ADBI Working Paper Series

FINANCIAL INCLUSION, REGULATION, FINANCIAL LITERACY, AND FINANCIAL EDUCATION IN ARMENIA

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The Working Paper series is a continuation of the formerly named Discussion Paper series; the numbering of the papers continued without interruption or change. ADBI's working papers reflect initial ideas on a topic and are posted online for discussion. Some working papers may develop into other forms of publication.

In this report, "$" refers to US dollars.

Abstract

Financial inclusion has significantly advanced in Armenia during the last decade. Rural and urban areas, however, have benefited unevenly. The high cost of providing financial services, the lack of physical infrastructure, higher poverty rates, and the low level of financial literacy are the main barriers to financial inclusion in the rural areas. The availability of, and the high level of trust in, postal services in all villages, along with innovative technologies, should be exploited to address the inadequate physical infrastructure. Insurance services, in particular health and agriculture insurance, have a high growth potential. Mandatory health insurance along with an e-health infrastructure can boost high-quality financial inclusion. Targeted financial education policies addressing the most vulnerable groups, in particular the rural population and the unemployed, will significantly increase the quality of financial inclusion. Addressing data gaps, especially in the SME sector, should be a priority for policy makers. Overall, a clear separation of strategies for financial inclusion from the National Strategy for Financial Education clarifying quantitative goals and policies will be beneficial.

Contents

1. INTRODUCTION

Financial inclusion is steadily climbing up the priority lists of international development agencies and policy makers. It is considered a key enabler of poverty reduction and inclusive growth. In 2017, the World Bank Group announced its Universal Financial Access 2020 initiative. In the same year, G20 finance ministers and central bank governors committed to advancing financial inclusion worldwide.[1]

While there are clear opportunities to be seized, financial inclusion may come with costs when it is not accompanied by sound regulatory and supervisory frameworks (Sahay et al. 2015). There is, however, no question that high-quality financial infrastructure enhances both financial stability and financial inclusion. This has been the focus of financial inclusion policies in Armenia.

Financial inclusion in Armenia has advanced significantly during the last decade. For example, the credit-to-GDP ratio has increased by around five times since 2006, reaching around 48% in 2016. The ratio of bank deposits to GDP increased from 10% in 2006 to around 41% in 2016. Other quantitative indicators such as bank branch, credit, and deposit penetration have increased exponentially as well. The growth potential of the insurance sector, however, remains largely untapped. The main driver of the insurance sector was the introduction of third-party motor liability insurance in 2011. Pension reform was introduced in 2014, which replaced the pay-as-you-go system with the multi-pillar one. This flagship reform enables long-term savings to be generated in Armenia and significantly contributes to financial inclusion by building trust in the financial system.

The financial system in Armenia is bank-based, and the Central Bank of Armenia (CBA) is its single regulator. The CBA is also responsible for the protection of consumer rights and market conduct in the financial system. Broad-based banking reforms were implemented at the end of the 1990s and the beginning of the 2000s, which cleaned up the banking sector and laid the foundation for future development. The two big shocks in the last decade, the global financial crisis (GFC) and the Russian Federation crisis in 2014, put the resilience of the financial sector to the test. The financial sector has successfully weathered the shocks without undermining the trust in the system.

The CBA is the institution responsible for advancing financial inclusion and financial literacy in Armenia. Policies promoting financial inclusion in Armenia have been focused on building high-quality financial infrastructure on the one hand, and building trust in the financial system through financial education and consumer protection on the other. Important milestones of the financial infrastructure development include the creation of a credit bureau, the Armenian Card payment system, a financial mediator, a deposit guarantee fund, compulsory third-party motor liability insurance, pension reform, and the first venture capital firm.[2] On the demand side, CBA policies focus on consumer enhancement aimed at the design and oversight of an appropriate legal framework, effective resolution of consumer complaints, and an increase of consumers' financial literacy. In 2014, the National Strategy for Financial Education (NSFE) was spearheaded by the CBA with the specific goal of increasing financial literacy. The NSFE targets specific quantitative indicators, which will be assessed every five years

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[1] http://www.gpfi.org/news/baden-baden-g20-communiqu-commits-advance-financial-inclusion

[2] Unlike the other milestones, the first venture capital firm was not created by the CBA; it is rather mentioned to illustrate an important development of the financial infrastructure.

using the Financial Capability Barometer developed jointly by the Alliance of Financial Inclusion (AFI) and the CBA.

Despite the fact that the NSFE includes some quantitative targets for financial inclusion,[3] policies aimed at increasing financial inclusion in Armenia do not generally target specific indicators; the Central Bank of Armenia's national strategy of 2015–2017 focused on the development of financial system regulations, supervision, and financial infrastructure.

The absence of high-quality financial inclusion data is a major constraint for policy makers. Despite the efforts of the CBA in collecting accurate data, the absence of consistently collected financial inclusion data, especially in the SME sector, makes it difficult to identify obstacles to financial inclusion and tailor policies to address them.

Barriers to financial inclusion in rural and urban areas are different. From the supply side, physical infrastructure in rural areas is one of the main issues; from the demand side, financial literacy, lower income, and a lack of trust in the financial system are the main obstacles. The large share of the informal sector is another significant barrier to financial inclusion. Due to informality, financial institutions face high monitoring costs, which implies higher loan rates. As a result, the informal sector increases lending costs in the economy and hinders the financial inclusion of firms.

2. OVERVIEW OF THE ARMENIAN FINANCIAL SYSTEM

Armenia's financial system is dominated by banks. Banks account for 88% of the total assets of the system followed by credit organizations with 8.7% (Figure 1). There are no separate legal or regulatory definitions of microfinance institutions. Credit organizations cover the activities of microfinance in Armenia and are regulated by the CBA. Insurance companies account for only 1% of total assets.

After the banking sector reforms at the end of the 1990s and the beginning of the 2000s, the sector started its rapid development, bringing foreign capital and prominent global banks to Armenia. In 2005, a single framework of risk-based supervision was introduced and remained at the core of the supervisory and regulatory activities. The share of foreign capital in the statutory capital in 2016 was 62%. The banking sector has no state banks. In 2010, the Pan-Armenian Development Bank was established with the aim of providing long-term financing to export-oriented private enterprises to fund their investment projects. The statutory capital of the bank was AMD7.5 billion, with the Central Bank of Armenia being the only shareholder. The bank was transformed into an investment fund in 2017.

The financial system has experienced a rapid growth since the GFC. Figure 2 shows the evolution of credit and deposits as a ratio of GDP. The ratio of bank deposits to GDP increased from 10% in 2006 to around 40% in 2016. The credit-to-GDP ratio increased from below 10% in 2006 to about 50% in 2016.

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[3] For example, the NSFE has quantitative targets for the share of adults with banking cards and accounts.

Figure 1: Asset Allocation in Armenian Financial System (2016)

Other financial organizations — 2%

9 insurance companies 31 insurance companies' branches — 1%

35 credit organizations 205 credit organizations' branches — 9%

88%

17 banks 525 banks' branches

■ Banks' assets
■ Insurance companies' assets
■ Credit organizations' assets
■ Other market participants
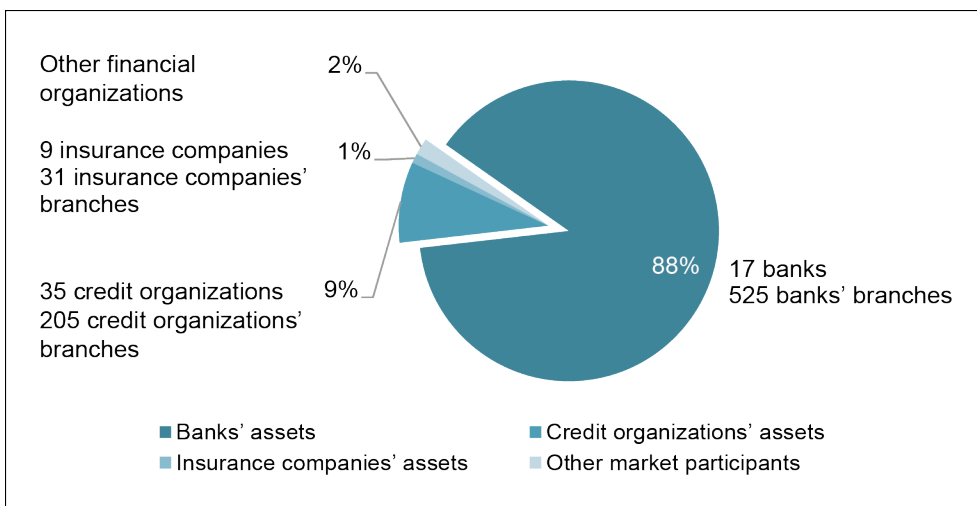
Source: Central Bank of Armenia.

