Enabling Environment for Agricultural Finance in Arab Countries

Habib Attia
Panos Varangis
Rong Chen
Ghada Ahmed Waheed Ismail

Enabling Environment for Agricultural Finance in Arab Countries

Findings from Agricultural Finance Diagnostic Conducted in the Arab Region

September 2019

Acknowledgement

This report was jointly prepared by the Arab Monetary Fund (AMF) and the World Bank Group (WBG), in coordination with Arab Financial Inclusion Task Force (FITF) and under the umbrella of the Financial Inclusion for the Arab Region Initiative (FIARI).

The report presents findings of a survey conducted among AMF member countries throughout July – October 2018. Central banks and monetary authorities from AMF member countries provided valuable information through standard questionnaire.

This report was prepared by Panos Varangis (Global Lead, Agri-finance and Insurance), Rong Chen (Economist) and Ghada Ahmed Waheed Ismail (Financial Sector Specialist), at the World Bank Group and Habib Attia (Senior Financial Sector Specialist) at the Arab Monetary Fund. It has benefited from valuable review provided throughout the process by Jean Pesme, Djibrilla Adamou Issa, Laurent Gonnet, Murat Sultanov from the World Bank Group as well as by representatives from the Central Banks representatives at the Arab Financial Inclusion Task Force (FITF).

Table of Contents

Executive Summary

Introduction 8

1. Key role of the agriculture sector 9

2. Agricultural finance overview 11

3. Financial regulation 16
   - 3.1 MFI and Financial cooperative 16
   - 3.2 Branchless banking 19
   - 3.3 Non-traditional collateral 22

4. Agricultural Finance Policy 24
   - 4.1 Interest rate policy 25
   - 4.2 Credit guarantee system 26
   - 4.3 Priority sector lending 28

5. Financial Infrastructure 29

Conclusion 31

Toolkit: How can Governments and Central Banks support agriculture finance in an effective manner? 33

References 41

List of Figures

Figure 1. Credit to agriculture sector is disproportionate to agriculture sector's contribution to GDP 12
Figure 2. High non-performing loans ratios for agricultural loans in Arab countries 13
Figure 3. Arab countries' performance on Doing Business Getting Credit index . 31

List of Tables

Table 1. Employment in agriculture vs. Agriculture's contribution to GDP 9
Table 2. Financial inclusion scenario across Arab countries 14
Table 3. Firms' access to finance scenario in selected Arab countries 15
Table 4. Examples of good regulatory practices 24
Table 5. Credit guarantee mechanisms in Arab countries/economies 27

List of Abbreviations

CMA	Collateral Management Arrangement
E-money	Electronic Money
GDP	Gross Domestic Product
MFI	Microfinance institutions
NEMI	Non-bank E-money Issuer
SME	Small and Medium Enterprise
WHR	Warehouse Receipt
WOCCU	World Council of Credit Unions

Executive Summary

Agriculture sector plays an important role in supporting a sustainable development trajectory for the Arab world. Almost a quarter of the working population in the region are involved in agricultural activities, while the agriculture sector on average contributes to 5.9 percent of the Gross Domestic Product (GDP). This indicates great potential to modernize the agriculture sector, thus empowering rural population and reducing the income gap between rural and urban areas. A modernized agriculture sector will also help better manage scarce water and land resources, alleviate the region's heavy reliance on food importing and reduce its exposure to international food market risks.

Current investment to the agriculture sector is nevertheless limited for the needed transformation. On average, agriculture sector receives disproportionately low level of credit from private sector comparing to the sector's contribution to national economies. Non-performing loans ratios are particularly high for agricultural loans in Arab countries, which might further deter financial institutions from serving the market. Financial inclusion scenario is unsatisfactory especially in rural areas. Only 27.6% of rural adults have an account at a financial institution, comparing with a world average of 64.4%. Only 4.8% of rural adults have borrowed from a financial institution.

Governments and central banks play an important role in promoting agricultural finance. A paradigm shifts from direct public financing to creating an enabling environment to maximize private sector financing has proven to be more effective and sustainable. Targeted and effective agricultural finance policies, smart regulations, well-established financial infrastructure are essential components of an enabling environment. With the aim to map where Arab countries stand on such elements, an agricultural finance diagnostic was conducted in the Arab Region. The diagnostic focuses on regulatory frameworks and policy interventions that fall under the domain of central banks. To collect information on relevant regulation and policy, a standardized questionnaire was circulated to Arab Central Banks and Monetary Authorities. Analyses of regulatory and policy environments throughout the report were exclusively based on responses to the questionnaire. Findings on the regulatory and policy environment for agricultural finance are as below:

- **There exists limited regulatory framework to support the establishment and operation of local financial institutions**. Among Arab countries, only Sudan and Mauritania have established legal frameworks for deposit-taking microfinance institutions (MFIs) and financial cooperatives. Appropriate prudential regulations for MFIs and financial cooperatives support sustainable development of local financial institutions such as MFIs and financial cooperatives, and untap their potential in serving the unbanked population.
- **The Arab World is making great endeavors to promote e-money activities but there is a need of regulatory guidelines to support other innovative ways of delivering financial services such as agent banking.** Morocco is the only country in the region that has established a foundational legal framework for agent banking activities. E-money activities are legally allowed in Morocco, Jordan, Palestinian territories, Libya, Iraq, Egypt, Oman, Sudan and Tunisia. However, in Egypt and Libya, non-bank businesses are not allowed to issue e-money. Leveraging the extensive outreach of non-bank institutions help promote financial inclusion in rural areas.
- **Secured transaction laws as well as other legislations relating to agricultural collateral such as warehouse receipts law need to be further improved in the region.** Only Comoros and Palestinian territories have integrated or unified legal framework for secured transactions that extends to the creation, publicity and enforcement of functional equivalents to security interests in movable assets. Among Arab countries, Egypt, Morocco and Oman have some general legislations but not dedicated warehouse receipt law covering operation of warehouse receipt activities. Many smallholder farmers do not have access or ownership of immovable asset and are unable to pledge it to secure loans. Regulation can play a key role in facilitating the recognition of available collateral for farmers.
- **Credit guarantee mechanism and interest rate cap are the most commonly used agricultural finance policy tools in the region**. Morocco, Egypt, Palestinian territories and Lebanon have established credit guarantee mechanisms for agricultural loans, though agricultural loans only account for a small portion of the guaranteed loans. In addition, features of those credit guarantee mechanisms vary across countries as to coverage and fees. With regards to interest rate

cap, Egypt, Kuwait, Saudi Arabia, Sudan, and Tunisia have adopted relevant restrictions/policies. For instance, in Egypt, banks face interest rate caps, including 5% on loans to small enterprises, 7% on long-term loans to medium enterprises, and 12% on working capital to medium enterprises. Effectiveness of those policies depend largely on the country contexts and are not measured in this report.

- **A few Arab countries/economies are at the frontier of establishing enabling financial infrastructure**. United Arab Emirates, Bahrain, Egypt, Palestinian territories and Saudi Arabia have established comprehensive rules and practices to improve the coverage, scope and accessibility of credit information. This is reflected as obtaining full score on Doing Business-Credit Information Index by those countries/economies. However, only United Arab Emirates, Egypt[1], and Palestinian territories have a collateral registry in operation in the region.

In summary, though the Arab world has made great endeavors to create an enabling environment to promote agricultural finance in certain aspects such as e-money and credit information availability, there lies significant room for the region to improve its regulatory and policy environment. A combination of policies and actions are needed. The report also includes a toolkit at the end detailing what regulatory and policy tools are available and how they could be adopted by governments and central banks. However, to better understand both the supply and demand side in facilitating access to agricultural finance at the country level, or to implement reform based on global best practices, policymakers need to conduct a deep-dive agricultural finance diagnostic which is beyond the scope of this analysis.

[1] Egypt launched its collateral registry in March 2008. The Doing Business team is still monitoring the operation of the collateral registry, thus this reform is not yet reflected in the Doing Business dataset.

Introduction

In the Arab World, countries are being highly exposed to global food price volatility and increasing water scarcity, meanwhile in face with immediate challenges of economic diversification, unemployment, and poverty in rural areas. Sustainable development of the agriculture sector remains strategic in addressing those challenges given its potential for environment protection, ensuring food security, poverty reduction and narrowing the urban-rural welfare gap.

However, current private investment in agriculture sector is far from satisfactory to enhance agricultural productivity and diversify agricultural activities, to combat the challenges posed by rapid population growth, climate change, water scarcity and rural development. On average, agriculture received around 3 percent of total credit from domestic commercial banks in the region, while the agriculture sector contributed to about 6 percent of GDP.[2]

Inherent risks of agricultural activities such as seasonality of production, vulnerability to climate change, price volatility, and small-scale farming hinder financial institutions from lending to the sector. In addition, informality (insufficiency of records and credit history) and less or no collateral excludes many farmers from receiving formal credit in the region. There is a lack of various financial providers such as MFIs or financial cooperatives to serve different segments and demands of farmers or agribusinesses. Initiatives to tackle the high transaction cost of often small amount agricultural loans are also limited.

