



# **Banking the poor through mobile telephony**

Understanding the challenges for  
expansion of mobile-based financial  
services in El Salvador

---

**Francisco Molina**

**Independent consultant**

July, 2013



*Diálogo Regional sobre Sociedad de la Información*



This work was carried out with the aid of a grant from the International Development Research Centre and the Canadian International Development Agency, Ottawa, Canada.

**Franciso Molina**

Banking through mobile telephony: understanding the challenges for expansion of mobile-based financial services in El Salvador. Lima: Diálogo regional sobre Sociedad de la Información, 2013. 44 pp.



This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivs 3.0 Unported License: <http://creativecommons.org/licenses/by-nc-nd/3.0/legalcode>

## ***Table of Contents***

Table of Contents.....	ii
List of figures.....	iv
List of tables .....	v
Summary .....	vi
Introduction .....	1
1 Assessment of the mobile telephony sector.....	2
1.1 General and investment indicators.....	3
1.2 Principal stakeholders.....	8
1.3 Regulatory environment .....	8
1.3.1 Entry into the market .....	8
1.3.2 Access to scarce resources .....	9
1.3.3 Interconnection and tariff regulation.....	11
1.3.4 Regulation of anti-competitive practices.....	12
1.3.5 Universal Service Obligation (USO) .....	13
1.4 Significant events.....	13
2 Assessment of the financial sector.....	15
2.1 General and investment indicators.....	15
2.2 Key stakeholders .....	18
2.3 MFS ecosystem.....	18
2.3.1 Institutional environment .....	19

2.3.2	Market environment.....	21
2.3.3	End user environment.....	22
2.4	Important events.....	23
2.5	Possibilities for developing financial services through conditional cash transfers.....	23
3	Methodology.....	26
4	Results.....	30
	Conclusions.....	34
	Recommendations.....	36
	Bibliography.....	37
	Appendix 1 – Questionnaire: Mobile financial services.....	40
	Appendix 2 – Interview guide.....	42
	Appendix 3 – Additional comments from stakeholders interviewed.....	44

## ***List of figures***

Figure 1: Mobile telephony: teledensity .....	3
Figure 2: Penetration of mobile telephony services (thousands) .....	4
Figure 3: National mobile geographic coverage, by operator (2012, %)	5
Figure 4: Evaluation scale .....	27
Figure 5: Results of evaluation of institutional environment .....	31
Figure 6: Results of evaluation of market environment .....	31
Figure 7: Results of evaluation of end-user environment.....	32

## ***List of tables***

Table 1: Number of households with at least one mobile telephone .....	6
Table 2: Mobile penetration in Latin America and the Caribbean .....	6
Table 3: Telecommunications investment and profits (in millions of dollars).....	7
Table 4: Share, by number of lines in service (%).....	9
Table 5: Bands and frequencies allocated for mobile telephony .....	10
Table 6: Technology used, by operator .....	11
Table 7: Maximum tariffs and interconnection charges, fixed and mobile telephony (US dollar, per minute) *.....	12
Table 8: Financial system: assets (millions of dollars) .....	15
Table 9: Percentage share of total assets, by bank, 2011.....	16
Table 10: Financial indicators for selected banks (December 2011, %)......	17
Table 11: Indicators of financial inclusion, 2011 .....	18
Table 12: Investment in and beneficiaries of the Solidarity Communities program (millions of dollars and number of beneficiaries).....	25
Table 13: Dimensions of MFS ecosystem to be evaluated.....	26
Table 14: Definition of categories.....	27
Table 15: Number of experts per category .....	28
Table 16: Number of responses per category .....	28
Table 17: Weighting, by category.....	28

## ***Summary***

The purpose of this report is to help understand the challenges for expansion of mobile financial services (MFS) in El Salvador and contribute to knowledge about the development of those services and the need for regulation. It also presents qualitative and quantitative information about the financial and communications sectors, the degree of financial inclusion, and the density and penetration of mobile telephony. It summarizes available information about the proposal for regulation of MFS and concludes with the results of an opinion poll about the MFS institutional environment, market environment and end-user environment.

In El Salvador, commercial banks are mainly transnationals, and there is considerable competition, especially in the credit card and Internet banking sector, as well as great concentration, but no bank provides MFS.

According to the interviewees, competition is greater in the telecommunications sector. Users have access to various service plans and promotions of voice and message services. Operators offer “packaged” alternatives that substantially reduce the price of services in comparison to individualized options.

All interviewees agreed that support infrastructure for non-bank correspondents is not well developed. Outside major cities, there is little ATM or POS terminal penetration. Unlike microfinance institutions, banks have no corporate strategies for increasing inclusion in the financial system.

MFS regulations are lacking in El Salvador. Although there has been considerable progress in developing regulations, they are still in process. The Office of the Superintendent of the Financial System (*Superintendencia del Sistema Financiero*, SSF) and the Central Reserve Bank (*Banco Central de Reserva*, BCR) will be responsible for supervising MFS. There are no plans for regulating the telecommunications sector with regard to these services, and the telecommunications regulatory agency will have no oversight role. Regulations being developed for MFS are more in line with a commercial banking model.