Figure 2: Credit and Deposits as a % of GDP

■ Bank deposits to GDP (%)   ■ Domestic credit to private sector (% of GDP)
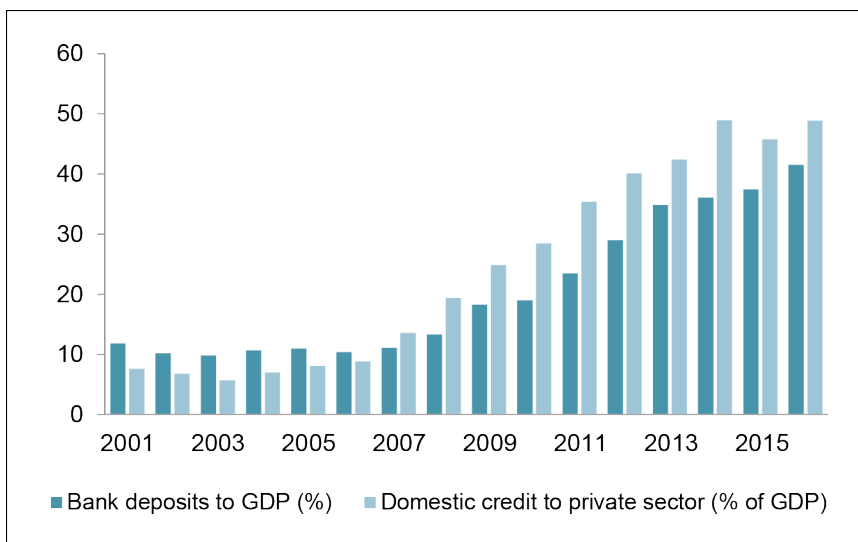
Source: Central Bank of Armenia.

Banking sector assets increased from AMD0.5 trillion in 2006 to AMD4.0 trillion in 2016. During the same period, banks' assets-to-GDP ratio quadrupled, reaching 80% in 2016 (Figure 3). The asset-side growth was driven by deposit growth of 658% as well as funding from IFIs and international donors.

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Figure 3: Assets of the Banking Sector in Armenia
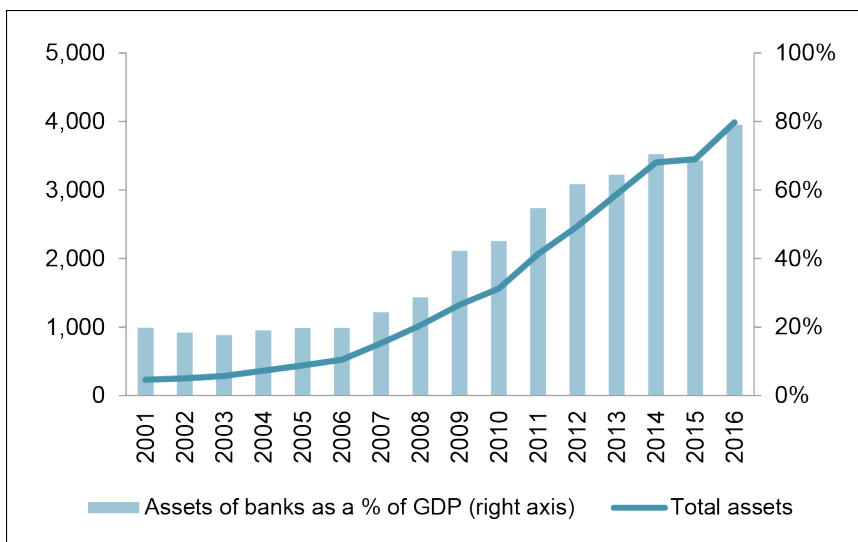
Source: Central Bank of Armenia.

Credit organizations underwent a similar development. Assets of credit organizations increased from AMD21 billion in 2006 to AMD391 billion in 2016 (Figure 4). The assets-to-GDP ratio reached 7.77% in 2016 from 0.78% in 2006. As of December 2017, there were 35 credit organizations in Armenia, including 31 universal credit organizations, three refinancing credit organizations, and one credit union. Credit unions and universal credit organizations extend loans, while refinancing credit organizations refinance the loans of banks and credit organizations. Table 1 shows the main differences between the regulatory requirements for different types of credit organizations. Both the number and branch coverage of credit organizations have increased rapidly: The number of credit organizations has more than doubled since 2006, reaching 35 in 2017, and the number of branches increased from two in 2006 to 205 in 2017.

Figure 4: Assets of the Credit Organizations in Armenia
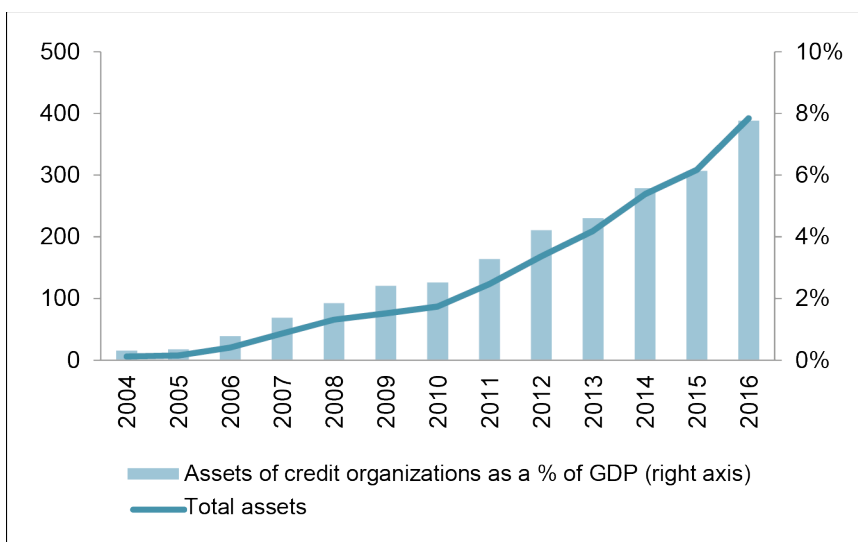
Source: Central Bank of Armenia.

**Table 1: The Difference Between Universal Credit Organizations,
Credit Unions, and Refinancing Credit Organizations**

Refinancing Credit Organization	Universal Credit Organization	Credit Union
• Capital requirement: AMD4,000 million	• Capital requirement: AMD150 million	• Capital requirement: AMD50 million
• Maximum exposure to single largest borrower: 30% of capital	• Maximum exposure to single largest borrower: 20% of capital	• Maximum exposure to single largest borrower: 25% of capital
• Capital adequacy ratio: 10%	• Capital adequacy ratio: 10%	• Capital adequacy ratio: 6%

The insurance market is small, accounting for only 1% of financial sector assets as of the end of 2016. Although the assets-to-GDP ratio of insurance companies almost tripled during the last decade, it is still quite low at around 0.9% (Figure 5). The main growth driver of the sector has been the introduction of compulsory third-party motor liability insurance in Armenia in 2011.

Figure 5: Assets of Insurance Companies in Armenia
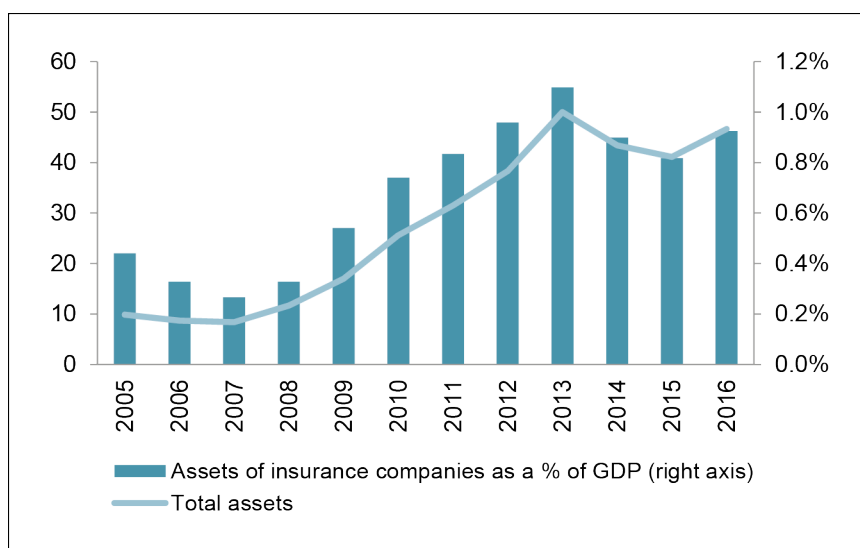
Source: Central Bank of Armenia.

Table 2 contains the complete list of market participants. Two facts are worth mentioning. First, the CBA increased minimum capital requirements for banks from AMD5 billion to AMD30 billion in 2014 effective in 2017, which triggered mergers in the banking sector. As a result, the number of commercial banks decreased from 20 to 17 in 2017. The number of branches, however, has increased. Second, the last row of the table shows the emergence of pension funds following the pension reform changing the pay-as-you-go system to the multi-pillar one in 2013.

Table 2: Financial Sector Participants

Year	2006	2008	2010	2012	2014	2016	2017
Commercial banks/ branches offices	20/299	21/380	20/405	20/479	20/509	18/526	17/526
Credit organizations/ branch offices[4]	17/2	23/48	32/66	32/114	32/149	34/169	35/208
Insurance companies/ insurance brokers	15/6	11/5	11/5	7/3	7/2	7/3	7/3
Pawnshops	64	70	128	143	142	146	116
Exchange offices/currency dealers	288/7	238/1	254/2	238/0	241/1	215/1	183/1
Money transfer companies/organizations engaged in processing and clearing of payment instruments and payment documents	3/1	11/7	9/6	7/4	7/4	7/4	6/5
Securities market participants/investment service providers/ investment fund managers/ pension fund	2/20/0/0	2/10/0/0	2/8/0/0	2/9/0/0	2/8/4/8	2/8/3/8	2/9/3/8

Source: Central Bank of Armenia.