Smallholder farmers and rural agricultural enterprises need better access to a range of financial products. Smallholder farmers need credit to purchase inputs such as seeds and fertilizers, as well as to finance their harvesting, processing, marketing and transporting operations. Loans, but also savings, credit and payment services, as well as insurance, can help farmers transit to commercialized agriculture.[3] Agricultural enterprises can also take better

---

[2] FAO Investment Dataset. http://www.fao.org/economic/ess/investment/credit/en/. Data are for year 2017.
[3] See FAO (2001).

advantage of new market opportunities if they are able to access affordable financial services.[4]

An enabling environment- with targeted and effective agricultural finance policies and regulations, along with established financial infrastructure- is essential to ensure a well-functioning financial system that promotes the development of agricultural finance. This analysis focuses on assessing the financial regulatory and policy environment as well as financial infrastructure for agricultural finance in Arab countries. It aims to assist policy-makers in identifying regulatory barriers and gaining knowledge on best practices.

1. Key role of the agriculture sector

In the Arab World, agriculture, forestry, and fishing accounts for only 5.9 percentage of gross domestic product (GDP) in 2017, while almost a quarter of working population are involved in agriculture (table 1). Agriculture sector thus plays a significant role in empowering rural population and reducing the income gap between rural and urban areas. This also indicates that there lies significant potential to modernize and transform the agricultural sector. For example, a very high imbalance between employment in agriculture and contribution of agriculture to GDP indicates potential significant gains in efficiency and productivity.

Table 1. Employment in agriculture vs. Agriculture's contribution to GDP

	Employment in agriculture (% of total employment)	Agriculture, value added (% of GDP)
Algeria	12.8	12.3
Bahrain	1.0	0.3
Comoros	54.8	33.6
Djibouti	29.8	2.2
Egypt,	24.8	11.5
Iraq	18.7	4.7
Jordan	3.7	4
Kuwait	3.5	0.6

[4] See IFC & GPFI (2012).

Lebanon	3.2	3.5
Libya	12.4	1.8
Mauritania	75.9	22.9
Morocco	37.5	13.1
Oman	6.5	2.0
Qatar	1.3	0.2
Saudi Arabia	6.3	2.5
Somalia	86.2	62.7
Sudan	53.3	30.5
Syrian Arab Republic	22.9	24.1
Tunisia	13.7	9.2
United Arab Emirates	0.4	0.8
Palestinian territories	9.6	3.2
Yemen	44.5	15.9

Source: World Development Indicators.

Population in this region grew at a rate of 2.2 percent in 2017 and are expected to maintain the speed until 2050. Nevertheless, since 2000, annual growth in agricultural productivity has stayed around 1.9 percent on average. 5 The gap between the increasing regional population and the stagnant growth of food production is already showing in its heavy reliance on food importing. It can be noted that many Arab countries are among the largest food importers in the world, exposing themselves to high risk of food price volatility. Previous World Bank policy suggestions recommended further analyses to "examine the trade-offs between investing in cereal production and consider improving the use of financial instruments (hedging, futures, and others) to manage exposure to international price volatility". A more productive agriculture sector with less reliance on importing may also have positive impact on the balance of payment and the foreign exchange reserves.

[5] IFPRI (2015). https://www.ifpri.org/news-release/middle-east-and-north-africa-must-increase-investment-agricultural-rd-feed-growing

Other issues in the Arab region cannot be neglected while pursuing the development of the agriculture sector are water scarcity, agricultural exports and land tenure. It is estimated that more than eighty percent of the region's[6] water-use is for irrigation. How to improve agricultural water-use efficiency is particularly essential. In addition, exports of high-value crops constitute a relatively low share of all agricultural exports. This leaves significant untapped potential to expand exports to Europe, the adjacent high value markets. Lastly, fragmentation of landholdings and informal tenure arrangement impedes investment to agriculture and access to credit. Division of inherited land is culturally prohibited in many countries in the region, thus many farmers have to co-cultivate/co-own lands with co-heirs.

2. Agricultural finance overview

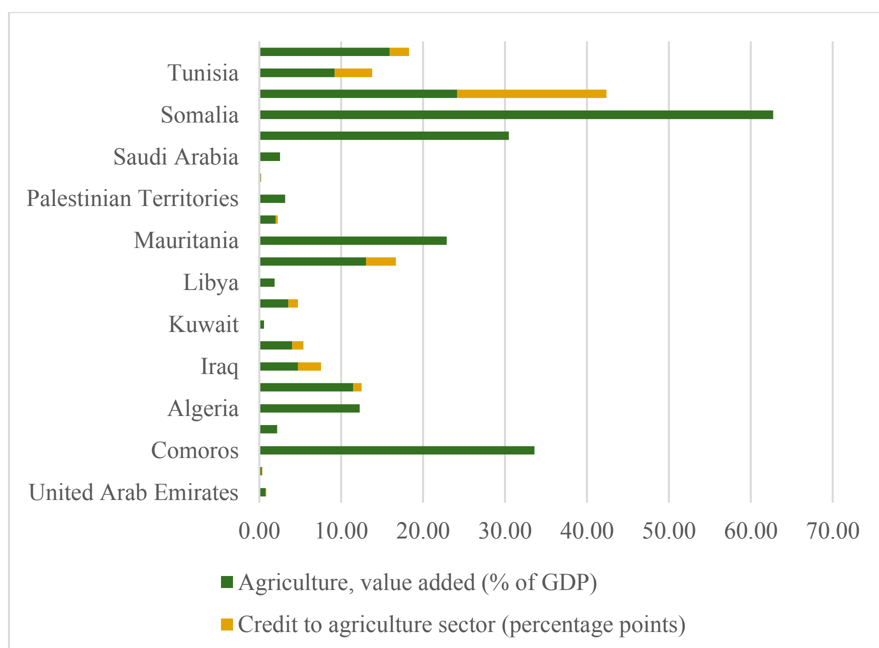
To collect information related to regulation and policy, a standardized questionnaire was circulated to Arab Central Banks and Monetary Authorities. Analyses of regulatory and policy environments throughout the report were exclusively based on responses to the questionnaire. For this section of the agricultural finance overview, the report has benefited from various additional sources including FAO, Findex 2017, World Bank Enterprise Survey, in addition to questionnaire responses.

From countries where data are available, on average agriculture received around 3 percent of total credit from domestic commercial banks, while the agriculture sector contributed to less than 9 percent of GDP. Variations exist among countries (figure 1). In Egypt, where the agriculture sector accounts for 11.5% of GDP, the credit to agriculture sector is only 1 percent of total credit. In Yemen, credit to the agriculture sector is at a disproportionately low level of 2 percent of total credit, considering that the agriculture sector contributes to 16 percent of GDP. Other than credit from formal financial institutions, agriculture receives credit from informal sources as well as financing through the value chain (e.g. from off takers and input dealers in kind, most commonly input financing). Such sources of credit to agriculture could be significant: at a global level according to Dalberg (2016) estimates, informal credit and credit through the value chain can be as high as four times credit to agriculture from formal financial institutions. Nevertheless, credit from formal financial institutions has a number of advantages such as meeting additional financial needs of farmers and agribusinesses (such as

[6] The region is referring in this case to all MENA countries.

savings, payments, loans for other purposes), being more transparent, enabling the establishment of credit history, etc. Furthermore, value chain companies prefer financial institutions to provide credit rather than themselves.

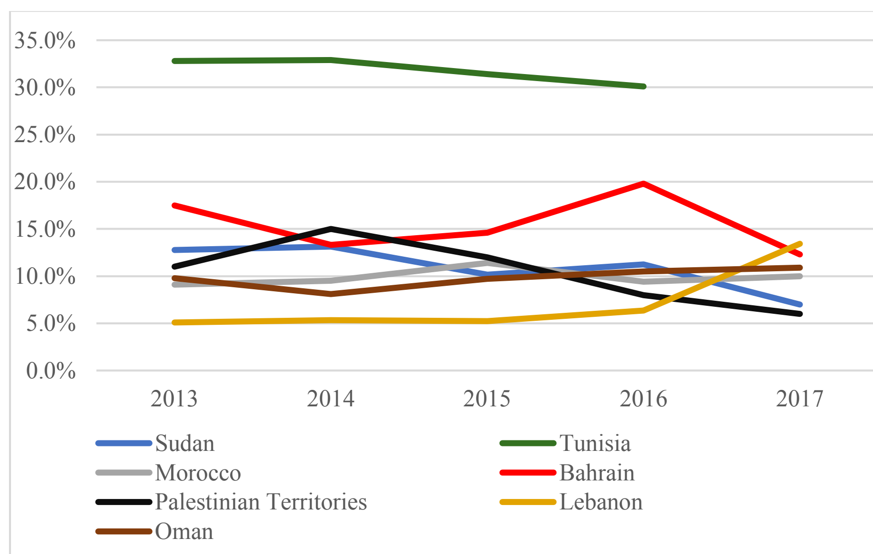
Figure 1. Credit to agriculture sector is disproportionate to agriculture sector's contribution to GDP



Source: The Food and Agriculture Organization of the United Nations (FAO); World Development Indicators.
Note: Data are from year 2017 or the most recently available year.

