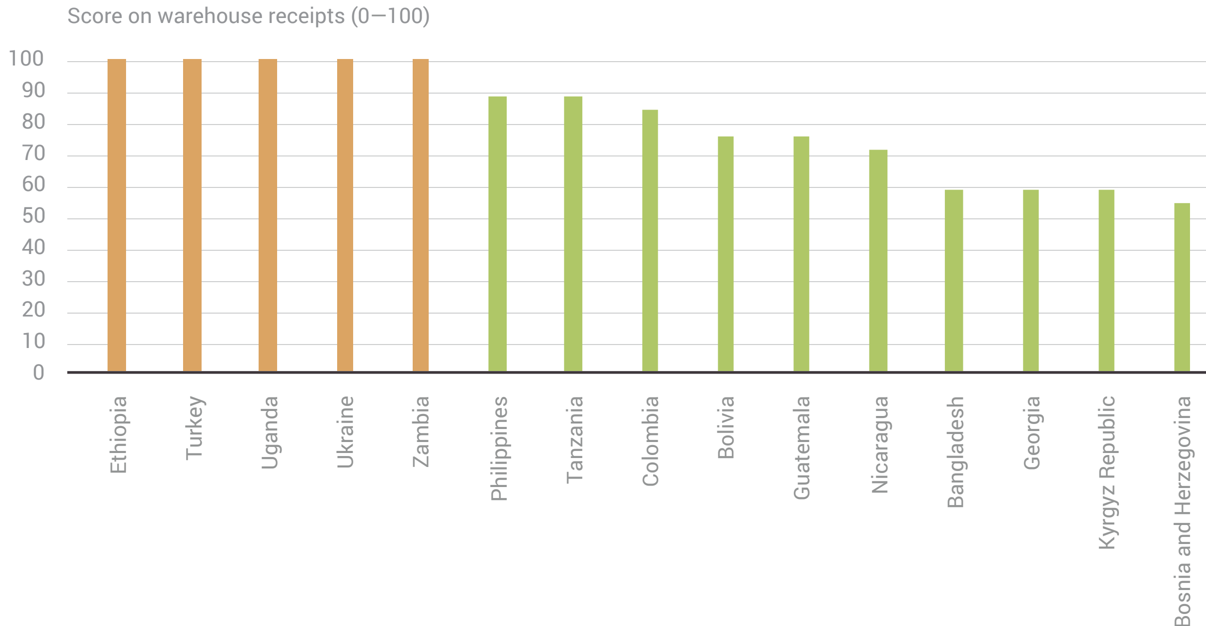
Comprehensive warehouse receipt regulations are still limited for the industry. Only 15 of the 34 countries measured under the warehouse receipts indicator have laws regulating warehouse receipt systems (figure 5.4).

Performance guarantees—such as requirements that warehouse receipt operators file a bond with the regulator, pay into an indemnity fund and insure the warehouse and stored goods against theft, burglary and natural disasters—increase user confidence in the warehouse receipt system.[37] Furthermore, insuring a warehouse and the goods inside reduces a bank's risk in lending against a warehouse receipt, which may incentivize banks to extend credit.[38] Of the 15 countries with

BOX 5.5 Good practices for warehouse receipt systems

- Should require warehouse receipt operators to file a bond with the regulator or pay into an indemnity to secure performance of obligations as an operator.
- Should require that warehouse and stored goods be insured against fire, earthquakes, theft, burglary and other damage.
- Should require that both electronic and paper-based receipts be valid.
- Should define the information required to be stated on a receipt, including the location of storage, the quantity and quality of goods and the information on security interest over the goods, such as the certificate of pledge.

FIGURE 5.4 Three of the five top performers on regulations related to warehouse receipts are in Sub-Saharan Africa



Source: *EBA* database.

Note: High-income countries—Chile, Denmark, Greece, Poland, Russian Federation and Spain are not measured under the warehouse receipts indicator. Burkina Faso, Burundi, Cambodia, Côte d'Ivoire, Ghana, Jordan, Kenya, Lao PDR, Mali, Morocco, Mozambique, Myanmar, Nepal, Niger, Rwanda, Sri Lanka, Sudan, Tajikistan and Vietnam do not have any regulations for warehouse receipts.

warehouse receipt laws, 12 require the warehouse operator to insure the warehouse and stored goods, but only 7 require that the operator file a bond or pay into an indemnity fund.

Of the 15 countries with laws regulating warehouse receipts, 5 score 100 on the warehouse receipt indicator, all having enacted specific warehouse receipt laws in the past 15 years. Three of the 5 are in Sub-Saharan Africa: Ethiopia, Uganda and Zambia.[39] Turkey and Ukraine also score full points.

Uganda's Warehouse Receipt System Act of 2006 and Warehouse Receipt Regulations of 2007 have created an enabling environment for the use of warehouse receipts as collateral for loans. The laws create licensing standards for warehouse operators, including a requirement to file a bond with the warehouse authority to ensure fulfillment of duties and a second requirement that all stored goods are fully insured against loss by fire and other disasters. The law defines the content of a valid warehouse receipt and allows receipts to be negotiable.