3. STATUS OF FINANCIAL INCLUSION FOR INDIVIDUALS AND SMALL AND MEDIUM-SIZED ENTERPRISES

The wide range of financial inclusion definitions illustrates its multiple dimensions.[5] We chose three dimensions to measure financial inclusion: outreach, usage, and quality of financial services (Amidžić, Massara, and Mialou 2014). The numbers of bank branches and automatic teller machines (ATMs) per land mass and adult population cover the outreach dimension. The numbers of deposit accounts with commercial banks, banking cards per population, and loan accounts by economic activity are the main indicators describing the usage dimension. The quality dimension, described by factors such as legal framework and financial literacy level, is discussed in the following sections. We use the data from the IMF's financial access survey, the World Bank's Global Findex database, the ACRA credit bureau, and the Central Bank of Armenia.

Figure 6 illustrates the evolution of the number of bank branches since 2004. The number of bank branches per 100,000 adults in Armenia was around 12 in 2004, well below the world average of around 17. Branch penetration has been increasing rapidly in Armenia since then, surpassing the world average in 2010. In 2016, the number of bank branches per 100,000 adults in Armenia was 23 compared to the world average of 20.7. The number of bank branches per 1,000 km2 increased from 9 to 19 during the period 2004–2016.

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[4]   Number of branch offices does not include headquarters.

[5]   See Yoshino and Morgan 2017 for discussion of financial inclusion definitions.

Figure 6: Bank Branch Density in Armenia
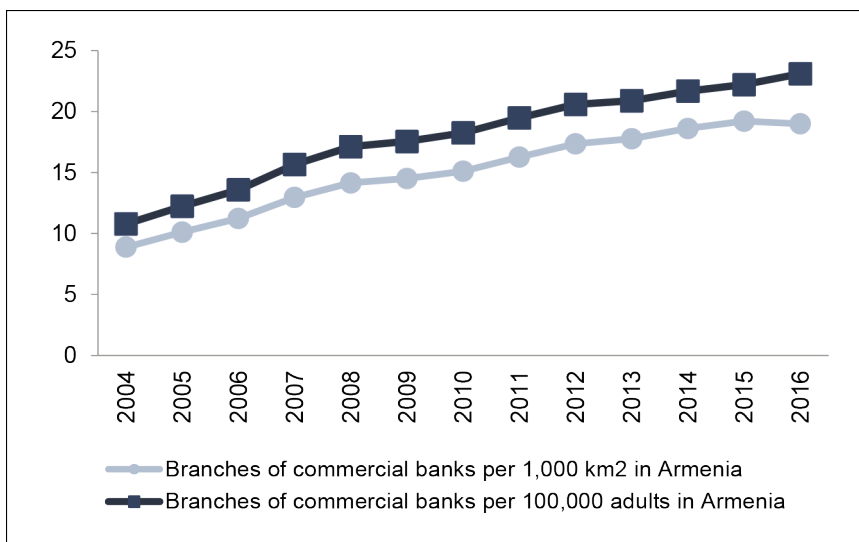
Source: IMF Financial Access Survey.

Figure 7 shows the impressive growth of ATM penetration in Armenia. The number of ATMs per 100,000 adults increased from five in 2004 to 61.14 in 2016, above the world average of 53.9. The number of ATMs per 1,000 km2 reached 50.3 from 2.5 during the same period. The distribution of ATMs, not surprisingly, is uneven between rural and urban areas. ATMs per 100,000 adults stood at 105.6 in urban areas compared to 9 in rural areas (Figure 8). Unfortunately, no consistent cross-country data on ATMs per rural and urban areas are available for comparison.[6]

Figure 7: ATM Density in Armenia
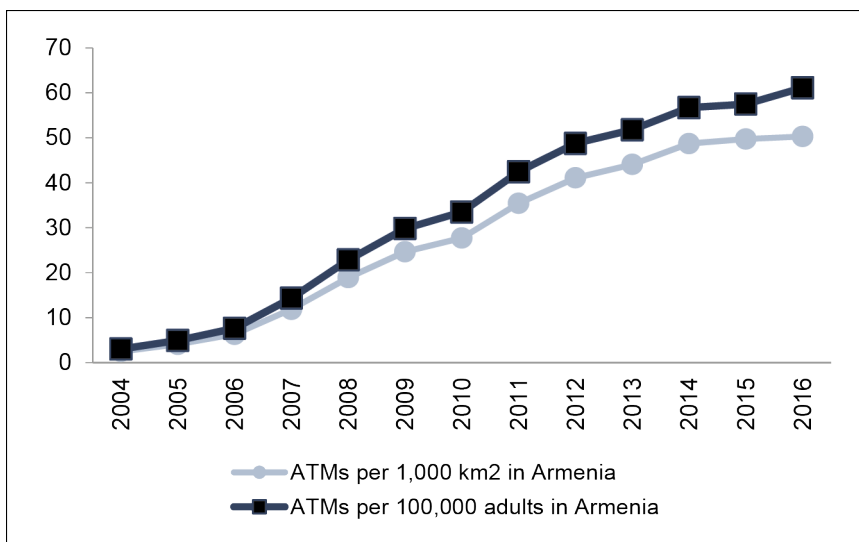
Source: IMF Financial Access Survey.

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[6] Barua, Kathuria, and Malik 2017 present a similar pattern for India.

Figure 8: ATM Density for Rural and Urban Areas
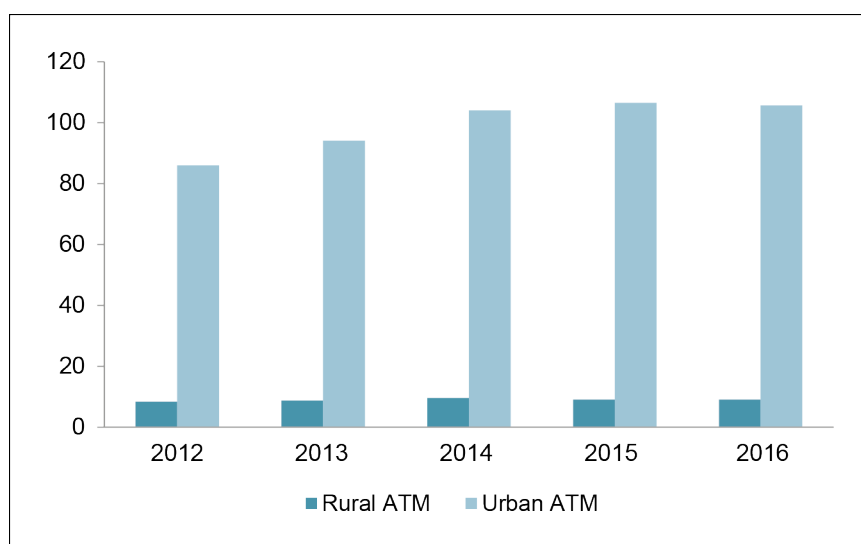
Source: Central Bank of Armenia.

We next turn to the usage dimension. The World Bank Global Findex database 2014 provides a summary of some of the main usage indicators: the number of banking accounts, formal savings, and formal borrowing. According to the database, in 2014 18% of the adult population had accounts with formal financial institutions, 2% saved with a formal institution, and 20% borrowed from formal institutions. About 9% of account holders saved formally; more than 80% saved using other methods only or did not save at all. Account penetration for women and the poorest 40% of the population was 14% and 11%, respectively.

Table 3: Global Findex Indicators for Armenia

Indicator	2011	2014
Account (% age 15+)	17.5	17.7
Account at a financial institution, rural (% age 15+)	15.5	15.1
Account at a financial institution, income, poorest 40% (% age 15+)	15.9	10.9
Account at a financial institution, female (% age 15+)	18.1	14.3
Borrowed any money in the past year (% age 15+)	..	47.3
Borrowed from a financial institution (% age 15+)	18.9	19.9
Borrowed from a financial institution, rural (% age 15+)	21.6	22.8
Saved any money in the past year (% age 15+)	10.5	21.0
Saved any money in the past year, rural (% age 15+)	9.2	13.4
Saved at a financial institution (% age 15+)	0.8	1.6
Saved at a financial institution, rural (% age 15+)	0.3	1.0

Source: World Bank, Global Findex.

Figure 9 shows the first component of the usage dimension, namely deposit account penetration. According to the IMF Financial Access Survey (FAS), deposit accounts per 1,000 adults increased from 215 in 2004 to 1,568 in 2016.

Figure 9: Deposit Account Penetration per 1,000 Adults
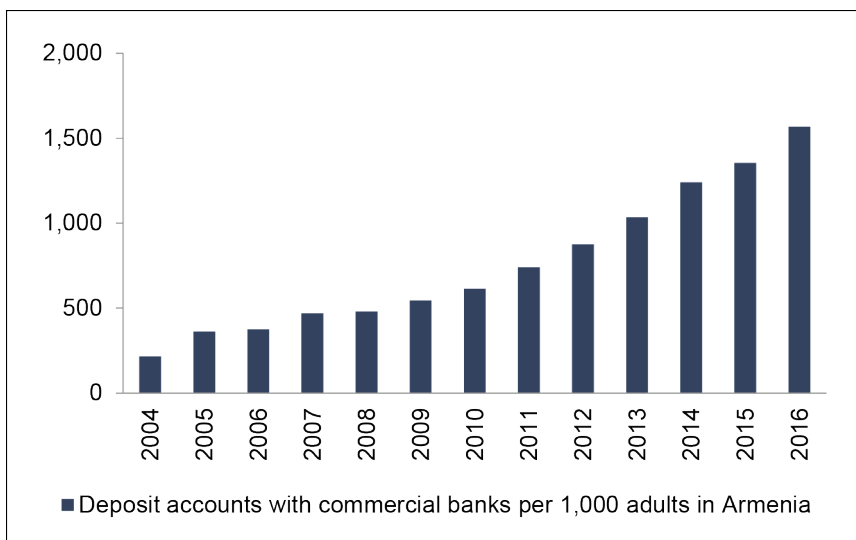
Source: IMF Financial Access Survey.