The ratio of non-performing loans for agricultural loans is very high across countries (figure 2). For instance, in Tunisia, almost a third of agricultural loans are non-performing in the past five years.

Figure 2. High non-performing loans ratios for agricultural loans in Arab countries



Source: Central banks of different Arab countries.

In the Arab World, financial inclusion in the rural area is lagging behind (table 2). The World Bank Findex data show that only 27.6% of rural adults have an account at a financial institution, comparing with a world average of 64.4% in rural areas. Only 4.8% of rural adults have borrowed from a financial institution. Family and friends remain the main source of credit as data show that 27.2% of rural population rely on this channel to obtain credit. Four percent of rural adults have borrowed to start, operate, or expand a farm or business, and six percent of rural people have saved to do so. As table 2 shows, there are significant variations amongst Arab countries, with Bahrain, Saudi Arabia, United Arab Emirates, Jordan and Lebanon, showing higher levels of financial inclusion and borrowings from financial institutions in rural areas.

Many countries/economies in the region have adopted or are in the process of developing national financial inclusion strategies, including Egypt, Jordan, Kuwait, Lebanon, Morocco, Iraq, and Palestinian territories. Including farmers in rural areas as one group of the target audience is important. Moreover, detailed country-level agricultural finance diagnostic can help governments identify key barriers for financial inclusion from

multi-dimensions of demand, supply, regulation, policy etc. For instance, the Vietnamese government has benefited from the detailed findings from an in-depth country-level agricultural finance diagnostic to develop its national financial inclusion strategy.

Table 2. Financial inclusion scenario across Arab countries

	Financial institution account, rural (% age 15+)	Borrowed from a financial institution, rural (% age 15+)	Borrowed to start, operate, or expand a farm or business, rural (% age 15+)	Mobile money account, rural (% age 15+)
Arab World	28	5	4	..
Algeria	44	5	5	N/A
Bahrain	85	17	26	N/A
Egypt,	29	7	4	1
Iraq	19	3	3	3
Jordan	46	20	16	1
Kuwait	61	0	3	N/A
Lebanon	44	17	12	N/A
Libya	72	5	6	N/A
Mauritania	14	8	5	2
Morocco	20	2	2	N/A
Saudi Arabia	79	17	22	N/A
Tunisia	28	6	6	1
United Arab Emirates	80	17	16	14
Palestinian territories	31	4	3	N/A

Source: Findex 2017.

Note: Data are not available in Comoros, Djibouti, Oman, Qatar, Somalia, Sudan, Syria and Yemen. They are considered as zero when counting the regional average.

According to the World Bank Enterprise Survey, more than a third of companies in the region identified access to finance as a major constraint for business operation and development (table 3). On average, 24.4% of firms have a bank loan but there is a significant variation. Some countries have a low level at single digit, such as Egypt (6.6%), Iraq (3.8%), Sudan (4.6%) and Yemen (4.7%). On the other hand, more than 50% of firms in Lebanon, Morocco and Tunisia report that have a loan or line of credit from a bank.

Data also show that lending is relying on high collateral values. Value of collateral needed for a loan is around 1.8 times of the loan amount. In Djibouti, Tunisia and Yemen, the value can be as high as 2.5 times of the loan amount.

Table 3. Firms' access to finance scenario in selected Arab countries

	Percent of firms with a bank loan/line of credit	Value of collateral needed for a loan (% of the loan amount)	Percent of firms identifying access to finance as a major constraint	Percent of firms using banks to finance investments	Proportion of investments financed by banks (%)
Djibouti	30.5	227.9	11.8	24.3	13.8
Egypt, Arab	6.6	158.2	23.4	14.6	7.9
Iraq	3.8	158.8	46.2	2.7	1.5
Jordan	16.7	127	42.8	46.8	25
Lebanon	57.3	207.7	41.5	53.1	32.9
Morocco	51.9	165.7	27.7	34.8	23.4
Mauritania	32.8	110.8	52.4	12.8	9
Palestinian territories	6	130.8	53.3	9.9	6
Sudan	4.6	183.5	15.3	6.7	2.4
Tunisia	53.6	251.5	23.9	22.9	12.9
Yemen	4.7	281.5	45.5	3.8	1.2

Source: World Bank Enterprise Survey.
Note: Data are only available in countries where Enterprise Survey was conducted. The table reflects the most recently available data from Enterprise Survey.

Agricultural insurance is an important risk management tool. It provides ad-hoc liquidity for farmers and agribusinesses in case of unexpected shocks. It also increases incentives to invest in agriculture by lowering the risks of agricultural activities. According to responses received through questionnaire, both public and private companies provide agriculture insurance products in Egypt, Morocco, Palestinian territories, Sudan, and Oman. Sometimes, government tend to support agricultural insurance through premium subsidies, state agricultural insurance company, or government re-insurance program. In Sudan, government provides subsidies on insurance premium, at a level of more than 50% of agricultural original

gross premiums. Egypt and Palestinian territories also claim to have government support for agricultural insurance while with details are not disclosed. No specific government support is found in Oman and Morocco to promote agricultural insurance. In Iraq, Lebanon, Libya, Jordan, and Kuwait, agricultural insurance products are not available. Information on agricultural insurance are not available in the rest of Arab countries.

3. Financial regulation

Regulations are needed to ensure that financial systems function well; however, financial regulations are rarely established to serve a specific sector. Instead, a full-fledged financial regulatory environment would benefit all sectors of the economy, including agriculture. Financial regulations facilitate agricultural finance indirectly through various dimensions including but are not limited to the in the following areas: 1) regulating local financial institutions which are important providers of agricultural finance such as deposit-taking micro-finance institutions (MFIs) and financial cooperatives; 2) establishing guidelines and standards to engender trust on adoption of innovative ways to deliver financial services, such as agent bank and electronic money (e-money); and 3) providing a framework that facilitate the use of non-traditional collateral[7] available to farmers and agribusinesses to access credit while simultaneously preserving their security interests in secured transactions. These areas are highlighted in this analysis as they are currently considered as new areas with great prospects and potential to promote agricultural finance in addition to traditional bank lending.

3.1 MFI and financial cooperative

Deposit-taking MFIs[8] are important providers of rural finance in many developing countries. According to global estimates, MFIs provide 21.4% of the financial institution credit to agriculture, second to state banks and almost three times the credit provided to agriculture through commercial banks.[9] MFIs provide access to important financial services to rural farmers such as savings accounts, payment services, and loans. Given the irregularity

[7] Non-traditional collateral often refers to moveable collateral, such as inventories, machinery and equipment, receivables, etc.
[8] MFIs mentioned in the report refer to deposit-taking MFIs.
[9] Dalberg (2016).

of agricultural income, farmers often need to save to support on farm operations as well as household needs such as paying for school fees, or cope with unexpected life events such as birth, marriage, illness, or death. Additionally, accessing MFI credits has significant impacts on agricultural productivity.[10] They provide financial services not accessible through the traditional financial system, but needed by many people to increase and diversify their economic activities.

Among Arab countries, Sudan and Mauritania have established legal frameworks for deposit-taking MFIs. In Sudan, the Regulation of the Business of Microfinance, 2011 specified licensing and prudential requirements for deposit taking MFIs. The mandatory capital adequacy ratio for MFIs is 12%, same as that for commercial banks. The MFIs are required to fully provision an unsecured microfinance loan when the loans are in delinquency for 360 days, similar to the provisioning requirement imposed on commercial banks. In Mauritania, the Ordinance of 2007 with four implementing instruments regulate the MFI sector. Relatively stringent prudential regulations are imposed on MFIs. MFIs are required to fully provision an unsecured microfinance loan when the loans are in delinquency for five months.

Prudential regulations such as capital adequacy and provisioning requirements help limit risk-taking activities of deposit-taking financial institutions with the aim of ensuring safety of depositors' funds and keeping stability of financial system. Proportionately higher capital adequacy ratios are usually required for MFIs, given their substantial riskier and uncollateralized loan portfolios.[11] However, the prudential regulations cannot be too burdensome to limit the profitability and business expansion of those institutions.