Conclusion

Increasing access to financial services is key to helping farmers smooth volatile income flows, better allocate risk and increase production. The *EBA* finance results show that there is opportunity in many countries to improve laws and regulations and move towards good practices, such as:

- **Implementing standards for microfinance institutions that ensure stability and protect customers, yet are not so restrictive as to limit access to financial services**. Kenya's microfinance regulations set a loan provisioning schedule that is slightly more aggressive than that for commercial banks and requires microfinance institutions to participate in a deposit insurance system.
- **Establishing minimum prudential and consumer protection standards for credit unions**. The Philippines' credit union regulations set a low minimum number of members to establish a credit union and require credit unions to disclose their effective interest rate to loan applicants.
- **Creating an enabling environment for commercial banks to hire agents to perform financial services**. The agent banking regulations in the Kyrgyz Republic require agents to have real-time connectivity to the commercial bank and hold commercial banks liable for the actions of their agents.
- **Allowing non-bank financial institutions to issue e-money**. Colombia requires non-bank e-money issuers to have internal control mechanisms to comply with AML/CFT laws and standards and to safeguard 100% of customer funds.
- **Fostering a legal environment that raises confidence in the warehouse receipts system and the use of agricultural commodities as collateral for loans**. In Uganda warehouse operators must pay into an indemnity fund and insure the warehouse and stored goods against theft and damage.

An enabling regulatory environment can improve access to financial services for farmers and agribusinesses. The challenge is to strike a balance between stability of the financial sector and protecting customers, while increasing access to financial services. The finance topic focuses on a small set of regulatory indicators that measure lending constraints for microfinance institutions and credit unions, the

entry and operational requirements for agent banking and non-bank e-money issuers and the regulations for using warehouse receipts as collateral. These indicators can help policymakers identify where regulatory reforms can improve access to finance for farmers and agribusinesses.

Notes

1. CABFIN 2001.
2. CGAP 2012.
3. Nair and Kloeppinger-Todd 2007.
4. IFC and GPFI 2011.
5. Besley 1998.
6. Poulton, Kydd and Doward 2006.
7. Lauer and Tarazi 2012.
8. Kumar and others 2006.
9. Alexandre, Mas and Radcliffe 2010.
10. Ammar and Ahmed 2014.
11. High-income countries—Chile, Denmark, Greece, Poland, Russia and Spain are not measured under the *EBA* finance indicators and data for those countries are shown as "N/A." The *EBA* finance indicators were designed to measure laws and regulations that promote access to financial services for potential customers that are partially or fully excluded from traditional financial services. This is not applicable to high-income countries whose agribusinesses and smallholder farmers have few obstacles accessing the formal financial sector. Data from the Global Findex database show that, on average, more than 80% of the population of high-income countries in the *EBA* sample have an account at a formal financial institution. In addition, high-income countries have developed alternative financial instruments to those covered by *EBA* finance indicators. For instance, instead of warehouse receipt financing, term financing and working capital financing are widely used in high-income countries. Additional indicators will be designed to account for regulations governing relevant financial services in high-income countries next cycle.
12. Colombia, along with all high-income and upper-middle-income countries, is not measured under the MFI and agent banking subindicators.
13. WOCCU 2011.
14. CGAP 2012.
15. CGAP 2012; Cull, Demirgüç-Kunt and Morduch 2009.
16. High-income and upper-middle-income countries (Bosnia and Herzegovina, Chile, Colombia, Denmark, Greece, Jordan, Spain, Turkey, Poland and Russia) are not measured under the MFI subindicator since commercial banks serve the needs of the majority of the population in these countries.
17. CGAP 2003.
18. CGAP 2012.
19. Myanmar does not set a provisioning schedule for microfinance loans.
20. Capital adequacy ratio is defined as a financial institution's total capital to risk-weighted assets.
21. CGAP 2012.
22. Branch and Grace 2008.
23. Chien 2012.
24. The annual percentage rate (APR), an amortization table, or the total cost of credit including interest and other charges were used as proxies for the effective interest rate.
25. Chien 2012.
26. Jayanty 2012.
27. High-income and upper-middle-income countries (Bosnia and Herzegovina, Chile, Colombia, Denmark, Greece, Jordan, Spain, Turkey, Poland and Russia) are not measured under the agent banking subindicator since bank branch penetration is high and branches are accessible in rural locations in

those countries.
28. Muthiora 2015.
29. Tarazi and Breloff 2011.
30. Ibid.
31. Gutierrez and Singh 2013; Jack and Suri 2011.
32. High-income countries (Chile, Denmark, Greece, Poland, Russia and Spain) are not measured under the *EBA* finance indicators.
33. Demirgüç-Kunt and others 2014.
34. The correlation between the percentage of poor population having an account at a financial institution and the score on standards to be licensed as an e-money issuer is 0.35. The correlation is significant at the 5% level after controlling for income per capita.
35. Hollinger, Rutten and Kirakov 2009.
36. Lacroix and Varangis 1996.
37. Wehling and Garthwaite 2015.
38. Ibid.; Kiriakov and the QED Group, LLC 2007.
39. Only 4 of 14 Sub-Saharan African countries have laws regulating warehouse receipt systems.

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