We use ACRA Credit Bureau data to construct the credit penetration indicator. The number of outstanding credits per 1,000 adults has been steadily growing, reaching 900 in 2016 from 515 in 2012 (Figure 10). The share of agricultural loans stayed at around 12% of the total credits for the last five years. Furthermore, around 40% of outstanding agricultural loans during these five years were originated by credit organizations. The disproportionately high share of credit organizations in the quantity of agricultural loans is due to their higher presence and branch availability in rural areas. During the five years consumer loans on average represented around 82% of all outstanding loans. The number of outstanding mortgage loans per 1,000 adults during the same period increased from 12 to around 14 (Figure 11). The Russian Federation crisis in 2014 did not have a visible impact on credit penetration.

Figure 10: Credit Penetration per 1,000 Adults
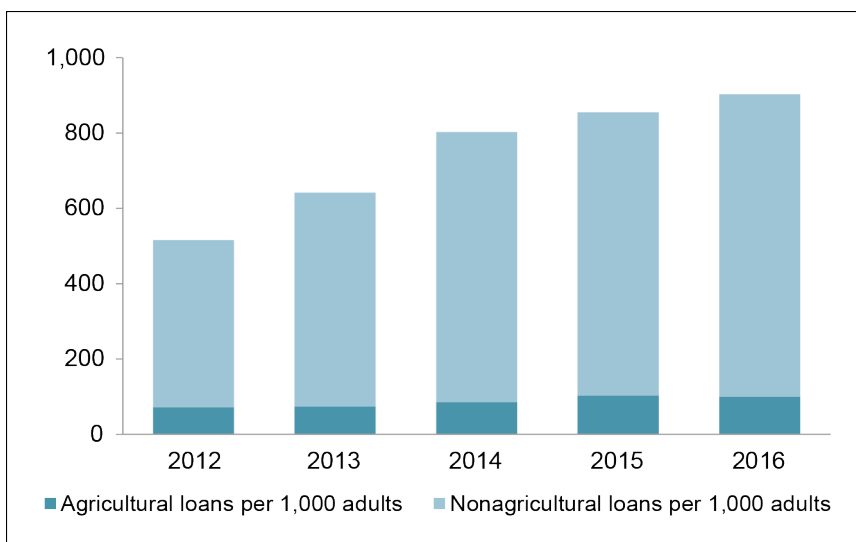
Source: ACRA Credit Bureau.

Figure 11: Number of Mortgage Loans per 1,000 Adults
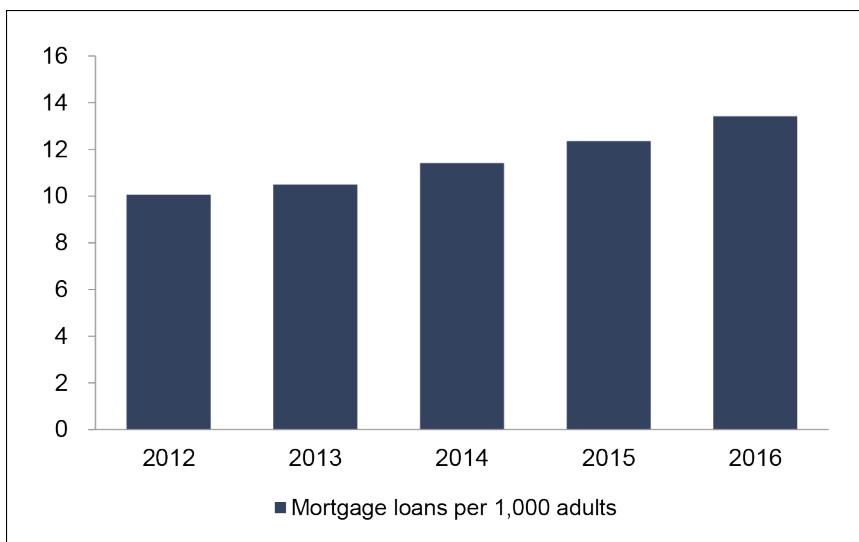
Source: ACRA Credit Bureau.

Another indicator of usage of financial services, the number of banking cards per 1,000 adults, increased from 91 in 2007 to 610 in 2016 (Figure 12).

Figure 12: Penetration of Banking Cards
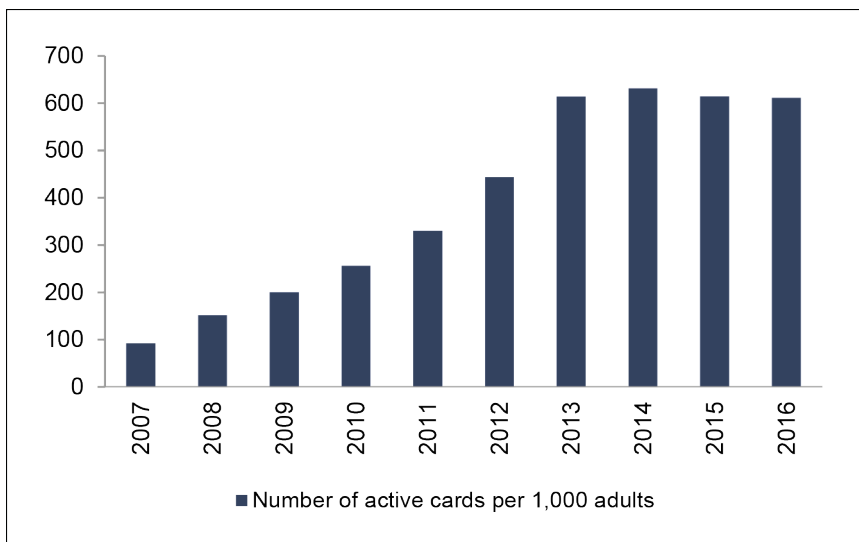
Source: Central Bank of Armenia.

The number of insurance contracts signed during the year shows the development of the insurance sector and closely resembles the dynamics of insurance-sector assets presented earlier. The development of the insurance sector has mostly relied on the 2011 reform of compulsory third-party motor liability insurance. Indeed, the number of insurance contracts per 1,000 adults spiked in 2011 and 2012 after the reform and has been flat since then (Figure 13). It reached around 300 in 2016 starting from 25 in 2010.

Figure 13: Number of Insurance Contracts per 1,000 Adults
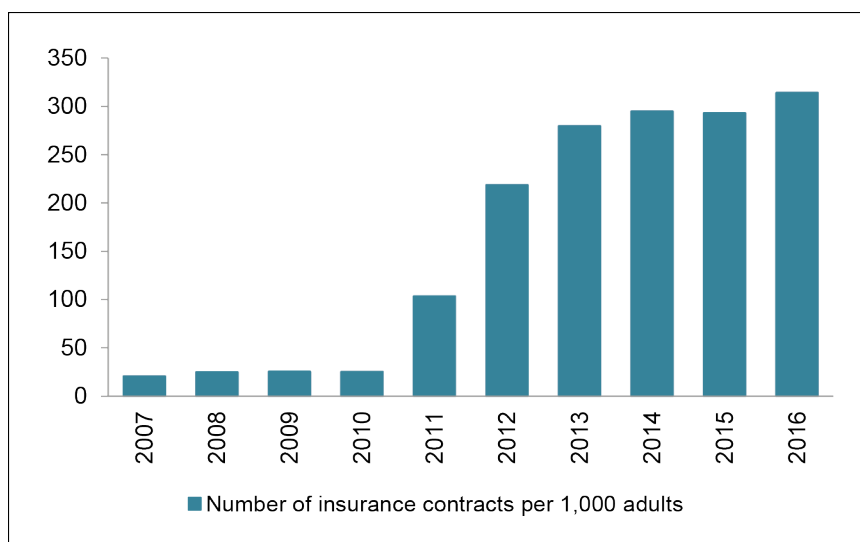
Source: Central Bank of Armenia.

Remittances are an important source of income for Armenian households. In 2016, the volume of remittances received from abroad was $1,330 million, which was around 13% of the GDP. According to the household survey conducted by the CBA in 2008, over a third of the households were receiving remittances and nearly a third of senders remitted to more than one household. Unfortunately, more up-to-date survey data are not available. For a better understanding of the underlying mechanisms, Table 4 lists the formal and informal remittance transfer channels. Remittances originating from the Russian Federation are mostly transferred through formal channels because of specialized banks providing low-cost money transfer services in CIS countries.[7] For example, postal services operator HayPost launched its money transfer system in 2005 with 2% and 4% transaction fees for individuals and legal entities, respectively. The transaction time is 5–30 minutes. HayPost provides such services in all villages. In 2016, the postal services partnered with one of the largest money transfer companies in the world, Ria Money Transfer, for money transfer services. Currently, there are a number of money transfer services in Armenia with relatively low transfer fees and wide geographical availability. Both physical availability and reasonable pricing of financial services matter. In the case of remittances, the combination of the two delivers sizable welfare gains for the rural population, which is highly dependent on remittance income, through financial inclusion.

Technology has also played a role in the development of the financial system in Armenia. Although mobile and Internet banking transactions are only a small proportion of all transactions, the usage of these services has been rising rapidly. Quantities and volumes of mobile, POS, and noncash transactions have been growing exponentially since 2012 (Table 5). For example, the number of active mobile money accounts increased seven times from 2012 to 2016. The number and the values of mobile transactions followed a similar pattern.

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[7] USAID remittance transfers to Armenia.