Nevertheless, it can be pointed out that MFIs in Sudan are not legally required to disclose their effective interest rate or the annual percentage rate to loan applicants. Requiring financial institutions to disclose a loan’s effective interest rate (inclusive of all fees, interest, and commissions) to a borrower protects customers from loans with unfair or abusive terms, which

[10] Van Greuning, Gallardo and Randhawa (1998).
[11] CABFIN (2001).

is especially important for low-income customers with lower level of financial literacy.[12]

In many developed economies, financial cooperatives and their networks are well-developed and play a significant role in providing financial services to specific groups. However, constrained by obsolete legal frameworks, low capacity, lack of an appropriate regulatory framework, and poor supervision, financial cooperatives “in most developing countries are underdeveloped” and not fulfilling their potential to serve agricultural and rural finance.[13]

In the region, Sudan and Mauritania legally allow the existence and operation of financial cooperative. In Mauritania, financial cooperatives are regulated as Category A MFIs under Ordinance No. 005/2007. They are cooperatives that offer savings and credit services to their members.[14] Prudential requirements such as liquidity ratio and solvency ratio are imposed on financial cooperatives. Financial cooperatives in Sudan are regulated under the Cooperative Societies Act 2003. There is a lack of prudential standards tailored to those financial cooperatives. According to the World Council of Credit Unions (WOCCU) Model Law and WOCCU’s international prudential standards (PEARLSTM), financial cooperatives should be subject to prudential standards to protect customers and enable credit unions to access financial infrastructure such as central bank borrowing, credit bureaus, clearing of payments and deposit insurance.[15]

Allowing two or more financial cooperatives to merge or amalgamate into a new financial cooperative is another good regulatory practice. It can strengthen a financial cooperative’s financial position and provide a pathway to scale up operations. A merger can also directly benefit financial cooperative members by lowering the financial cooperative’s cost of doing business, thereby reducing the cost of services, lowering loan rates and increasing dividends.[16] In Mauritania, financial cooperatives are allowed to merge or amalgamate. The Savings and Credit Union Promotion Agency

---

[12] Ibid.

[13] Nair and Kloeppinger-Todd (2007). P. viii.

[14] Category B MFIs are institutions incorporated as public limited companies (PLC) that offer savings and/or
credit services to the public.

[15] WOCCU (2011). Model Law for Credit Unions. pp.3,7,20,72-73.

[16] National Credit Union Administration (2014), p.10.

(PROCAPEC) acts as an APEX organization, managing a network of savings and credit cooperative.

3.2 Branchless banking

Access to traditional financial instruments and institutions tend to be out of reach to serve the majority of smallholder farmers in developing countries.[17] High transaction costs of delivering financial services to small, widely dispersed farmers is one important factor contributing to the difficulty.[18] This has led to a search for new models of agricultural financing to address the constraints. Among all the endeavors, branchless banking, characterized with low transaction cost and innovative penetration channel, has enormous potential of reaching farmers and providing them with access to financial services.[19]

Smart regulations play an essential role in engendering trust among customers in the adoption of new ways to deliver financial services. For instance, legal requirements to protect customers' funds as well as data privacy laws that restrict the unauthorized collection and distribution of consumers' personal data help create trust in the use of the new technologies.[20] However, rapid development of digital finance brings potential risks such as cyber security and abusive use of funds collected by non-prudentially regulated institutions. Regulations therefore need to strike a balance between promoting innovation and managing potential risks to ensure financial stability.

Agent banking is one typical branchless banking model. It is a model of delivering financial services through partnership with a retail agent (or correspondent) in order to extend financial services in locations where establishing bank branches would be uneconomical. It provides cost-effective solution to promote agricultural financing from both supply and demand side. On one hand, it lowers the cost to banks by avoiding establishing physical banking infrastructure to unbanked areas. For instance, the set-up costs of a retail agent in Brazil is only 0.5% of the cost of setting

[17] Besley (1998).
[18] Poulton et al. (2006), p. 260.
[19] See Alexandre, Mas and Radcliffe (2010).
[20] Dias and McKee (2010).

up a bank branch.[21] On the other hand, it provides farmers with more economical options of getting access to financial services by regulated providers.[22]

Morocco is the only country in the region that has established a foundational legal framework for agent banking activities. Chapter II of the law n° 103-12 allows credit institutions to hire intermediaries to provide financial services on their behalf though the qualification requirements are not sufficient. Agents serve as extension of the banking system, and are exposed to operational, credit and liquidity risks. Eligibility rules are necessary to manage risks and ensure smooth operation.[23]

In Morocco, agents can enter into both exclusive and non-exclusive contracts with credit institutions. By defining what type of contracts agents may enter into with financial institutions, regulations can divert the focus on either protecting innovation or encouraging the proliferation of agent banking and financial inclusion. Exclusive contracts that grant banks a monopoly over agents can promote innovation, especially in the early stages of agent banking. However, nonexclusive contracts allowing agents to provide services for multiple financial institutions, can further increase the adoption of the agent banking.[24] Over the long term, it is suggested to eliminate exclusivity to promote non-exclusive contracts.

Agents may be able to perform a wide range of services, thus promoting financial inclusion, given the existence of regulations to ensure the reliability, security and competence.[25] Regulation often sets limits on the role agents can play in providing financial services. It is recommended that regulators should permit cash-in and cash-out services at agent locations, and permit agents to conduct customer due diligence (CDD) for AML (anti-money laundering)/CFT (combating financing of terrorism) purposes.[26]

[21] Kumar et al. (2006).
[22] Jayanty (2012).
[23] Lauer, Dias, and Tarazi (2011).
[24] Muthiora (2015).
[25] Tarazi and Breloff (2011).
[26] Ibid.

Besides agent banking, e-money activities are also becoming popular.[27] E-money services can benefit farmers by allowing them, to receive payments as electronic credit into their mobile phone-based account instead of waiting or having to travel to obtain cash payment. Overall, e-money activities are relatively new, and there is no existing legislation for e-money in many countries.[28] It is important for governments to avoid overly burdensome requirements that may handicap or inhibit new entrants and innovations, while on the other hand ensure adequate supervision on the transactions to protect customers.

Among Arab countries/economies (figure 3), e-money activities are allowed in Morocco, Jordan, Palestinian territories, Libya, Iraq, Egypt, Oman, Sudan and Tunisia. However, in Egypt and Libya, non-bank businesses are not allowed to issue e-money. "Nonbank e-money issuers (NEMI) can play an important role in providing an array of financial services — particularly payments, transfers, and savings—for those who are currently excluded from the formal financial system."[29] In Palestinian territories, regulations governing licensed electronic payment services provider are pending to be adopted soon.

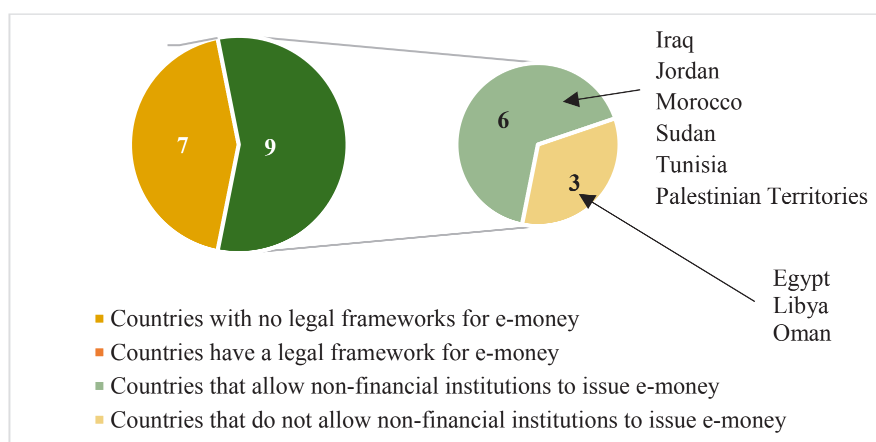
As e-money services become popular, the issue of interoperability – or the ability to transfer e-money from one mobile banking service account to another, and from a regular bank account to a mobile banking account – arises.[30] It is recommended that regulatory authorities can set standards for interconnection of e-money/mobile banking or even attempt to mandate interconnection. Again, regulatory authorities have to strike a balance between encouraging or mandating interoperability of different e-money platforms and encouraging continuous innovation and investment.[31] Among all the Arab countries where non-bank institutions are allowed to issue e-money, Tunisia is the only one who doesn't require "interoperability with other existing electronic money payment/transfer systems" for issuers.

---

[27] Lauer and Tarazi (2012).
[28] IFC and GPFI (2012), p. 40.
[29] Lauer and Tarazi (2012).
[30] There are no widely reported interoperability agreements between providers of m-banking services that allow the direct, electronic transfer of stored value from an account in one m-banking service to an account in another m-banking service when at least one of the services does not involve a traditional bank.
[31] Janet et al (2011).

Though e-money activities help promote financial inclusion, they are easily exposed to money laundering and terrorist financing abuses which pose challenges on the integrity of the financial system. Financial Action Task Force thus recommends a risk-based approach to establish appropriate Know Your Customer (KYC) procedures. This helps ensure access to finance for the bottom of the pyramid without impairing the financial system. Morocco has established comprehensive KYC requirements for e-money accounts at different levels based on maximum value of account holdings. Local regulators in Iraq and Tunisia also claim to have adopted a risk-based approach on the KYC/CDD requirements for opening an e-money account.