The only institution that provides MFS is Tigo Money, a subsidiary of a mobile telephony company. MFS are not used for microcredit, paying wages or making cash

available for payment for goods and services or deposits. In short, in El Salvador, only funds transfers are carried out via SMS messaging. For that reason, some stakeholders maintain that, strictly speaking, MFS do not exist in El Salvador.

It is crucial to organize events that bring together banks, mobile telephony operators, non-bank financial intermediaries and providers of payment services to stimulate discussion of the future of mobile commerce and mobile money and the advantages of possible strategic partnerships for reaching the unbanked. It is also important to reach broad sectors of the population with information about the advantages of MFS and to offer MFS with a broader reach than is currently available.

Urban and Rural Solidarity Communities (*Comunidades Solidarias Urbanas y Rurales*) are two important cash transfer programs in El Salvador. The programs provide vouchers to poor families in exchange for their keeping their children in school and guaranteeing adequate health care. The vouchers are currently paid in cash. Stakeholders interviewed stated that other, more efficient alternatives are being analyzed, including the use of an electronic card or MFS.

In the opinion poll about the MFS environment, the respondents' perception is that the institutional environment is very ineffective, mainly because of the absence of regulations for development of the business environment. The aspects of the market environment analyzed scored higher than 3, close to the efficacy boundary. The results also indicate a perception that there is little government leadership in creating conditions to encourage development of MFS. Regarding the end-user environment, respondents indicated that support infrastructure for non-bank correspondents (ATMs), agent network development and efforts by banks to include new users are below the efficacy boundary.

## ***Introduction***

The widespread penetration of mobile telephony in El Salvador, including in rural areas; the concentration of bank branches, ATMs and POS terminals in urban areas; and the experience of other countries, where mobile financial services (MFS) have helped include low-income users in the financial system are starting points for discussion of MFS' contribution to expanding access to financial services for marginalized or excluded populations.

The purpose of this paper is to evaluate the conditions of the MFS ecosystem in El Salvador with an eye toward its expansion, identifying progress and bottlenecks. The research methodology is based mainly on identification and analysis of the qualitative perceptions of relevant stakeholders, as proposed by *LIRNEasia* ([Samarajiva et al., 2005](#)). The methodology proposes analysis of three areas for evaluating the MFS regulatory environment: (1) the institutional environment, (2) the market environment and (3) the end-user environment. In these areas, various dimensions that are key to explaining the MFS environment are weighted.

To determine perceptions, interviews and email surveys were carried out with experts in three categories suggested by the methodology: (1) stakeholders directly affected by regulation of the telecommunications sector, (2) stakeholders who analyze the sector from a broader perspective (such as consultants and lawyers), and (3) stakeholders interested in improving the sector to help the public (that is, multilateral and bilateral bodies, regulators, academics). Relevant documents and quantitative information about the telecommunications and financial sectors and about conditional transfers were also obtained.

This paper was prepared as part of a joint project in several Latin American countries, coordinated by the Institute of Peruvian Studies (IEP) and the Regional Dialogue on the Information Society (DIRSI). The report is organized in six sections. The first presents aspects important for mobile telephony, while the second does the same for the financial sector. The third section explains how the methodology proposed by [LIRNEasia \(2008\)](#) was adapted. The fourth details the results of the surveys, and the fifth and sixth sections summarize the study's conclusions and recommendations. The appendices describe the tools used to gather information.

## ***1 Assessment of the mobile telephony sector***

In the late 1980s and early 1990s, countries in the region, including El Salvador, began an economic reform process inspired by the Decalogue of the Washington Consensus summarized by [Williamson \(1990\)](#), which was expected to lead to robust growth, facilitate integration of the world's economies, and catalyze investment and the creation of higher-paying jobs. The main emphasis of those reforms was on recovering macroeconomic stability and growth, eliminating distortions caused by state intervention, especially for investment and savings, and opening the economy. This process began in El Salvador in 1989, during the administration of President Cristiani.

As the country moved ahead with reforms, telecommunications became a serious bottleneck that limited the state's ability to attract investment and promote the development of export enterprises. Businesses, meanwhile, indicated that the cost of international calls was high because of a cross subsidy from international tariffs to local tariffs.

That was the main reason why the government of El Salvador decided to privatize telecommunications. As part of the privatization process in 1997, the state-run National Telecommunications Administration (*Administración Nacional de Telecomunicaciones*, ANTEL) was split in two: CTE, S. A. de C. V. (Compañía de Telecomunicaciones de El Salvador S. A. de C. V., which includes infrastructure and the fixed line) and Intel S. A. de C. V. (the cellular company). At the same time, organization of the Office of the Superintendent of Telecommunications began and the economic Cabinet approved the plan for sale of the new companies.

A year later, 51 percent of both companies was sold to foreign investors, marking the entry of foreign direct investment in the sector. France Telecom paid US\$275 million to become the majority shareholder of CTE, while Telefónica (Spain) paid US\$41 million for Intel. In 2003, France Telecom sold its share in CTE to América Móvil (Mexico) for US\$413 million. The same year, América Móvil bought the shares still held by the government for US\$295 million, giving it 94.4 percent ownership.