Table 4: Channels of Money Transfers

Formal Channels	Informal Channels
Bank transfers	Carried by oneself
Dedicated money transfer operators (MTOs): Western Union, MoneyGram, etc.	Carried by friends, relatives
	Courier services
	Hawala-type services[8]

Source: USAID remittances in Armenia.

Table 5: Accounts, Terminals, and Transactions

	2012	2013	2014	2015	2016
Number of registered mobile money accounts	55,309	100,402	251,684	276,311	344,143
Number of active mobile money accounts	5,383	5,419	10,884	15,906	35,511
Value of mobile money transactions (during the reference year) in millions of domestic currency	904	2,187	1,915	2,871	6,649
Number of mobile money transactions (during the reference year)	217,544	663,642	492,284	706,569	1,702,579
Number of POS terminals	6,674	6,834	6,954	6,414	6,971
POS transactions	16,329,438	20,919,815	29,927,927	32,553,561	33,782,030
Noncash transactions[9]	17,614,390	22,417,247	32,063,807	35,128,498	37,318,298

Source: Central Bank of Armenia.

In 2016, there were around 70,000 SMEs, including 58,000 micro and small, and 10,000 medium-sized enterprises. This sector employed 302,001 people, around 68% of the total number of employed. They comprise around 98% of all registered enterprises.

The OECD SME policy index in 2016 was 3.53 (from 0 to 5), above the average of the countries in the region (Figure 14). The index takes into account the legal and regulatory framework, bank financing, nonbank financing, venture capital, and financial literacy level for SMEs. According to the survey, around 32% of firms were discouraged from taking loans, with the most common reasons being complex procedures and high interest rates. The World Bank financial development data indicate that in 2013 46.2% of firms had bank loans or lines of credit. On the other hand, the 2013 enterprise survey indicated that 25.9% of firms identified access to finance as a major constraint. A proportion of 17.4% of firms used banks for their investment, which corresponded to 9.5% of the total investments. At the same time, financial institutions struggled with the lack of transparency in the real sector, which significantly increases the monitoring costs. The data availability issue for the SME sector remains a major obstacle to assessing the level of financial inclusion in the sector and designing policies to improve its access to finance. This is undoubtedly one of the areas for improvement that can yield sizable gain for policy makers.

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[8] Transfer by money brokers.

[9] Noncash transactions are: noncash transactions with ATMs, noncash transactions with payment cards, POS noncash transactions, e-commerce.

Figure 14: Access to Finance for Small and Medium-Sized Enterprises
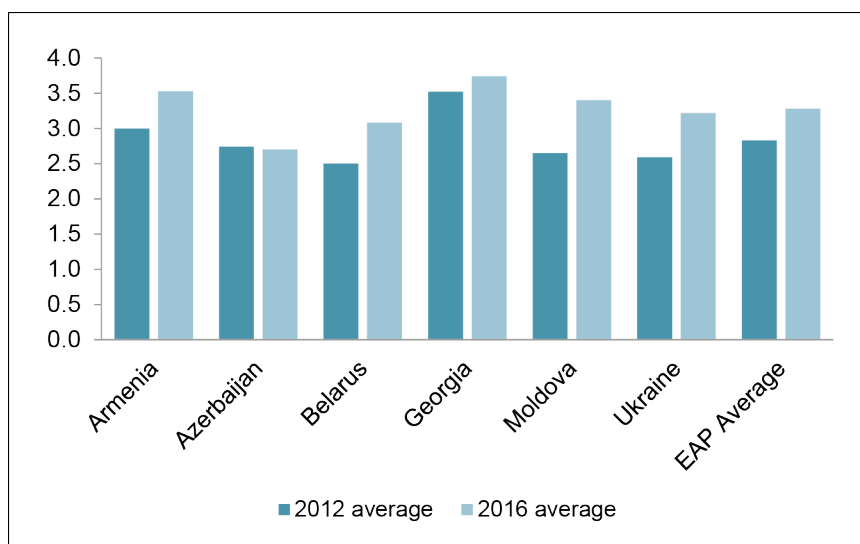
Source: OECD SME Policy Index.

Both outreach and usage indicators of financial inclusion have been steadily increasing during the last decade in Armenia. In many cases, Armenia scores better than the world average having started far below a decade ago. Though the data on rural and urban distribution are scarce, the available data indicate that the positive trends may mask uneven developments between rural and urban areas. While the dynamics is undoubtedly positive, the assessment of the current state of financial inclusion in comparison with peers needs to be well thought through. For example, factors such as income, geography, etc., have to be carefully controlled for.

4. BARRIERS TO FINANCIAL INCLUSION

Barriers to financial inclusion are divided into supply- and demand-side issues. Supply-side barriers in turn have three subgroups: market-driven factors, regulatory factors, and infrastructure limitations (Yoshino and Morgan 2017).

As discussed earlier, bank branches and ATMs are unevenly distributed between rural and urban areas. One of the main reasons behind the uneven distribution, of course, is the lower economic activity in rural areas. Another reason is the higher cost of providing financial services in villages due to the large number of small villages and hence the absence of economy of scale. As a result, the lack of convenient access points in rural areas is a constraint increasing the costs of financial services for the rural population.

Regulatory factors have not been identified as supply-side barriers. The minimum capital adequacy ratio is 12% for banks and 10% for universal credit organizations. The actual 20% average capital adequacy ratio of the financial system indicates that the capital adequacy requirement is not a binding constraint for banks and credit organizations and hence is not likely to impede financial inclusion. The regulation does not differentiate by the size of loans and deposits. There are no regulatory barriers for innovative technologies, such as telephone banking, either.

Among the infrastructure factors, the limited availability of transportation to access the bank branches or ATMs in the rural areas is the main barrier. In the context of the lack of ATMs and bank branches in rural areas, the underdeveloped basic infrastructure such as roads and transportation is a serious limitation.

Demand-side barriers are divided into three subgroups: lack of funds, lack of knowledge, and lack of trust (Yoshino and Morgan 2017).

The 30% poverty rate is undeniably a demand-side barrier to financial inclusion. The lack of knowledge about financial products and services has also been indicated as a barrier. According to the 2015 Global Financial Literacy survey (Klapper, Lusardi, and Van Oudheusden 2015), only 18% of Armenian residents are financially literate.[10] The 2012 World Bank Financial Capability survey indicated that the trust in the banking system is 61.7% and 30% of the respondents abstain from account ownership because of the lack of trust. The lack of trust is partly associated with the collapse of the Soviet Union, which resulted in the loss of households' savings in the Soviet banks. The Government of Armenia started the promised compensation plan; however, the scarring effect of this episode still remains today.

Supply-side barriers exist for insurance as well. The compulsory third-party motor liability insurance provided a boost for insurance companies; however, significant opportunities remain in health and agriculture insurance. Health insurance services are currently underutilized due to information asymmetry and adverse selection. Currently, individuals can access health insurance mainly through employers. Mandatory health insurance is a clear opportunity to provide access to health insurance as it will eliminate the adverse selection and will increase the quality of health services due to increased competition. High-quality e-health infrastructure has to be developed to support health insurance and decrease the severity of asymmetric information. Agricultural insurance is also under-researched and underutilized. Agricultural insurance has the potential to provide higher returns from financial inclusion compared to the credit for agricultural purposes, especially for small farms, which are subject to serious financial stress after weather shocks. Several initiatives have been announced in this area; the implementation remains to be seen.

5. REGULATORY FRAMEWORK

5.1 Regulatory Agencies

The Central Bank of Armenia is the sole financial system regulatory authority. In 2005, a single framework for risk-based financial regulation and supervision was introduced. The Central Bank was given authority to regulate and supervise the activities of all participants of the financial system. Consequently, the CBA is also responsible for the licensing of the banks, credit organizations, insurance companies, etc. There is no separate legal or regulatory definition of microfinance organizations in Armenia. All the activities of banks and credit organizations are governed by the Constitution of the Republic of Armenia, the Civil Code of the Republic of Armenia, other laws of the Republic of Armenia, international agreements of the Republic of Armenia, and, when prescribed by law, legal normative acts of the Central Bank of the Republic of Armenia. The Law of the Republic of Armenia on Bankruptcy of Banks, Credit Organizations, and Insurance Companies governs the insolvency and bankruptcy procedures of these

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[10] The survey is conducted by Standard and Poor jointly with Gallup, the World Bank, and the Global Financial Literacy Excellence Center at the George Washington University.

institutions. These regulations cover the risks of having unlicensed organizations and individuals by stating that no person shall engage in activities prescribed by the law on credit organizations without a proper license and, if not observed, a legal liability shall be imposed thereon by the Legislation of the Republic of Armenia. Thus the previously mentioned regulation eliminates the legal risk of unlicensed and informal institutions providing credit.

5.2 Banks and Credit Organizations

Banks in Armenia are licensed by the Central Bank of Armenia. Credit organizations mainly consist of refinancing and universal credit organizations. The law on credit organizations, however, defines several types of credit organizations: credit unions, savings unions, leasing companies, factoring companies, universal credit organizations, and refinancing credit organizations. Only the banks can take deposits from natural and legal persons. Accordingly, the regulations for banks are much more stringent. Table 6 illustrates the difference in prudential measures between banks and credit organizations. In line with the principles of risk-based financial regulations, credit organizations are subject to significantly fewer prudential measures.