Figure 3. Existence of regulatory framework for e-money activities



Source: Arab Central Banks and Monetary Authorities

3.3 Non-traditional collateral

In developing countries, the most common form of collateral used for financing is immovable asset (land, real estate). Many small businesses and smallholder farmers do not have access or ownership of such assets and are unable to pledge it to secure loans. Contrary to the common perception, many of them do have other forms of movable collaterals such as inventory of agriculture products (e.g. crops), livestock, warehouse receipts, agriculture machinery, receivables etc.

Legal and regulatory framework can play a key role in facilitating access to affordable collateral for farmers and agribusinesses. This calls for regulations to streamline recognition of immovable assets such as land

ownership and also support the use of other alternative movable collaterals. In addition, it is important to consider movable assets as effective credit protection when calculating capital charges under provisioning requirements.[32]

Alternative products and arrangements such as contract farming, collateral management arrangements (CMAs), warehouse receipts system (WHRs) have emerged in credit markets to enable producers and processors to fulfill collateral requirements and gain access to credit. CMAs and contract farming require strong contractual laws to facilitate their adoption. Efficient functioning of warehouse receipts system requires specific warehousing regulation or secured transaction laws to create trust in using the financial instrument as a viable alternative to traditional collateral.

Among Arab countries, Egypt Morocco and Oman have some general legislations but not dedicated warehouse receipt law covering operation of warehouse receipt activities. In Egypt., Chapter — 4 Depositing in General Warehouses of the Trade law establishes provisions on warehouse receipt. In Morocco, article 341 of the Commercial Code provides basic legal framework for the warehouse receipts. Oman Commercial Law 55/90, articles 252 to 275 offer guidance on pledge, guarantee and deposit in warehouses.

An appropriate legal framework is a prerequisite for a functioning WHR system. The better the legal framework, the wider the range of possible transactions between the smallholder farmers and financial providers. WHR legislation provides transparency and clarity of the rules governing the system by defining the rights and responsibilities of all parties involved.[33] Legislation protects the rights of depositors and lenders and facilitates easy enforceability of the security, thus encouraging the use of WHR as collateral.[34]

Only Comoros and Palestinian territories have integrated or unified legal framework for secured transactions that extends to the creation, publicity and enforcement of functional equivalents to security interests in movable assets. Comoros, Djibouti, Egypt., United Arab Emirates, and Palestinian

[32] Castellano (2018).
[33] Wehling and Garthwaite (2015), p. vi.
[34] EBRD (2006).

territories allow businesses to grant a non-possessory security right to movable assets. Under the legal framework of Comoros, Djibouti, Tunisia and Sudan, a security right can be extended to future or after-acquired assets, and it extends automatically to the products, proceeds and replacements of the original assets.

Table 4 below shows examples of good regulatory practices in three important areas: Non-bank lending institutions, branchless banking and use of non-traditional collateral.

Table 4. Examples of good regulatory practices

Non-bank lending institutions	Branchless banking	Non-traditional collateral
MFIs can take deposits from the public.	Agents can offer a wide range of services such as cash-in, cash-out, bill payment, and transfers.	Warehouse operators shall insure the warehouse or the stored goods against fire, earthquakes, theft, burglary or other damage.
Capital adequacy requirement for MFIs are slightly more aggressive than commercial banks but not excessively high.	Agents can enter into contracts with multiple financial institutions to provide services.	Information such as the quality of goods and pledge of security should be listed for a warehouse to be valid.
Both MFIs and financial cooperatives provide clear information on the full cost of credit.	There are minimum licensing standards and qualifications for non-financial institutions to issue e-money.	Security rights are granted to movable and future assets.
There exists mandatory capital requirement to establish a deposit-taking MFIs or financial cooperatives.	Regulation requires e-money issuers to safeguard customer funds.	Data on loan amounts below 1% of income per capita, and data from non-financial institutions are distributed by credit bureau.

4. Agricultural Finance Policy

Agriculture is one of the most policy-intervened sectors in most developed and developing countries. In the case of agricultural finance, policy interventions- such as mandatory lending quotas (also referred to as priority

sector lending), interest rate caps and subsidies, credit guarantees , use of grants, and other lending arrangements (e.g. establishment of agricultural development banks)- are used to either try to correct a market failure that impedes borrowers' ability to obtain affordable financing or act as a catalyst to facilitate lending to the agricultural sector. However, policies are highly dependent on country context, and implementation arrangements play a key role in ensuring their effectiveness as policy tools.

4.1 Interest rate policy

The use of interest rate caps is often justified as a financial policy instrument intended to protect poor and vulnerable population from predatory lending practices and address concerns over high interest rate spreads in priority sectors such as agriculture. However, micro-lenders operating in rural markets often incur higher operating costs due to the high administrative expenses of managing small loans and high capital requirements in financing unsecured or un-collateralized loans. This leads to a higher interest rate spread relative to commercial banks. In this context, it is argued that interest caps can have distortive impact on lending to the sector, through driving lenders out of higher-cost rural or microcredit markets and excluding potentially riskier customers that currently have no access to financial services. It may also undermine lenders' ability to innovate new ways of lowering administrative costs and extend financial services to underserved client segments. MFIs and banks, faced with caps in interest rates will cherry pick and choose to serve the easiest to serve and less risky clients, which are those types of clients with the lowest probability of exclusion. In addition, interest rate cap usually comes with public subsidies. However, public subsidies are channeled through public institutions which are plagued by poor governance structure and in lack of monitoring and evaluation mechanism or accountability framework. This worsens the effect of interest rate cap policies. Among Arab countries, Egypt, Kuwait, Saudi Arabia, Sudan, and Tunisia have restrictions/policies on interest rate cap. In Egypt, banks face interest rate caps, including 5% on loans to small enterprises, 7% on long-term loans to medium enterprises, and 12% on working capital to medium enterprises. The interest rate cap is expected to maintain until 2020. According to the Central Bank of Kuwait, the interest rate ceiling for consumer and installment loans shall not exceed 3% over the discount rate. In Saudi Arabia, charges on consumer loans shall not be higher than 10% of the financing amount or SR5,000, whichever is lower. In Sudan, according

to Central Bank of Sudan's Policies for 2016, the maximum profit rate allowed for banks is 12%. Tunisia has had a microcredit law since 1999 that sets an interest rate ceiling at 5 percent including all commissions and fees for MFIs that access subsidized resources from the State.

4.2 Credit guarantee system

Stated sponsored credit guarantee system acts as partial substitute to conventional collateral wherein "if the borrower fails to repay, the lender can resort to partial repayment from a guarantor", such as a public entity or donor.[35] Credit guarantee systems share credit risk with their partner financial institutions in exchange for the guarantee fees. Financial institutions are expected to lend to pre-defined target borrowers such as smallholder farmers with the guarantees to cover a pre-determined percent of the loan value. Due to the inherent risk in the sector and lack of sectoral diversification, agriculture credit guarantee systems may suffer from higher NPLs and claims than other ones. There are guarantee schemes that only focus on agricultural loans (e.g. Mexico's FIRA and Colombia's FINAGRO) while perhaps more common are guarantee schemes focusing on SMEs in any sector, including agriculture (SME agribusinesses and primary agricultural production).

Best practices of an efficient credit guarantee scheme found by a review conducted by World Bank on various credit guarantee systems include: 1) establish an independent public credit guarantee agency; 2) specifying clear and transparent eligibility criteria and qualifications for targeted beneficiaries (firms, SMEs, farmers, etc.), lenders (participating financial institutions) and credit instruments eligible for coverage; 3) coverage ratio that are roughly around 50-70%; 4) adapting risk based pricing principles in targeting; 5) adopting efficient and transparent claims process management; and 6) establishing clear and specify financial reporting and disclosure requirements. In addition, the agriculture credit guarantee mechanism should work with financial institutions who have a clear strategic interest in the sector and establish a policy to prevent a sudden capital loss in case of idiosyncratic incidents including catastrophic climate events.[36]

[35] FAO (2013).
[36] Varangis, Mazen and Buchenau (2017).

Among Arab countries/economies, Morocco, Egypt, Palestinian territories and Lebanon have established credit guarantee mechanisms for agricultural loans. All the mechanisms follow the principle of partial coverage. Guarantee fees in Morocco, Egypt and Lebanon are within normally encountered range. Typical range of guarantee fees is between 1.5-3% p.a. of the outstanding balance of the loan. There are also schemes that charge an up-front fee plus a per annum fee. Under the European Palestinian Credit Guarantee Fund (EPCGF) banks pay 100 basis points (1%) up front on the total loan amount to EPCGF and an additional 150bp (1.5%) on the guaranteed part of the outstanding loan amount quarterly. In addition, it has to be noted that agricultural loans only account for a small portion of the guaranteed loans under the mechanisms in Morocco and Palestinian territories. The guarantee coverage ranges between 60-85%. A more typical range for SME guarantees globally is 50-70%.