To sell ANTEL, the government hired Morgan Stanley-Citibank as the investment bank and approved a series of norms designed to give the process of privatizing telecommunications legal stability ([Argumedo, 2007](#)); these were:

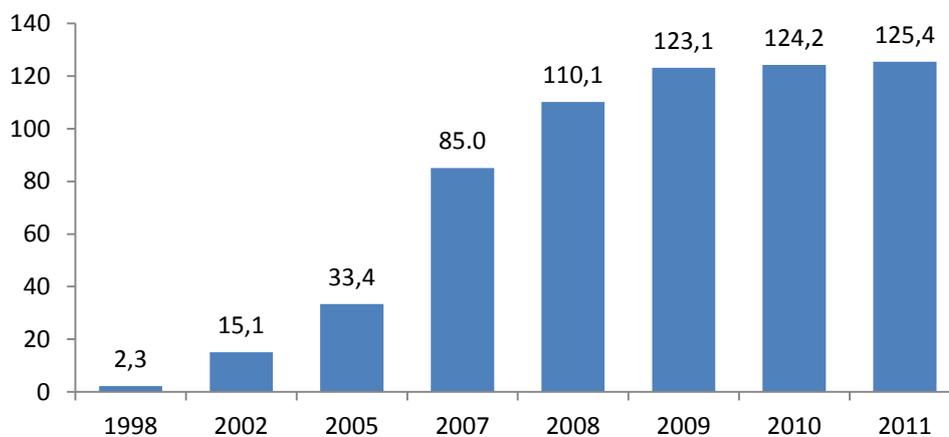
- a) Regulatory agency. The law creating the General Superintendent of Electricity and Telecommunications (SIGET) was approved by Legislative Decree 808 on 12 September 1996.
- b) Regulatory framework. The Telecommunications Law was approved by Legislative Decree 807 on 12 September 1996. Enabling legislation for the Telecommunications Law was approved in 1998.
- c) Complementary regulatory framework. The Law of the Fund for National Investment in Electricity and Telephony (FINET) was approved in 1998. The purpose of the fund was to use some privatization revenues to increase rural coverage and support the country's development. The Consumer Protection Law was approved in 1992, and the Competition Law was approved in 2004 and took effect in January 2006.

### ***1.1 General and investment indicators***

Mobile telephony services include mainly incoming and outgoing voice calls, voice mailbox, data transmission (SMS and MMS messages) and access to Internet navigation.

Telephone density is the total number of lines per 100 inhabitants. In 1998, when there was only one mobile telephony provider and mobile telephone costs and tariffs were extremely high, there were 2.3 lines for every 100 inhabitants of El Salvador. Telephone density reached 110.1 in 2008 and increased by approximately 12 percent annually between 2007 and 2011.

**Figure 1: Mobile telephony: teledensity**



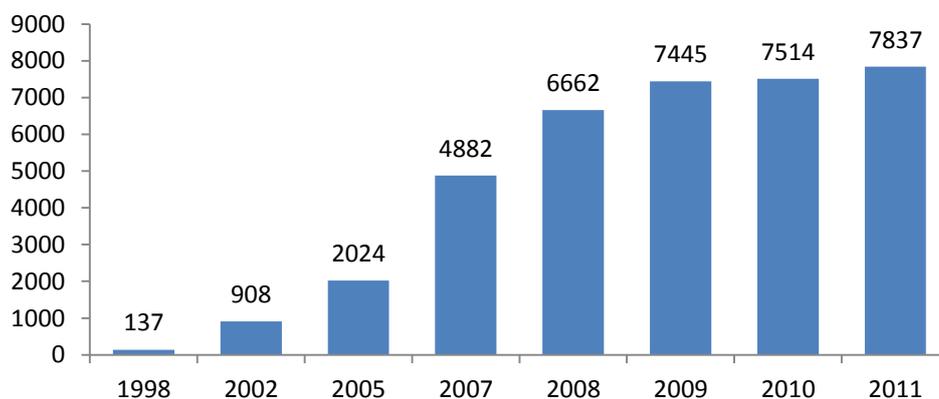
**Source: SIGET / Compiled by author**

Penetration of mobile telephony services is the total number of mobile lines in service. El Salvador has seen strong and dynamic growth in the past decade, with an increase from approximately 900,000 telephones in 2002 to 7.8 million in 2011. That growth has come in two phases: in the first (2002-2008), it was extremely robust, more than 700 percent, while in the second (2009-2011), it decelerated notably, to approximately 5 percent.

The increase in mobile telephony penetration in El Salvador has various causes, mainly the introduction of prepaid mobile services and the availability of low-cost telephones (less than US\$15); operator strategies based on innovative tariffs such as the reduction of tariffs during the month, by offering free minutes for calls, and double and triple balance promotions; and introduction of “caller pays” and charging by second. Those strategies have been promoted by all mobile telephony operators, which has encouraged price competition.

In El Salvador, as in the entire Latin American market, most users prefer the prepaid system. Its popularity is due to several factors, mainly the low cost, the option of using the service only when one is able to pay, without incurring a fixed cost, and the absence of requirements such as creditworthiness, which are unavoidable in post-paid systems. According to the report, *Latin America Mobile Observatory 2011* ([GSM Association 2011](#)), 82 percent of connections in the region are prepaid accounts. In El Salvador, that figure is approximately 90 percent.