**Table 6: Difference in Prudential Measures Between Banks
and Credit Organizations**

Banks	Universal Credit Organizations[11]
• Capital requirement: AMD30 billion	• Capital requirement: AMD150 million
• Minimum capital adequacy ratio: 12%	• Minimum capital adequacy ratio: 10%
• Maximum risk on a single borrower: 20%	• Maximum risk on a single borrower: 25%
• Maximum risk on major borrowers: 500%	
• Maximum risk on one related party: 5%	
• Maximum risk on all related parties: 20%	
• Minimum ratio of highly liquid assets to total assets (all currencies): 15%	
• Reserve requirement: 18%	
• Maximum ratio of foreign currency open position to total capital: 10%	
• Minimum ratio of banks' highly liquid assets to demand liabilities: 60%	

5.3 Other Regulatory Measures

In addition to regulating the banks and credit organizations, the CBA adapts measures to make the financial system more inclusive and accessible for the public.

5.3.1 Protection of Consumer Rights

The Consumer Rights Protection and Market Conduct division within the CBA is responsible for consumer rights protection in the financial system. The responsibilities include the creation and amendment of necessary legislation to ensure consumer rights protection, the creation and improvement of business conduct codes for financial

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[11] The prudential measures of other types of credit organizations are discussed in Table 1.

institutions, the implementation of programs to raise financial knowledge and awareness among consumers, the development and improvement of financial education tools, the development and administration of a special web page (www.abcfinance.am) designed for financial-sector consumers, and the operation of a hot line. The division has initiated changes such as disclosure requirements for effective interest rates and simplified loan fact sheets containing important information about consumer loans in an easily accessible manner.

5.3.2　Deposit Guarantee Fund

The Deposit Guarantee Fund of Armenia is a noncommercial organization founded by the Central Bank of Armenia in accordance with the RA law on the "Guarantee of remuneration of bank deposits of physical persons" in 2005. The maximum amount subject to remuneration of guaranteed deposits is 10 million drams ($20,700). The maximum amount of foreign-currency deposits subject to remuneration is 5 million drams. The maximum amount was doubled in 2016 (Figure 15). The Fund covers the deposits of physical persons and individual entrepreneurs.

Figure 15: Amount of Guaranteed Deposits in Armenia
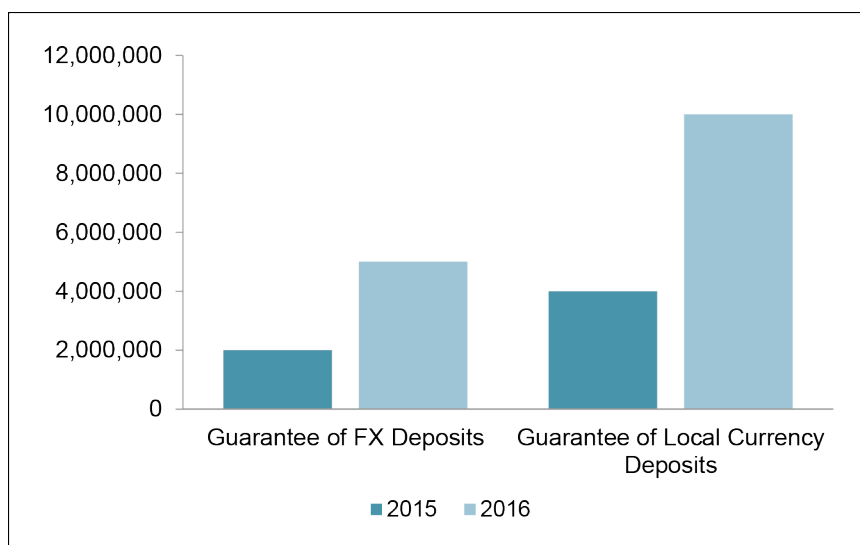
Source: Central Bank of Armenia.

5.3.3　Financial System Mediator

Another important element of the infrastructure is the Financial System Mediator (FSM) office. The Office has been functioning since 2009. Its founder is the Central Bank of Armenia. The goals of the Mediator are the protection of consumer rights and interests in the financial market; fast, effective, and free-of-charge review and handling of claims of clients; and enhancement of the public confidence in the financial sector. During 2016, 4,735 complaints were received, including 4,118 complaints related to the financial sector, of which 2,989 were eligible under the law to be reviewed by the Mediator. Some 40% of all claims were settled in favor of the clients and 29.8% of the claims were partially settled. In monetary terms, a total of $395,150 was compensated to clients as a result of the FSM's work. This figure does not cover the settlements with nonmonetary reimbursements when clients sought claims such as changing the terms of the loan contract or having an overdue loan reclassified in favor of the client. The largest compensation in 2016 was $16,752.

5.3.4 Compulsory Insurance

In 2010, the CBA introduced compulsory motor third-party liability insurance to effectively manage the risks of car accidents. As a result, the financial assets and liabilities of insurance companies increased sizably; the number of registered insurance agents increased from 65 in 2008 to 5,524 at the end of 2011.

5.3.5 Guarantor Protection Measures

In August 2017, guarantor protection measures were introduced by the CBA. The new measures have two implications: increased guarantor knowledge about responsibilities in cases of borrower default and access to loan repayment information.

6. POLICIES TO PROMOTE FINANCIAL INCLUSION

CBA policies to promote financial inclusion are aimed at synergies between financial stability and inclusion. Focusing on synergies between financial inclusion and stability means targeting actions that do not move the financial system along the financial development-stability frontier but rather shift the frontier. What does this mean in practice? In practice, the CBA is focused on high-quality financial infrastructure; financial infrastructure improves development-stability trade-offs as it addresses market failures in the system. Table 7 illustrates the wide array of policies dealing with market failures impeding financial inclusion.

Table 7: Policies Promoting Financial Inclusion in Armenia

Policy	Date of Introduction	Function
ACRA Credit Reporting	2004	Data gathering and processing
ArCa Armenian Card	2000	Armenian payment and settlement system
Financial System Mediator	2009	Protection of consumers' rights and solving the disputes between financial institutions and consumers
Deposit Guarantee Fund	2005	Guarantee of remuneration of bank deposits of physical persons
Moveable Collateral Registry	2015	Online collateral registry for moveable assets
Arus system	–	Single money transfer system
Idram, Mobidram	2004	Providing e-money services
Consumer Right Protection	2007	See the subsection
SME Development National Center	2002	Supporting the SME sector
Consumer Loans General Fact Sheet	2014	General information about other possible loan options
Pension Reform	2014	Multi-pillar pension system
Mandatory Insurance	2010	Compulsory third-party motor liability insurance
Home for Youth	–	Mortgage loans for young people
Guarantor Protection Measures	2017	Raising awareness of guarantor responsibilities
Mandatory Health Insurance	2017	A pilot program on mandatory health insurance
Venture Capital	2013	Provide funding, expertise, and networks to promising technology-driven startups
Agriculture Insurance Program	2018	Launch a pilot agriculture insurance program
Identification Cards	2014	Document certifying the identity of a citizen

There is no national financial inclusion strategy with quantitative targets. However, in the National Strategy for Financial Education there is a specific 30% target by 2019 for "Inclusion in the formal financial system." A national financial inclusion strategy would help to bring together the wide range of stakeholders and define quantitative targets.

6.1 Market Infrastructure

6.1.1 ACRA Credit Reporting

"ACRA Credit Reporting" CJSC, the first private credit bureau in Armenia, was founded by the CBA in 2004. The primary objective of credit bureau operations is data gathering from the banks, credit organizations, utility and insurance companies, processing, and timely updating of information, as well as safeguarding the information and preserving the necessary confidentiality. Credit reporting contributes to financial inclusion as it eliminates the information asymmetry between lenders and borrowers that could result in an inefficiently low credit. Centralized access to credit information also diminishes the information monopoly that a creditor has over its borrowers, leading to a better and healthier competition between creditors.

6.1.2 ArCa Armenian Card

The ArCa Armenian card was also established by the Central Bank with the goal of establishing and developing a trusted payment system that would allow card holders to transact with low fees. It allows the banks to issue and acquire ArCa, Mastercard, VISA, and other payment cards. The settlements in the system are implemented according to the principle of multilateral netting while the final settlement is done via correspondent accounts of participant banks with the Central Bank.

6.1.3 Moveable Collateral Registry

The Moveable Collateral Registry is an online registration platform for moveable assets, working under the authority of the Ministry of Justice. Established in 2015, this institution helps in overcoming information asymmetry, enabling creditors to enquire whether a moveable property has been previously collateralized for another credit.

6.1.4 Pension Reform

In 2014, a new pension system was introduced in Armenia for people born after 1 January 1974. The pension reform replaced Armenia's pay-as-you-go system with a multi-pillar system. Individuals with salaries of less than AMD500,000 contribute to their pension accounts in the amount of 5% of their income, while the remaining 5% is paid for the participant from the state budget to secure the 10% required contribution. The reform is aimed at replacing the dysfunctional pay-as-you-go system with a system that allows the population to have a meaningful pension along with long-term budget sustainability. The reform will also lead to the availability of long-term local funding and the promotion of a saving culture, which will have considerable long-term real effects through capital deepening.