Table 5. Credit guarantee mechanisms in Arab countries/economies

	Name	Details	Coverage	Fee
Morocco	Central Guarantee Fund (CGF)	Provides guarantees for both businesses and private individuals. In 2016, main sectors are industry (27%), trade and distribution (26%) and construction (22%).[37]	60% of loan amount.	2% of loan amount (flat).
Palestinian Territories	European Palestinian Credit Guarantee Fund (EPCGF)	Provides partial guarantees on SME loans. Less than 15% goes to manufacturing or agriculture sector.	60% of the realized losses by partner banks on the guaranteed loan.	Banks pay 100 basis points (1%) up front on the total loan amount to EPCGF and an additional 150pb (1.5%) on the guaranteed part of the

[37] Caisse Central de Garantie (2016).

				outstanding loan amount quarterly.[38]
Egypt	Credit Guarantee Company	Provides partial guarantees on SME loans.	70% of risk exposure on average	2% per annum
Lebanon[39]	Kafalat	Kafalat targets SMEs and innovative startups in various economic sectors including agriculture.	85% for "Small Agriculture" program; 75% for "Trees" Program.[40]	2.5% per annum

Source: Central banks of different Arab countries and other resources as detailed in the footnotes. Saadani, Arvai and Rocha (2010).

4.3 Priority sector lending

The effects of priority sector lending or mandatory lending quotas in facilitating lending to the agriculture sector vary significantly. Under the policy of priority sector lending, compulsory lending targets are given to lenders, typically banks, to facilitate a higher share of their lending portfolio in priority sector such as agriculture. Analyses have shown that policies of priority sector lending are effective at channeling credit to specific sectors, but face a variety of challenges associated with financial inclusion (lack of targeting to the poorest segments, increase in costs of access to credit), declining loan asset quality, and mis-allocation of limited financial resources.[41] Mandatory lending to a priority sectors, including agriculture, is associated with higher costs and risks for the financial sector which pose a “tax” on the overall financial system and penalize other economic sectors.

In Sudan, there exist policies aiming to direct the major portion of the financial resources available to the banks in favor of financing the agricultural and industrial production. For the year 2012, banks are required to allocate 12 percent of the investment portfolio on microfinance. In Egypt,

[38] Brown and Gietzen (2015).
[39] The Economic and Social Fund for Development in Lebanon also provides credit guarantees for startups and SMEs in addition to other financial support. Given it’s not a dedicated partial credit guarantee scheme, it is not covered in the study.
[40] Kafalat Agriculture Programme Overview. http://www.kafalat.com.lb/title-programs/177
[41] Ahmed (2010).

banks have to meet the target of allocating 20% of their lending portfolio dedicated to SMEs by 2020.

5. Financial Infrastructure

In the absence of enabling financial infrastructure, financial regulation and policies may have limited impact in facilitating access to finance for smallholder farmers and agribusinesses. A collateral registry is the cornerstone of functioning and efficient secured transaction systems. Researches show that in countries that have introduced registries for movable collaterals, firms experienced increased access to bank finance, as well as declines in interest rates and extensions in loan maturity.[42]

Credit reporting systems also play an integral role in facilitating secured lending. A functioning credit reporting system facilitates collecting information on borrowers and making it available to financial institutions. This can help financial institutions to not only gain access to negative information about defaults or arrears, but also about positive information on borrowers' credit histories, reducing adverse selection and moral hazards in future loans transactions, and hence also reducing lending costs. In some systems, information related to payments of utilities, mobile phone bills, etc., could be added to the system to show track records of financial obligation repayments. Usually public credit registry or private credit bureau collects information on the creditworthiness of borrowers (individuals or firms) and facilitates the change of credit information among financial institutions and other creditors. Coverage of public credit registry or private credit bureau varies among Arab countries (table 6).

Table 6. Coverage of credit bureau and credit registry in Arab countries

	Credit bureau coverage (% of adults)	Credit registry coverage (% of adults)
Algeria	0	3.2
Bahrain	28	0
Comoros	0	13
Djibouti	0	0.4
Egypt,	27.3	8.4

[42] Love et al. (2013).

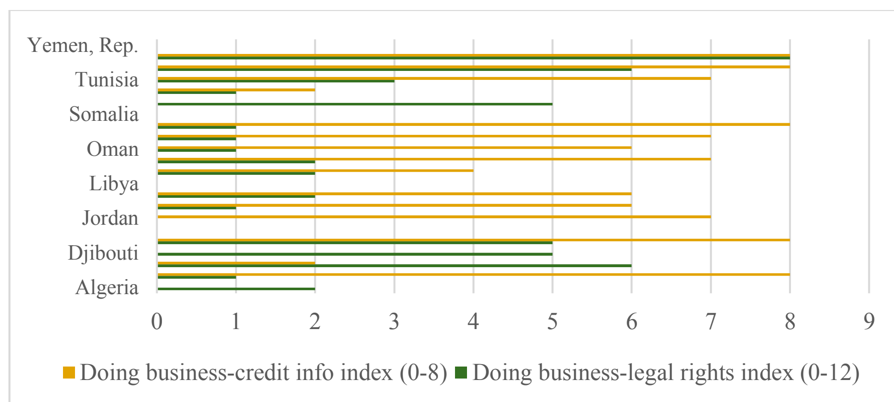
Iraq	0	1.1
Jordan	19.9	4.8
Kuwait	30.7	15.5
Lebanon	0	23.6
Libya	0	0.6
Mauritania	0	7.8
Morocco	29	0
Oman	0	26.9
Qatar	0	28.2
Saudi Arabia	63.2	0
Somalia	0	0
Sudan	3.1	0
Syrian Arab Republic	0	7.3
Tunisia	0	28.8
United Arab Emirates	53.6	10.8
Palestinian Territories	0	21
Yemen	0	1.3

Source: *Doing Business 2019* database.

Many Arab countries/economies do well on credit reporting system. United Arab Emirates, Bahrain, Egypt Saudi Arabia and Palestinian territories receive full score on the Doing Business Credit Information Index. In these countries, borrowers have the right to access their data in the credit bureau or credit registry. Data on loan amounts below 1% of income per capita are distributed. This is especially important for farmers whose loan amount is usually small. In addition, data from retailers or utility companies - in addition to data from banks and financial institutions – are distributed. This helps improve access to finance for those who were excluded from traditional banking system before.

However, in the region, only United Arab Emirates, Egypt[43] and Palestinian territories have a collateral registry in operation for both incorporated and non-incorporated entities. It is unified geographically and by asset type, with an electronic database indexed by debtor's name.

Figure 3. Arab countries' performance on Doing Business Getting Credit index



Source: *Doing Business* database

Note: Legal rights index (0-12) are credit information index (0-8) are the two components of the Doing Business getting credit index.

Conclusion

About a quarter of working population are involved in agricultural activities in Arab countries on average. Nevertheless, agriculture sector's contribution to GDP is less than 10 percent. This implies significant room to improve agricultural productivity and modernize the entire sector to improve efficiency. Credit and other financial services are essential in supporting the sustainable development of the agriculture sector in the region. How to create an enabling environment to promote agricultural finance becomes an important issue on the agenda of governments.

Credit to agriculture sector is at disproportionately low level comparing with agriculture sector's contribution to GDP. In addition, commercial banks dominate the provision of financial services in the region. Other types of

[43] Egypt launched its collateral registry in March 2008. The Doing Business team is still monitoring the operation of the collateral registry, thus this reform is not yet reflected in the Doing Business dataset.

financial institutions such as MFIs, financial cooperatives rarely exist. These latter can be quite effective in reaching smaller and less commercially farmers as well as poorer rural households. Meanwhile, financial services/products provided by the region are limited. Non-traditional collateral such as warehouse receipts, agricultural equipment is often not accepted by financial institutions.

Governments are in need to create an enabling environment to promote agricultural finance, from three dimensions of regulation, policy and financial infrastructure. In terms of regulatory framework, adopting appropriate prudential regulations for MFIs and financial cooperatives can help the establishment of local financial institutions such as MFIs and financial cooperatives, and untap their potential in serving the unbanked population. Allowing non-bank institutions to issue e-money can fully utilize their outreach in rural areas and promote financial inclusion. Secured transaction legislations as well as other provisions facilitating the usage of movable collateral such as warehouse receipts, agricultural equipment also help engender trust in using non-traditional collateral in lending.

With regards to policy, credit guarantee mechanism is the most commonly used agricultural finance policy tool in the region. However, agricultural loans only account for a small portion of the guaranteed loans under those mechanisms. In addition, features of those credit guarantee mechanisms vary across countries as to coverage and fees. However, while the very general level of information obtained through the survey indicate that the parameters of these guarantee funds are within observed ranges in other countries, the key issue is how guarantees are implemented (e.g. granting procedures, timing, claims handling, etc.), what is their financial performance (e.g. how financially sustainable are they?), and what is their additionality (e.g. do they facilitate credit where credit was not before?).For these questions a detailed review of the credit guarantee mechanism at country level may be helpful to examine whether they fully play the role of facilitating lending to agriculture sector.