**Figure 2: Penetration of mobile telephony services (thousands)**

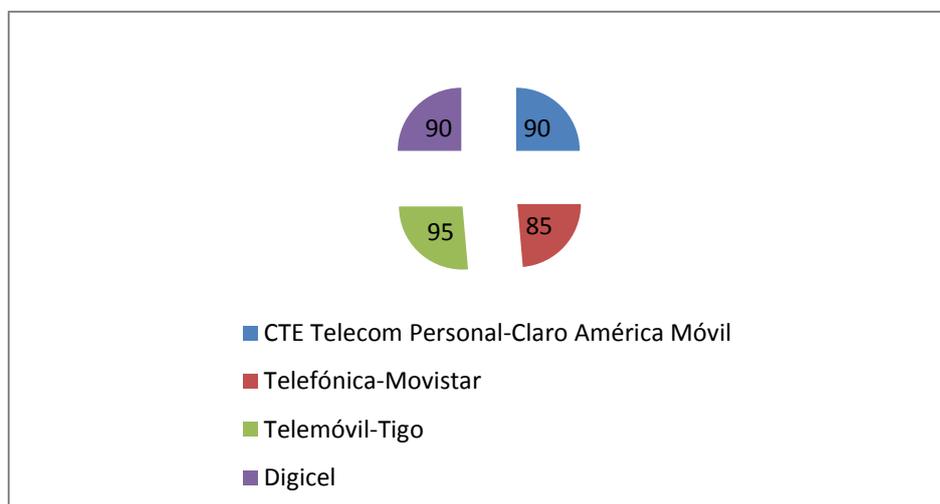


**Source: SIGET / Compiled by author**

In telecommunications, *coverage* refers to the geographic area in which a service is available. The four mobile telephone operators claim to provide their services

nationwide; nevertheless, there are areas, generally remote and with low population density, in which there is no signal or communications are not very good. According to SIGET, Telemóvil has the greatest geographic coverage, with 95 percent of the country, and the lowest is Telefónica, with 85 percent of the country.

**Figure 3: National mobile geographic coverage, by operator (2012, %)**



**Source: SIGET / Compiled by author**

The number of fixed telephone lines has nearly tripled in the past decade. The total number rose to about 1.1 million by 2011, which translates into 16.6 lines for every 100 inhabitants. As noted above, more impressive still is the growth of mobile telephony: in 2011, the number of mobile telephone subscribers was 7.5 times that of the number of fixed line subscribers.

The penetration of fixed lines is greater in large cities and in the San Salvador metropolitan area. Access to fixed telephony services tends to be limited, especially in rural areas. Rural fixed line infrastructure generally is basic or non-existent, partly for geographic reasons. Penetration ranges from approximately 38 percent in urban areas, approximately one in three households, to 9.9 percent in rural areas, one in 10 households ([Encuestas de Hogares de Propósitos Múltiples, 2011](#)).

Despite a mobile telephony penetration rate exceeding 100 percent, according to the Multipurpose Household Surveys (*Encuestas de Hogares de Propósitos Múltiples*, EHPM) conducted by the General Office of Statistics and Censuses (*Dirección General de Estadísticas y Censos*, DIGESTYC), in 2010, 13 percent of households in the country lacked access to mobile services, and while 89 percent of urban households had them, only 82.3 percent of rural households had mobile telephony.

Meanwhile, although about nine out of 10 urban households and four out of five rural households have access to mobile telephones, the growth rate for penetration in the medium term is likely to remain in the single digits.

**Table 1: Number of households with at least one mobile telephone**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Total</b>	4.7	5.5	6.4	7.4	24.4	34.7	45.4	65.0	78.5	80.6	86.7
<b>Urban</b>	3.8	4.1	4.7	6.2	28.4	39.2	49.3	67.7	81.0	83.6	89.0
<b>Rural</b>	6.1	7.7	9.1	9.3	17.7	26.9	39.0	59.5	73.1	74.8	82.3

**Source: SIGET / Compiled by author**

According to [GSM Association \(2011\)](#), in 2008 and 2010, of 20 countries considered, El Salvador had the fourth-highest mobile penetration score.

**Table 2: Mobile penetration in Latin America and the Caribbean**

Country	Penetration score	
	2008	2010
<b>Panama</b>	100.00	100.00
<b>Uruguay</b>	97.81	96.96
<b>Argentina</b>	97.01	94.18
<b>El Salvador</b>	91.12	92.83
<b>Jamaica</b>	88.95	91.13
<b>Chile</b>	88.80	89.64
<b>Brazil</b>	72.74	70.11
<b>Ecuador</b>	71.98	68.91
<b>Venezuela</b>	66.70	67.02
<b>Colombia</b>	54.40	57.94
<b>Dominican Republic</b>	53.26	56.99
<b>Paraguay</b>	52.71	56.09
<b>Guatemala</b>	52.49	53.18
<b>Honduras</b>	50.57	53.15
<b>Mexico</b>	42.32	43.70

<b>Peru</b>	37.01	43.18
<b>Bolivia</b>	34.53	34.72
<b>Costa Rica</b>	12.93	30.88
<b>Nicaragua</b>	4.02	18.30
<b>Haiti</b>	0.00	0.00

Source: [GSM Association \(2011\)](#)/ Compiled by author

It is also important to analyze the investment per se. The figures presented in this report are expressed in dollars. The Monetary Integration Law established the U.S. dollar as the legal currency in El Salvador as of January 2001, at a fixed rate of 8.75 colones to the dollar. As a result, El Salvador renounced the intervention of monetary, exchange and interest rate policies.