6.1.5 ARUS System

The Central Bank of Armenia is intending to introduce the Armenian Remittances Unified System (ARUS), which will connect all financial institutions and will be a multifunctional tool for offering financial services to retail customers, such as account-to-account transfers, credit card-to-credit card transfers, and cash-based transfers, as

well as combinations of these. The design and implementation of this system was discussed in the CBA national strategy for 2015–2017, but it is still in the testing stage. The system will:

- be a retail payment system with free competition, which will ensure affordable and high-quality services;

- exclude the risk of any money-transfer provider having a dominant and dictating position;

- increase security and efficiency;

- decrease the costs of transactions;

- decrease the effect of foreign payment systems' insolvency on Armenia's financial system and increase the confidence of the society in the financial system.[12]

6.2 Targeted Policies

6.2.1 SME Development National Center

In 2016, 98% of businesses were SMEs with a 68% employment share. The government of Armenia established the "Small and Medium Entrepreneurship Development National Center" fund (SME DNC) in 2002. The SME DNC is authorized to provide state support to SMEs. The support is provided through the implementation of annual SME state support programs with resources allocated from the state budget. This fund also gives technical and financial assistance to SMEs operating in the country. In 2016, $319,220 were dedicated to the SME DNC from the state budget. Table 8 summarizes the Center's activities.

Table 8: Assistance Programs for SMEs

Technical Assistance	Financial assistance
• Information and consulting on all the aspects of doing business in Armenia • Promotion and branding of local products • Sales promotion • Export promotion • Startup support • Supporting in realization of new technology/innovation	• Provision of loan guarantees • Equity financing • Startup support • Partial subsidizing of credit interest rates

6.2.2 Home for Youth

The mission of the Home for Youth Refinancing Credit Organization CJSC is to provide mortgages with favorable conditions for young families.[13] Within the framework of the program, a mortgage loan is provided for at least 10 years with a maximum interest rate of 10.5%. The government subsidizes a part of interest payments: 2% in case of real estate in Yerevan; 4% in case of other regions.

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[12] CBA's press release (25.07.2016) information on the "ARUS" system.

[13] The definition of a young family according to the Home for Youth project is a family in which the sum of the ages of the spouses does not exceed 65.

6.2.3 Mandatory Health Insurance

On 1 September 2017, a new procedure for the provision of medical services within the social package for state employees came into force, a pilot program approved by the government of Armenia. The number of beneficiaries at this stage is in the range of 80,000 to 100,000 people. The new procedure allocates the state package to state employees through insurance companies. If implemented successfully, it will include 612,000 socially disadvantaged citizens in the next stage. The final aim is the implementation of universal mandatory health insurance.

6.2.4 Agriculture Insurance Program

In 2018, the Armenian Ministry of Agriculture will launch a pilot agriculture insurance program, which is already included in the 2018–2020 budget plan.

6.2.5 Identification Cards

In 2014, voluntary ID cards were introduced in Armenia, which have memory chips containing each citizen's data. This enables citizens to acquire an e-signature, which can be used to carry out their tax obligations online, use them in banks, etc.

7. FINANCIAL EDUCATION AND FINANCIAL LITERACY

7.1 Status of Financial Literacy

Armenia has a lot of room to increase the financial literacy of its population. The low overall level of financial literacy, however, masks a sizable heterogeneity among social, economic, and demographic backgrounds. The underlying reasons are also quite different. For example, the attitude of people towards saving is the most important factor dragging the overall level of financial literacy in Armenia down, whereas financial knowledge and behavior are generally on a much higher level. The heterogeneity of financial literacy levels, both in terms of population background and underlying financial literacy dimensions, has important implications for the design and implementation of financial education policies. For example, it calls for targeted financial education policies aimed at the most vulnerable groups.

We used the 2010 OECD International Network for Financial Education (INFE) survey,[14] the 2014 Global Financial Literacy survey,[15] and the 2014 Financial Capability Barometer survey[16] to assess the status of financial literacy in Armenia.

In 2010, the OECD INFE conducted a pilot study in 14 countries in order to assess the financial literacy of people across countries and various sociodemographic backgrounds.[17] The survey consisted of three dimensions: financial knowledge; behavior; and attitude towards various aspects of financial literacy including budgeting, financial planning, and financial product choice (Atkinson and Messy 2012). Armenia scored in the lowest group along with Poland and South Africa on the basis of a simple average of the three financial literacy dimensions used in the survey (see Table 9).

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[14] Atkinson and Messy 2012.

[15] Klapper, Lusardi, and Van Oudheusden 2015.

[16] Financial Inclusion in Armenia: The Financial Capability Assessment Project (FCAP) 2014.

[17] The countries that participated in the study were Albania, Armenia, the British Virgin Islands, the Czech Republic, Estonia, Germany, Hungary, Ireland, Malaysia, Norway, Peru, Poland, South Africa, and the UK.

The low overall score of Armenia was the result of a very low score in the attitude dimension. According to the survey, 46% of those surveyed scored highly on knowledge questions, 41% did well on financial behavior questions, and only 11% had a positive attitude towards long-term saving. To show the contrast, the second and third lowest scores in the attitude dimension were in Poland and Estonia with 27% and 46%, respectively. Armenia's position in the financial knowledge and behavior dimensions was close to the average for the studied countries.

The sociodemographic background for the OECD INFE survey included gender, age, income, education level, and attitude towards risk. In Armenia, the female population on average had lower financial knowledge and behavior results, but scored similarly in terms of attitude. The proportion of females who had a high financial knowledge score was 41% compared to 51% of males. For financial behavior, the results were 38% and 43% for females and males, respectively. The distribution of scores across age groups revealed an interesting pattern, which was pronounced only in Armenia. According to the survey, the level of financial literacy decreases significantly with higher age. Financial literacy in the low-income group is lower than in the average- and high-income groups. There is, however, no sizable difference between the financial literacy levels of average- and high-income groups. A similar pattern is observed in terms of education levels: Financial literacy levels increase with the education level.

Table 9: Results of OECD Financial Literacy Survey
(%)

Country	High Knowledge Score	High Behavior Score	High Attitude Score
South Africa	33	43	54
Norway	40	59	57
Peru	41	60	71
Albania	45	36	69
Armenia	46	41	11
Poland	49	43	27
Malaysia	51	67	63
United Kingdom	53	51	49
British Virgin Islands	57	71	67
Czech Republic	57	48	62
Ireland	60	57	49
Germany	58	67	63
Estonia	67	21	46
Hungary	69	38	69

Source: Atkinson and Messy (2012).

The results of the Global Financial Literacy survey conducted by S&P in 2014 are similar to the OECD INFE conclusions. Armenia has quite a low level of financial literacy with only 18% of adults being financially literate. According to the survey, 36% of the respondents reported taking out another loan to cover old ones, and only 6% of the respondents saved with a financial institution, although 64% mentioned that they saved for unexpected events.

The latest nationwide financial literacy survey in Armenia, the Financial Capability Barometer survey, was conducted in 2014. It was financed by the Alliance for Financial Inclusion (AFI) and conducted by the CBA. The survey was conducted with 1,536 individuals and consisted of 118 questions on seven topics: understanding

financial and macroeconomic concepts; efficient management of personal budget; saving and long-term planning; efficient debt management; information collection, comparison, and decision-making; protection of personal rights; and fraud. According to the survey, respondents scored much higher on knowledge questions than on behavioral questions. For example, 65% of respondents scored highly on the questions on effective management of personal budget, but only 10% scored highly on the behavior dimension of the same category. Logistic regression analysis (Mkhitaryan forthcoming) showed that on average, financial knowledge is positively associated with behavior. Moreover, in line with the OECD INFE survey results, the urban population behaves better financially, employment increases the probability of better financial behavior, and the urban population is likely to have a more positive attitude towards formal financial institutions.

The nationwide surveys indicate that the level of financial literacy in Armenia needs substantial improvement. The attitude towards long-term saving and trust towards formal institutions are among the main negative factors behind the low level of financial literacy. A more granular analysis suggests that the financial literacy levels of different socioeconomic and demographic groups vary significantly. On average, the female population has a lower level of financial literacy. A higher age, unemployment, and lower education level tend to be negatively associated with financial literacy levels. The rural population has a lower level of financial literacy than the urban population. Therefore, financial education projects targeted towards specific groups can be particularly useful tools for increasing financial literacy in Armenia.

7.2 Financial Education Strategy

Financial education in Armenia is organized around the National Strategy for Financial Education (NSFE). The NSFE has been led by the CBA and was formally adopted by the government in 2014. The NSFE's mission is to increase the level of financial literacy in Armenia, which will contribute to increased financial stability, financial inclusion, and welfare for the people of Armenia. According to the NSFE, its main goal is to create and develop an institutional framework that will lead to higher financial literacy levels in Armenia. More precisely, it includes: (i) the formation of the institutional body responsible for the NSFE; (ii) the inclusion of financial literacy in schools; (iii) the creation of infrastructure for enhancing financial literacy for adults; and (iv) the establishment of processes that will allow the effectiveness of financial literacy projects to be coordinated, monitored, and evaluated. The NSFE specifies quantitative goals, which are presented in Table 10.

The NSFE specifies quantitative targets for financial literacy as well as financial inclusion in Armenia. Targets are set for every five years starting from 2014, the year of the NSFE adoption, which will be evaluated based on the Financial Capability Barometer. The logic of the Financial Capability Barometer discussed in the previous section is based on the quantitative targets of the NSFE since it is the main tool for assessing the strategy's effectiveness. A Financial Capability Barometer survey will be conducted every five years. The 2012 numbers are based on the World Bank's Diagnostic Review of Consumer Protection and Financial Literacy conducted in 2012.