Relating to financial infrastructure, many Arab countries have met the global standard on collecting and disclosure of credit information. United Arab Emirates, Bahrain, Egypt, Palestinian territories and Saudi Arabia have established comprehensive rules and practices (full score on Doing Business-Credit Information Index) with the aim to improve the coverage,

scope and accessibility of credit information available through either a credit bureau or a credit registry. However, only United Arab Emirates, Egypt[44] and Palestinian territories have a collateral registry in operation in the region.

Investing in agriculture and promoting financial inclusion in rural areas play a significant role in addressing unemployment and rural/urban gap in Arab countries. Government shall create an enabling environment for the promotion of agricultural finance, through 1) establishing legal frameworks for non-bank financial institutions, innovative ways of delivering services as well as; 2) evaluating the efficiency and effectiveness of ongoing agricultural finance policies and 3) building supportive financial infrastructure such as collateral registry and credit bureau. In addition to an enabling environment, governments should have a paradigm shift to focus on public interventions that enable financial institutions transfer risks (systemic: through insurance, idiosyncratic: through guarantees) so scarce public funding can leverage private sector funding to finance agriculture. Appropriate interest rate policies, grant programs, and other instruments could be designed as to crowd in private sector finance.

Toolkit: How can Governments and Central Banks support agriculture finance in an effective manner?

Governments and Central Banks play a crucial role in supporting or hindering agricultural finance. Whereas stable, well-focused policies with requisite regulations and support mechanisms enhance and improve financial services to the agricultural sector, ones that are disjointed or subject to unpredictable changes in policies or governmental politics affect performance, disrupt and deter interest for financing and investment. Agricultural financing is already perceived as difficult and higher risk; hence particular emphasis is needed by Governments and their Central Banks to support agricultural finance in a constructive, sustainable manner with well-designed actions and a long-term perspective.

Government banks are not sufficient to meet the financing needs of agriculture, thus necessitating active engage of the private sector. This can be done in various manners. The aim is to supplement and leverage banks'

[44] Egypt launched its collateral registry in March 2008. The Doing Business team is still monitoring the operation of the collateral registry, thus this reform is not yet reflected in the Doing Business dataset.

own use of funds. Otherwise, there will always be a shortage of agriculture finance, especially to those with less access to it.
There are multiple policies and intervention actions to consider according to the context and situation to be addressed. Most commonly, a combination of policies and actions are applied. This chapter provides a perspective and guidance on what is available to consider and recommendations on how they could be applied by Governments and Central banks. Some of these are a "carrot" or incentive to increase interest from the financial sector to lend and invest. Many of help to share or mitigate risk. Other measured used are an incentive to increase the demand for borrowing by the borrowers through building their capacity and/or providing incentives to enhance their ability to borrow. Other policies follow a "stick" approach and dictate conditions on lending and investing. A third area of interventions address improving efficiency and transparency of lending.

Range of public policies affecting agricultural finance

The most common legal and regulatory policies that dictate requirements for agricultural finance to direct lending are:

- **Lending quotas** (priority sector lending) requiring minimum percentages of lending to agriculture or small farmers or other priority sectors of the government
- **Interest rate caps** that set maximum rates that banks and financial institutions can charge for loans to particular sectors, such as agriculture and/or target groups such as small farmers and small enterprises
- **Interest rate subsidies** that reduce the cost of credit to agriculture thus stimulating demand but at the same time they do not create conditions to increase supply for credit
- Regulation of **bank branch** expansion requirements which regulate bank expansion to force the financial institutions provide bank branches in rural areas.

"Stick" policies

The above-mentioned *"stick" approach policies* can increase lending to agriculture. However, there are ***many unintended negative effects that can over-ride the effectiveness*** and cause more damage. For example, the

interest rate cap put into place in Kenya has reduced lending to agriculture and is effectively killing the interest of the financial to lend to the small farmers, as evidenced by a significant rise in average loan size as a way to counter the reduction of income from lower rates. Lending quotas have been found to cause FIs to resist and instead pay a fine for not complying, although some FIs have been able to form partnerships with local service providers to meet the requirements.

The absence of some regulations that are important for agricultural financing also constrain lending:

- **Prudential regulations** impact agricultural lending when general banking requirements and safeguards for traditional mortgage or collateral-based lending are applied to agriculture. Smallholders, for instance, generally do not have acceptable collateral and cannot get formal funding but could be financed if the regulations allowed for alternative loan security sources and methods to mitigate risks and structure loans. Cash-flow based loans and value chain approaches that are based on relationships and transaction can mitigate the need for traditional collateral. The classification of what is secured lending is also important since regulations and reserve requirements banks must follow for unsecured lending restrict their interest and are additional ways that prudential regulations can adversely affect agricultural lending.

- **Moveable collateral** instead of use of land or real estate often lacks necessary policies and regulation. Such moveable collateral can be in the form of commodity inventories, equipment, receivables, and even pledges of future crop (crop receipts). A common instrument is the use of inventories as collateral through warehouse financing. **Warehouse receipt financing, for example,** is hampered in countries that lack the requisite regulations and institutional arrangements. These policies and regulations are needed to govern safe and effective use of stored commodities as a collateral. When the storage receipt can be legally recognized and traded as acceptable financial notes, it can help expand financing.

- **Alternative dispute mechanisms** for contract farming are an example of regulations that can help address the problem of contract breaking. Normal judiciary processes are too costly, driving lenders away from financing the agribusinesses offering the contracts, as well as the

producers who could use their sales contract to help secure loans for their needs.

“Carrot approaches”

Incentives are *“carrot approach”* and are frequently used to promote lending to agriculture. Common incentives, some of which are growing in important are:

- **Lines of credit** for targeted lending can be offered from the Central Bank or other public banks and/or from second tier funds can be used to entice lenders to finance agriculture. Many commercial lenders depend on short-term deposits and lack sufficient long-term or seasonal sources of funds, which can necessitate that lines of credit or wholesale funds are provided. Even though it is an important and valid response, it must be done with care so as to not create a dependency on such governmental funds and to manage them with the same fiduciary responsibility of their own funds. However, directed lines of credit are typically offered at highly subsidized rates to entice lenders and borrowers. This can be beneficial to those who receive it but ***distorts the market*** because the private sector commercial banks and fund can no longer compete and withdraw from the market. Secondly, the ***supply of the subsidized funding is limited and costly, causing rationing toward those who have most access***, therefore with a tendency to exclude smaller producers. A third difficulty is that borrowers have repeatedly shown ***poor repayment*** of such low-cost loans both because they do not take the government loans with seriousness and/or because they first repay higher cost ones. In either case, it can cause depletion of the governmental funds and higher rationing and higher governmental costs due to the losses.

- **Matching grants** are a conditional “helping” hand that can encourage agricultural financing and investment. It reduces the cost of purchases and/or services and the financial risks since less borrowing is needed for a given investment. Such grants may Management of this type of subsidy requires considerable planning, selection process, training and monitoring if it is to reach its intended beneficiaries. Determining the type and purposes of matching grants is also important. Matching grants are subsidies that expensive, especially if the grant portion is high, and hence the use of public funds needs to be well justified.

- **Subsidies** have been used in many forms in agricultural financing such as interest rates, cash collateral, matching grants, interest rebates, government and donor supported (and subsidized) guarantee mechanisms, agricultural insurance with heavily subsidized premiums, and ad hoc free disaster relief, etc. As noted, the costs of subsidization, the market distortions they can have and the mentality or perceptions they create can hinder self-responsibility and lower loan repayment seriousness which drives away unsubsidized private financing.

Focus on enabling

One of the most important roles of government is to enable its people, all its people, and ensure that adequate attention is given to those people and sectors that need it most, such as the agricultural sector. Enablers can be through ***government support*** and through an ***empowering operating environment*** that promotes equitable growth and investment in agriculture. This involves enabling through building capacity, through reducing bottlenecks and costs, through fiscal and monetary policies and regulations and through engagement with the private sector, both large and small.

Government support areas

- **Capacity development** is one of the most widely accepted forms of government support. Technical assistance to value chain actors from farmers to processors and to financial institutions and business support services. Organizational development, financial literacy, etc. are also common, including business planning. Best practice experience highlights the need for it to be demand driven in order to be valued and put into practice. Capacity develop may also be needed for the government workers themselves in order for them to make informed decisions and policies.
- **Financial infrastructural development** such as support for the development or improvement of credit bureaus, moveable collateral registries and warehouse receipt and collateral management systems can be an effective use of public funding.
- **Agriculture data** and data systems are widely lacking without public support will remain fragmented and insufficient. Agricultural planning and loan appraisal require yield, weather, price and technical data, etc., and the absence of it both restricts lending due to the uncertainty and

leads to inadequately structured loans. Climate change makes the use of data even more important.