According to the study by [Argumedo \(2007\)](#) on competency and regulation in telecommunications, telecommunications companies invested a total of US\$2,169,300,000 between 1998 and 2004, which represents an average annual investment of US\$310 million. When that study was carried out, public information was not available about the amount of investment in the purchase or construction of buildings, purchase of equipment, transfer of technology, etc. Nor was information available about the profits of telecommunications companies.

As the following table shows, information about profits since 2007 is available, as is a breakdown of investment since 2006. Investment slowed in 2005 and 2006 and increased again beginning in 2007.

**Table 3: Telecommunications investment and profits (in millions of dollars)**

Line item	Year				
	2005	2006	2007	2008	2011
<b>Investment in assets for transmission and commutation</b>	29.3	77.9	283.4	197.9	102.8
<b>Investment in land, buildings, etc.</b>	66.0	60.0	53.8	0.9	51.7
<b>Profit</b>	ND	ND	82.4	104.5	79.9

Source: [SIGET, Manual de indicadores de telecomunicaciones, various years](#) /  
Compiled by author

## **1.2 Principal stakeholders**

Article 1 of the Telecommunications Law «establishes that the Office of the General Superintendent of Electricity and Telecommunications (*Superintendencia General de Electricidad y Telecomunicaciones*, SIGET) will be responsible for implementing and enforcing the norms and regulations established in this law and its enabling legislation.»

SIGET is an autonomous public, non-profit service institution. In the area of telecommunications, its main functions include implementing treaties, laws and regulations; approving tariffs; dictating technical standards and norms; settling conflicts between operators (interconnection); and informing the appropriate authorities about anti-competitive practices.

## **1.3 Regulatory environment**

The regulatory framework for telecommunications in El Salvador was established by the Telecommunications Law and its enabling regulations. Since it took effect in 1997, there have been 15 reforms to the law, the most recent in November 2010.

Article 2 of the Telecommunications Law establishes the following:

The provisions of this law will be implemented for the following purposes:

- a. Promotion of access to telecommunications for all sectors of the population;
- b. Protection of the rights of users, operators, telecommunications service providers and the general public;
- c. Development of a telecommunications market that is competitive at every level; and
- d. Rational and efficient use of the electromagnetic spectrum.

### **1.3.1 Entry into the market**

Telemóvil began commercial operations in January 1993 and was the first mobile telephone company in El Salvador. The sales target at the end of the first year of operations was 1,200 lines. That target was not only met, but exceeded: it ended the year with 1,800 active users. Initially, the cellular network covered 20 percent of the country. In 2004, Telemóvil was acquired by Tigo. Today, with GSM 850 MHz technology, there is excellent national GSM coverage in 95 percent of the country. In 2011, Telemóvil-Tigo was the company with the largest number of active lines.

Telefónica Móviles El Salvador was the second telecommunications company in the country (1998), and it ranked third in mobile lines in December 2011.

CTE-Telecom-Personal began offering mobile telephony services in 1999 and was the third company in the market, as well as the company with the largest fixed-telephony coverage. When it was acquired by América Móvil, its mobile telephony programs became more aggressive. It expanded its market share and reached first place in lines in 2005. In 2011, it ranked second in active mobile lines.

DIGICEL of El Salvador was the fourth company to enter the market, in 2002, and its capital originally came from investors from the United States and El Salvador. In 2011, American Móvil purchased DIGICEL, but the merger was denied.

In 2005, Intelfon, a regional company with capital from El Salvador, Guatemala and Panama, became the first to introduce Motorola’s iDEN technology, which integrates digital radio communication with standard cellular communication. [GSM Association \(2011\)](#) does not include Intelfon among the mobile operators, because its clients are corporate and its mobile market share is minimal.

There are also 11 companies that provide specialized services for international telecommunications (*carriers*). The international calls handled by those companies amount to more than US\$100 million annually in sales volume ([United Nations Conference on Trade and Development 2010](#)).

**Table 4: Share, by number of lines in service (%)**

Operator	Year			
	1993	2002	2005	2010
<b>CTE Telecom Personal-Claro América Móvil</b>	100.0	45.0	29.0	42.5
<b>Telefónica- Movistar</b>	--	23.0	30.0	16.2
<b>Telemóvil-Tigo</b>	--	29.0	30.0	16.2
<b>DIGICEL</b>	--	3.0	9.0	14.6

**Source: SIGET/ Compiled by author**

### **1.3.2 Access to scarce resources**

The Telecommunications Law establishes that SIGET will approve telephone service concessions for a period of 30 years, with no geographic limits. It also indicates that

concessions can be renewed by filing a new request with SIGET. The law also stipulates the procedure for granting concessions and addresses concessions, authorizations and licenses on which the service factors to be charged the companies are based. The law also includes a table of frequency bands and the services that can be provided on the various frequencies.