**Table 10: Quantitative Goals of the National Strategy
for Financial Education of Armenia**
(%)

% of Adults	2012	2019	2024	2029	2034
1. Financial literacy	–	30	50	60	75
1.1. Effectively managing personal and family budgets	14	30	50	75	90
1.2. Saving for the long term	14	30	50	75	90
1.3. Effectively managing debt	47	60	70	80	90
1.4. Comparing different options before using financial products	1–12	30	50	75	90
1.5. Assigning importance to professional advice	8	30	50	70	80
1.6. Actively defending their personal rights	9	30	50	75	90
1.7. Having positive attitude towards personal financial management	–	30	50	75	90
2. Inclusion in the formal financial system	–	30	50	75	90
2.1. Having bank deposit	6	30	50	75	90
2.2. Share of adults with debt having credit from formal financial institution	14	30	60	80	90
2.3. Having bank account or banking card	25–40	50	65	75	90
2.4. Using insurance product	–	30	50	60	70
2.5. % of employed actively managing pension accounts	–	30	50	75	90

The main stakeholders of the NSFE include the CBA, the OECD, the World Bank, the AFI, and the Armenian Ministry of Education. Following the adoption of the strategy, the CBA created a national steering committee for the NSFE for the effective management of the process. The head of the steering committee is always a CBA board member. The committee, among others, includes members from the CBA, the Ministry of Education, the Ministry of Labor and Social Affairs, the Ministry of Finance, the Ministry of Territorial Administration and Development, and Yerevan municipality. It also includes members from the private sector. The NSFE has a five-year time frame with the coordinating body meeting at least once a quarter.[18] It has two working groups: financial education in schools and financial education for adults. Table 11 lists specific projects under the NSFE conducted by the CBA and its partners.

Upon agreement with the Republic of Armenia Ministry of Education and Science, financial education at schools will be implemented starting from 2018 by integrating the financial literacy component in the school curriculum. Working subgroups set up under the NSFE in 2016 are tasked to develop educational standards and programs for the following four subjects: "Me and the environment," "Mathematics," "Algebra," and "Social Studies."

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[18] See OECD/INFE Policy Handbook (2015) for more details on the NSFE.

Table 11: Financial Literacy Projects

Project	Target Audience	Delivery Method	Content	Delivering Organization	Evaluation
My Financial Month	Whole population	Different programs implemented both for awareness raising and financial education for different target groups	Different topics related to personal finance management	CBA and other public and private organizations	Surveys
www.abcfinance.am and social media	Whole population	Web page, Facebook, Twitter, YouTube, etc.	Different topics related to personal finance management, calculators, shopping tools, financial games, etc.	Consumer Rights Protection and Financial Education Center of CBA	Focus groups
Seminars for different target groups	Rural population, youth, children, journalists, etc.	Seminars, training sessions	Different topics related to personal finance management	Consumer Rights Protection and Financial Education Center of CBA	Surveys
Educational materials on different topics	Whole population	Different topics related to financial services and systems	Brochures, leaflets, etc.	CBA and other public and private organizations	
Rural workshops	Rural population	Seminars	Different topics related to personal finance management	Consumer Rights Protection and Financial Education Center of CBA	Surveys
School curriculum	Schoolchildren	Different topics related to financial services and systems	Different topics related to personal finance management	CBA, Ministry of Education, and other public and private organizations	Surveys

The Rural Financial Education Project is a part of the NSFE. The special program for regions of Armenia was implemented in 2016 and included two-day workshops on personal finance management. During the year a total of nine seminar instructors from six regions underwent training and received qualification certificates, which allowed them to conduct seminars in 53 rural communities.

"My finance month," a financial education initiative, took place in the framework of the NSFE between 1 and 30 April 2016. Highlighting the importance of effective management of personal finances is the main goal of the program, which is carried out in collaboration with more than 35 public and private institutions. During the year, a series of articles posted on social networks featured financial topics such as budget management, a payment and settlement system, loans, deposits, insurance, securities, and so on. The program is aimed at helping the public get a clear understanding of finance and, in particular, financial services. The Citizen Project, another financial education initiative, was carried out in 2016. The main goal was to give students and teachers tools for identifying and studying the financial problems in their communities and offer alternative solutions to them. A total of 35 social study teachers were trained to hold workshops involving more than 600 middle and high school students.

The table below provides a summary of CBA initiatives and activities in the framework of consumer financial capacity building and raising public awareness.

7.3 Effectiveness of the Financial Education Strategy

The main tool for assessing the NSFE effectiveness is the Financial Capability Barometer, which will allow systematic diagnostics to be carried out. The first Financial Capability Barometer survey was conducted in 2014, with the next being planned after the five-year NSFE time frame ends. The assessment of the policies, until now, has been done for only a number of projects. Given the large number of financial education initiatives, the assessment of project effectiveness and its clear documentation should be a priority.

The Rural Financial Education Project, conducted in 2016 as a part of the NSFE, is the first large-scale project that has been systematically assessed. In December 2016, 100 villages were randomly selected to form treatment and control groups, each consisting of 50 villages. After the selection of the groups, two-day financial education classroom workshops were conducted in the treatment group. Pre- and post-treatment surveys were conducted in order to assess the effectiveness of the treatment. The post-treatment survey was conducted upon completion of the classroom workshops. The results of logistic regression analysis (Kacarevic et al. 2018) suggest significant short-term effects of treatments on knowledge. To assess the longer-term impact a follow-up post-treatment survey will be conducted.

The effectiveness of financial education policies is hard to evaluate. While it is relatively straightforward to measure the knowledge improvement as a result of interventions, measuring the actual behavior is complex. The CBA, jointly with the CGAP and GRID Impact, is currently designing a new financial literacy project in rural areas that emphasizes behavioral aspects of learning rather than solely concentrating on traditional classroom methods of learning. The design of the assessment of effectiveness is one of the main challenges and is an integral part of the project.

8. CONCLUSIONS AND POLICY RECOMMENDATIONS

Financial inclusion and development have steadily advanced in Armenia during the last decade. The total financial system credit-to-GDP ratio increased from 8.8% in 2006 to 48.9% in 2016. Banks' assets-to-GDP ratio quadrupled during this period, reaching 80% in 2016. Quantitative indicators such as bank branch, credit, and deposit penetration have increased exponentially. The positive developments, however, may mask the uneven distribution of improvements between rural and urban areas. For example, there were 73 ATMs per 100,000 adults in urban areas compared to six in rural areas in 2016.

The main supply-side barriers are the high cost of providing financial services in rural areas and the inadequate basic physical infrastructure, such as transportation, in rural areas. The gap between rural and urban areas is largely addressed by credit organizations, which have a higher presence in rural areas than banks. The number of credit organization branches accounts for 25% of financial service providers' branches (banks and credit organizations only), having only around 8% in terms of assets. On the demand side, poverty and the low level of financial literacy are the main barriers. The low level of trust in the formal financial institutions, particularly in rural areas, and the negative attitude towards saving are major impediments as well. According to the OECD INFE survey conducted in 2010, only 11% of respondents had a positive attitude towards long-term saving (Atkinson and Messy 2012).

Armenia has a comprehensive National Strategy for Financial Education, which encompasses multiple stakeholders including nongovernment organizations and includes specific quantitative targets. The Financial Capability Barometer survey was introduced in 2014 to support the national strategy and measure its effectiveness every five years synchronized with the NSFE time frame. The strategy also plans to enhance financial education in schools with the pilot, which has already started in September 2017. Multiple projects have been and are being implemented in the area of financial education; to this end, systematic evaluation and coordination of the projects is key.

Policies promoting financial inclusion in Armenia have been focused on building high-quality financial infrastructure. The credit bureau, Armenian Card payment system, financial mediator, deposit guarantee fund, compulsory third-party motor liability insurance, and the first venture capital firm are important parts of the infrastructure. Both financial infrastructure and consumer enhancement through financial education and consumer protection exploit the synergies between financial stability and financial inclusion.

The presence of trade-offs between financial inclusion and stability means that high-quality data are indispensable for policy makers. Data gaps, especially for the SME sector, are currently among the main barriers for policy makers. The new design of the CBA credit registry, which will have more granular information, is an important step. The design and systematic collection of financial inclusion data is needed to inform policy.

Innovative technologies should be used to address the physical infrastructure gaps in rural areas. The presence of postal services in all villages is likely to be an opportunity to seize. Importantly, postal services enjoy the trust of the rural population. Postal services can become an access point for households in rural areas.

Unlike credit, insurance services have been underutilized. Though the compulsory third-party motor liability insurance was a big leap forward, significant opportunities remain in health and agriculture insurance. Currently, a large share of the population doesn't have access to health insurance; individuals access health insurance mainly through employers. Mandatory health insurance is a clear opportunity to provide access to health insurance as it will eliminate adverse selection and increase the quality of health services due to increased competition. High-quality e-health infrastructure is necessary to support health insurance and decrease the severity of asymmetric information.

To further increase financial inclusion the following recommendations are proposed:

(i)   Address the data gaps through the design and systematic collection of financial inclusion surveys. Build data infrastructure for easy access to SME financial inclusion data;

(ii) Create a national strategy for financial inclusion with quantitative targets or clarify whether it is envisioned to be a part of the National Strategy for Financial Education;

(iii) Use innovative technologies to address physical infrastructure gaps;

(iv) Exploit the presence and the high level of trust of postal services in rural areas by making postal services convenient access points;

(v)   Consider the largely untapped insurance potential in the insurance market;

(vi) Implement health insurance programs, such as mandatory health insurance, along with high-quality e-health infrastructure, which will allow information asymmetry to be reduced in the health insurance market and will provide a boost for the insurance sector;

(vii) Explore cost-efficient opportunities for agriculture insurance, which can provide more benefits from financial inclusion compared to credit, especially for small farmers;

(viii) Systematically evaluate and document the effectiveness of the large number of financial education initiatives;

(ix) Design targeted interventions for financial education for the most vulnerable groups; survey data show that the rural population and the unemployed perform worst in terms of financial literacy.

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