- **Risk sharing** incentivize both the demand and supply of agricultural financing. Smart subsidies include support for partial credit guarantees, commercial agricultural insurance, and catastrophic risk coverage.
- **Risk mitigation investment and management** are upfront supporting investments with long-term benefits. These should address the key risk areas of production, market and credit and include:
- **Establishment agroclimatic information systems**, analysis of risks, mapping, dissemination of data and information, etc.
- **Financial and technical assistance for investments to reduce risks** (e.g. irrigation, drought resistant seeds).
- Promotion of **financial inclusion in rural areas** such as access to savings, remittances, emergency loans and social safety systems.
- **Price risk support mechanisms**, accompanied by requisite price policies that reflect market conditions, help provide stability in the marketplace and confidence for borrowing and lending. Support to the development of price transparency, commodity exchanges (that can offer forward, futures and options to hedge price risks) and storage facilities (to enable inter-temporal price arbitrage) are among the areas to be considered.
- **Loan program strengthening** can be a valuable through supporting the development of efficient and comprehensive loan appraisal and credit scoring programs for agriculture, including MIS systems, mobile and IT applications.
- **Smart subsidies** that are very targeted to specific activities and beneficiaries in order to promote investments in areas that generate significant environmental and social externalities above private sector benefits from such investments.

Empowering operating environment

An operating environment for agricultural finance should **focus on enablers**, that can:

- **Create conditions** that promote agricultural growth and an effective and sustainable demand for finance.

- **Attract and leverage private sector finance and investment**
- **Reduce and rationalize fiscal costs** by achieving more finance for agriculture with less budgetary resources
- **Reduce transaction costs** for reaching smallholders, through: a) using a value chain approach to financing, when applicable, and b) supporting capacity building, TA and information systems
- **Provide incentives** to spur the development and roll-out of cost-effective IT solutions for financial and value chain applications
- **Provide selective use of blended finance** (combining grants with commercial finance) for targeted beneficiaries (e.g. smaller farmers lacking access) and for targeted activities (e.g. finance for longer-term assets or climate smart investments).
- **Strengthen and support local financial institutions** that have better reach to smallholder farmers and encourage a suitable regulatory and supervision framework for these institutions to operate. These include financial cooperatives and credit unions, MFIs and non-bank financial institutions and companies, such as financial leasing businesses.
- **Provide suitable regulations** to promote mobile money, agent banking and digital financial products/services that reduce transaction costs and help reach under-served agricultural areas.

Other recommended areas of support include:

- **Expanding the application of digital instruments** to facilitate agricultural finance.
- **Capacity building to the financial sector institutions** through technical assistance to help banks and financial institutions better understand value chains, design the right financial instruments and help in appraising loans using cash-flow based lending (rather than asset-based lending).
- **Expanding the range of financial instruments** needed for the agriculture sector including Warehouse receipts (WHRs) and Crop receipts. A whole range of financial instruments exist and could help facilitate agriculture sector lending, value chain financing instruments and transaction finance. However, the introduction of these

instruments would need to be complemented by financial sector training and technical assistance.

In summary, Governments and their Central Banks must facilitate the development of healthy agricultural finance in their countries. Their most ***effective role is not to provide the financial services themselves but rather to create an enabling environment*** for a growing demand for agriculture and its financing. They can also provide ***smart incentives*** to facilitate greater financial inclusion and services including risk sharing, applications to reduce costs and losses in financing, and in supporting the human, organizational and physical infrastructure capacity needs that are holding back agricultural financing and its development. These roles are of primary importance and are not easy, but they can partner with development finance agencies and others to help support their leadership and moving forward in this work.

References

Ahmed, Jaynal. 2010. "Priority Sector Lending By Commercial Banks in India: A Case of Barak Valley". *Asian Journal of Finance & Accounting*, 2(1).

Alexandre, Claire, Ignacio Mas and Daniel Radcliffe. 2010. "Regulating New Banking Models that Can Bring Financial Services to All". *Challenge Magazine,* Vol 54, No. 3, pp. 116-13.

Besley, Timothy. 1998. "How do financial failures justify interventions in rural credit markets". In Eicher, C.K. and J.M. Staatz (Eds) *International Agricultural Development* 3rd edition.

Brown, Martin and Thomas Gietzen. 2015. "European Palestinian Credit Guarantee Fund." KfW Development Bank, Evaluation Unit. Frankfurt, Germany.

CABFIN. 2001. "An analytical framework for regulation and supervision of agricultural finance". Agricultural finance revisited series. No. 4. Rome.

Caisse Central de Garantie. 2016. Rapport D'Activite. Morocco.

Castellano, Giuliano G. 2018. "The Regulatory Treatment of Secured Finance in the United Arab Emirates." Unpublished policy paper. Washington, D.C.: World Bank Group.

Dalberg. 2016. "Inflection Point: Unlocking growth in the era of farmer finance". New York.

Dias, Denise and Katharine McKee. 2010. "Protecting Branchless banking Consumers: Policy Objectives and Regulatory Options." CGAP Focus Note 64. Washington, D.C." CGAP.

European Bank for Reconstruction and Development. 2006. "Grain Receipts Program- Regional". Project Evaluation Department, EBRD.

FAO. 2001. "Prudential regulation and supervision for agricultural finance". Agricultural finance revisited series. No. 4. Rome.

FAO. 2013. "Credit guarantee systems for agriculture and rural enterprise development". Rome.

IFC (International Finance Corporation) & GPFI (Global Partnership for Financial Inclusion). 2011. *Scaling up Finance for Agricultural SMEs.* Washington, D.C.: World Bank Group.

Jayanty, Sai Kumar. 2012. “Agency Banking: New Frontiers in Financial Inclusion”. Infosys Finacle, Infosys Thought Paper. Bangalore, India.

Kumar, Anjali, Ajai Nai, Adam Parsons and Eduardo Urdapilleta. “Expanding Bank Outreach through Retail Partnerships.” World Bank Working Paper No. 85. Washington, D.C.: World Bank Group.

Lauer, Kate, Denise Dias, and Michael Tarazi. 2011. “Bank Agents: Risk Management, Mitigation, and Supervision.” CGAP Focus Note No. 75 of December 2011. Washington, D.C.: CGAP.

Lauer, Kate and Michael Tarazi. 2012. “Supervising Non-bank E-money Issuers”. CGAP Brief. Washington, D.C.: CGAP.

Love, Inessa, Maria Soledad Martines Peria and Sandeep Singh. 2013. “Collateral Registries for Movable Assets: Does their Introduction Spur Firms’ Access to Bank Finance?” Washington, D.C.: World Bank Group.

Muthiora, Brian. 2015. *Enabling Mobile Money Policies in Kenya: Fostering a Digital Financial Revolution.* London: GSMA.

Nair, Ajai and Renate Kloeppinger-Todd. 2007. “Reaching Rural Areas with Financial Services: Lessons from Financial Cooperatives in Brazil, Burkina Faso, Kenya, and Sri Lanka”. Agricultural and Rural Development Discussion Paper 35. Washington, D.C.: World Bank Group.

National Credit Union Administration (NCUA). 2014. Truth in Mergers: A Guide for Merging Credit Unions. Prepared by the Office of Small Credit Union Initiatives, May 2014. Alexandria, VA: NCUA.

Poulton, Colin, Jonathan Kydd and Andrew Doward. 2006. “Overcoming Market Constraints on Pro-Poor Agricultural Growth in Sub-Saharan Africa”. *Development Policy Review* 24(3), 243-27.

Saadani, Youssef, Zsofia Arvai and Roberto Rocha. 2010. “A Review of Credit Guarantee Schemes in the Middle East and North Africa Region.” Washington, D.C.: World Bank Group.

Tarazi, Michael and Paul Breloff. 2011. "Regulating Banking Agents." Focus Note No. 68. Washington, D.C.: CGAP.

Van Greuning, Joselito Gallardo & Bikki Randhawa. 1998. "A Framework for Regulating Microfinance Institutions". Washington, D.C.: World Bank Group.

Varangis, Panos, Bouri Mazen and Juan Buchenau. 2017. "Partial Credit Guarantee Schemes to Promote Agricultural Finance". Washington, D.C.: World Bank Group.

Wehling, Philine, and Bill Garthwaite. 2015. "Designing warehouse receipt legislation: Regulatory options and recent trends". Prepared in collaboration with the Development Law Service of the FAO Legal Office. Rome: FAO.

World Council of Credit Unions (WOCCU). 2011. *Model Law for Credit Unions*. Madison, Wisconsin: WOCCU.

Arab Monetary Fund
Corniche Street,
Abu Dhabi, P.O. Box 2818
United Arab Emirates

www.amf.org.ae

World Bank Group
1818 H Street, N.W.,
Washington, DC 20433,
United States of America

www.worldbank.org