As the following table shows, most of the electromagnetic spectrum that offers ideal conditions for mobile telephony is granted in concession to mobile telephony operators and other providers of telecommunications services. The frequencies allocated for mobile telephony (bands from 800 to 900 MHz) and digital mobile telephony (bands from 1800 to 1900 MHz) have been concessioned, with the exception of 20 MHz of the band from 1800 to 1900 MHz.

**Table 5: Bands and frequencies allocated for mobile telephony**

<b>Identified band</b>	<b>Bandwidth (MHz)</b>	<b>Total spectrum allocated for mobile telephony (MHz)</b>	<b>Concessioned spectrum (MHz)</b>
<b>806-960</b>	154.0	103.8	103.8
<b>1710-1885</b>	175.0	10.0	0.0
<b>1885-2025</b>	140.0	60.0	50.0
<b>2110-2200</b>	90.0	40.0	14.6
<b>Total</b>	559.0	213.8	168.4

**Source: SIGET/ Compiled by author**

According to stakeholders interviewed, new mobile telephony companies that want to enter the Salvadoran market will have to use higher frequencies, with less range and penetration, and will therefore have to invest more in deployment of network sites. Under ideal topographic conditions, the capital investment necessary for mobile telephony services in the 700 MHz band is 70 percent less than in the 2100 MHz band. That is mainly because operators using higher frequencies must build more base stations to obtain the same coverage ([GSM Association 2011](#)).

Total ICT sector infrastructure in El Salvador has improved notably in recent years. All mobile telephony has shifted completely to GSM technology; besides “normal” mobile-to-mobile or mobile-to-fixed communications, that technology allows connection to a computer via telephony, sending and receiving email and text messages, and Internet navigation. This is the technology used by most mobile phone

users. Three operators also use 3G, a slightly more advanced technology that allows higher-speed Internet access.

**Table 6: Technology used, by operator**

<b>Operator</b>	<b>Frequencies &amp; technology</b>
<b>CTE Telecom Personal-Claro América Móvil</b>	3G/GSM:1900 MHz
<b>Telefónica- Movistar</b>	GSM:850 MHz, 3G:1900 MHz
<b>Telemóvil-Tigo</b>	3G/GSM:850 MHz
<b>DIGICEL</b>	GSM:900 MHz

**Source: SIGET/ Compiled by author**

### ***1.3.3 Interconnection and tariff regulation***

The International Telecommunication Union defines interconnection as «the set of legal rules, technical and operational arrangements between network operators that enable customers connected to one network to communicate with customers of another network.» El Salvador’s Telecommunications Law states that interconnection is «the service that enables operators and users of different networks to route telecommunications traffic from one network to another so all end users are able to communicate among themselves or so the end users connected to an access service network are able to obtain services provided by an intermediate service operator.»

The Telecommunications Law regulates public telephony tariffs. Under the law, SIGET sets the highest tariff that an operator can charge for fixed and mobile telephony and interconnection charges. SIGET bases those estimates on costs reported by local operators and international price comparisons. Charges and tariffs are reviewed annually.

The following table shows the maximum tariffs and fixed interconnection charges for 2010, 2011 and 2012.

**Table 7: Maximum tariffs and interconnection charges, fixed and mobile telephony (US dollar, per minute) \***

Type of network	Origin & destination of call	Year		
		2010	2011	2012
<b>Mobile to mobile</b>	On-net	ND	0.19766	0.17339
<b>Mobile to mobile</b>	Off-net	ND	0.22952	0.20491
<b>Mobile to fixed</b>	On-net	ND	0.16725	0.14528
<b>Mobile to fixed</b>	Off-net	ND	0.16725	0.14536
<b>Fixed to mobile</b>	On-net	0.21	0.2	0.1727
<b>Fixed to mobile</b>	Off-net	0.21	0.2	0.17874
<b>Mobile to fixed</b>	Charge for termination of call	ND	0.0134	0.1299
<b>Fixed to mobile</b>	Charge for termination of call	0.08	0.07	0.06167

\*Does not include 13-percent value-added tax.

**Source: SIGET/ Compiled by author**

Competition in mobile telephony has also led to a downward trend in the average per-minute price for calls. When TELEMÓVIL enjoyed a monopoly, the cost of a call from a mobile telephone was US\$0.40 per minutes. It is now lower than the maximum price established by SIGET, and it could go as low as US\$0.05 per minute. Nevertheless, a wide variety of subscription plans is available. The cost of prepaid mobile-to-mobile telephony could be considered the most representative for the Salvadoran market, because it is the area with the greatest demand: 89.5 percent of mobile subscriptions are prepaid, and mobile-to-mobile service totals 76 percent of mobile telecommunication traffic. The cost for this service could reach US\$0.13 per minute (SIGET 2012).

#### **1.3.4 Regulation of anti-competitive practices**

Debate over approval of a Competition Law in El Salvador began in 1989 (Molina 2007) and ended with passage of the law in 2004.

The Salvadoran Foundation for Economic and Social Development (Fundación Salvadoreña para el Desarrollo Económico y Social) (2004: 1) said: «Protection of free competition has been a constitutional obligation of the State since 1950, but legislation has not been developed to effectively enforce it; the competition law must

therefore be considered a step forward in the consolidation of the constitutional regime.»

The purpose of the law is «to promote, protect and guarantee competition through the prevention and elimination of anticompetitive practices that, manifested in any way, limit or restrict competition or impede access to the market for any economic agent, thus increasing economic efficiency and consumer welfare.»

The law includes a general prohibition on acts that limit or restrict free competition. The law considers most behaviors that, according to the experience of other countries, are considered the most common anti-competitive practices, such as agreements between competitors, anti-competitive practices between non-competitors, abuse of a dominant market position, and concentrations that tend to limit competition.

### ***1.3.5 Universal Service Obligation (USO)***

The FINET Law was approved in 1998. The purpose was to use some of the revenues from privatization to increase rural coverage and facilitate access to electricity and telephony for the lowest-income population. The law was later modified, and resources were not allocated for telecommunications. They were provided to the electricity sector, but the effort focused on subsidizing residential consumption, especially that below 200 kilowatts a month, and little margin was left for investment in electricity infrastructure.

## ***1.4 Significant events***

On two occasions, Telecom Claro, a subsidiary of American Móvil, presented an economic concentration petition to the Office of the Superintendent of Competition to acquire DIGICEL. The petition was denied both times, most recently on 25 September 2012. The Office of the Superintendent of Competition issued a statement saying that «the decision was made to deny the economic concentration petition, given that the proposed operation has a high probability of having an adverse impact on the dynamic of competition and the welfare of consumers in the fixed and mobile telephony markets.»<sup>1</sup> The superintendent's office decided that the market in which the two companies operate is highly concentrated and that, in addition to legal, economic

---

<sup>1</sup> See <<http://www.sc.gob.sv>>.

structural and technical barriers, the acquisition would create an even greater concentration.

In fact, if the DIGICEL shares were acquired by CTE-Telecom, the latter would control more than half the electromagnetic spectrum concessioned to the telephony market, «which would increase the likelihood of exercising market power to the detriment of consumer welfare.»

## **2 Assessment of the financial sector**

### **2.1 General and investment indicators**

El Salvador's financial system consists of institutions in the banking market, the insurance market, the stock market, the pension system, official government lending institutions, and regulatory and supervisory authorities. Private companies are regulated by laws applicable to groups of businesses that are dedicated to a certain activity; for example, banking activity is regulated by the Banks Law, and other entities involved in financial intermediation are regulated by the Cooperative Banks and Savings and Loans Law (2008). When this activity is carried out by state institutions, the applicable law is the one by which each institution was created.

Cooperative banks (BC, for their Spanish initials) and savings and loan societies (SAC, for their Spanish initials) are social or commercial organizations that, although not authorized to operate as banks, are mainly devoted to meeting the financial service needs of microentrepreneurs; small businesses; public, municipal and private employees; and microfinance institutions (MFIs), providing "microcredit," generally small loans to non-salaried workers. These activities are carried out by various types of institutions, including cooperatives and NGOs, which may or may not be regulated by financial authorities.

As of June 2012, financial system assets totaled US\$21,132,900,000, equivalent to 91.7 percent of GDP. In the following table, assets of cooperative banks and savings and loan associations include only those regulated by the SSF, approximately 6 percent of the total.

**Table 8: Financial system: assets (millions of dollars)**

<b>Institution</b>	<b>Year</b>			
	2009	2010	2011	Jun-2012
<b>Insurance</b>	566.9	625.3	628.5	645.9
<b>Brokerages</b>	21.2	18.5	18.0	18.0
<b>Pension funds</b>	5,157.4	5,724.6	6,219.8	6,531.6
<b>Cooperative banks &amp; savings &amp; loan associations</b>	587.6	661.7	741.2	774.7
<b>Banks</b>	13,049.0	12,952.2	12,840.0	13,162.7

<b>Total</b>	19,382.1	19,982.3	20,447.5	21,132.9
<b>Total/GDP (%)</b>	93.8	93.3	88.7	91.7

Source: [BCR 2012](#)/ Compiled by author

El Salvador has 12 banks, including the state-owned Banco de Fomento Agropecuario and the Banco Hipotecario, which is mainly state-owned. The other 10 are private; foreign investors are the majority shareholders. The bank with the most assets in the country is the Agrícola, with approximately 28 percent of total assets. The three largest banks operate with slightly more than 59 percent of the system's total assets, while Salvadoran banks operate with approximately 6 percent of the system's portfolio.

In El Salvador, transnational banking predominates, and decisions about the investment portfolio, credit policies, technology, etc., are highly influenced by their respective home offices. Foreign ownership of local banks somewhat increases El Salvador's exposure to global financial crises. The current crisis seriously affected global financial institutions operating in El Salvador, which could have led them to restrict their lending practices in the country.

**Table 9: Percentage share of total assets, by bank, 2011**

<b>Institution</b>	<b>Share</b>
<b>Agrícola</b>	28.2
<b>Citibank</b>	16.4
<b>Scotiabank</b>	14.6
<b>HSBC</b>	14.0
<b>Banco de América Central</b>	9.7
<b>Salvadoran banks</b>	6.4
<b>Others</b>	10.7
<b>Total</b>	100.0

Source: [SSF](#)/ Compiled by author

As the following table shows, the financial system's reserve coverage (provisions/past-due loans), loan loss provisions as a percentage of past-due loans, stood at 107.8 percent in 2011. This shows that "Salvadoran" banks took a cautious

stance in addressing deterioration stemming from the lack of recovery of the portfolio with payment problems.

In December 2011, banking institutions maintained equity strength and attained a capital adequacy ratio (total capital/weighted assets) of 17.1 percent, a proportion very similar to that of 2010, which was 17.6 percent, more than 5 percentage points more than the minimum required (12 percent) by banking regulations.

**Table 10: Financial indicators for selected banks (December 2011, %)**

<b>Institution</b>	<b>Liquidity ratio</b>	<b>Capital ratio</b>	<b>Reserve coverage</b>	<b>Return on equity</b>	<b>Return on assets</b>
<b>Agrícola</b>	38.8	19.0	159.8	21.0	3.1
<b>Citibank</b>	39.9	19.0	79.3	6.2	0.9
<b>HSBC</b>	37.5	18.6	80.2	5.1	0.7
<b>Hipotecario</b>	28.2	13.1	145.5	9.1	0.8
<b>Promerica</b>	32.6	12.6	100.1	18.3	1.5
<b>Industrial</b>	68.9	43.0	ND	-0.3	-0.1
<b>Procredit</b>	29.0	12.8	122.5	0.6	0.01
<b>Total</b>	37.0	17.1	107.8	12.2	1.5

**Source: SSF/ Compiled by author**

Return on equity (ROE) in the banking system reached 12.2 percent, higher than the 7.3 percent registered the previous year. That was mainly due to the lower cost of financial intermediation in capturing resources because of lower interest rates paid to depositors and the lower cost of writing down assets.

Available information does not make it possible to clearly establish the degree of Salvadorans' inclusion in the financial system by geographic area and socio-economic level. National figures indicate that there are 21 banking agencies per square kilometer, equivalent to 11.4 per 100,000 inhabitants. Nevertheless, every municipality does not have banking agencies.

The data also do not make it possible to determine the percentage of the population that has savings accounts, since the same person or company could have three or more. Despite these limitations, however, if the total number of active savings accounts is divided by the total population, it is estimated that approximately 52 percent of the population has savings accounts. According to the [World Bank \(2012\)](#), however, 12.9

percent of the population age 15 or older has savings in the formal financial sector, 3.4 percentage points above the average for Latin America and the Caribbean.

**Table 11: Indicators of financial inclusion, 2011**

Indicator				
Access	Banking agencies		ATMs	
	Per 1,000 km <sup>2</sup>	Per 100,000 adults*	Per 1,000 km <sup>2</sup>	Per 100,000 adults*
	21.0	11.4	65.9	35.8
Use	People with savings accounts (% of total population)*		Total loans opened (% of adult population)*	
	52%		41%	

\*Adult population is people age 18 or older.

**Source: SSF/ Compiled by author**

## **2.2 Key stakeholders**

The new Law of Supervision and Regulation of the Financial System centralized oversight of the system in the Office of the Superintendent of the Financial System (*Superintendencia del Sistema Financiero*, SSF) and the Central Reserve Bank (*Banco Central de Reserva*, BCR). Article 1 states:

The Financial Supervision and Regulation System is made up of the Office of the Superintendent of the Financial System and the Central Reserve Bank of El Salvador. Supervision of members of the financial system and other supervisees under this law is the responsibility of the SSF; approval of the Prudent Macro Regulatory Framework necessary for appropriate implementation of this and other laws regulating members of the financial system and other supervisees is the responsibility of the BCR. <sup>2</sup>

## **2.3 MFS ecosystem**

El Salvador has no MFS regulation. Although significant progress has been made on a regulatory proposal, it is still under development. In some areas, therefore, the

---

<sup>2</sup> Available at <http://www.bcr.gov.sv/bcrsite/uploaded/content/category/1349578544.PDF>

information necessary for a detailed examination of specific aspects of regulation is still unavailable. For example, according to interviewees, regulations will have aspects related to inclusion and consumer protection; the details, however, are not yet publicly available. For that reason, comments will focus on the interviews with interested stakeholders with expertise in the issue and some specific aspects of the proposals.

### ***2.3.1 Institutional environment***

- Financial system regulation of MFS

The BCR and SSF signed a memorandum of understanding with the United Nations Development Program (UNDP) to design norms and regulations for the development of MFS. That effort has also been supported by the United States Agency for International Development (USAID).

To avoid the risk of interminable debate, the Legislative Assembly is considering the regulation of MFS by way of a technical norm approved by the BCR's Regulations Committee rather than by a legislative decree.

Some of the most important aspects of the regulatory proposal are related to the requirements for MSF administrators:

- a) Organize as corporations.
- b) Stipulate in their founding by-laws that their main activity will be «to manage or operate a mobile payment system, the goal of which is to carry out payment orders and funds transfers between accounts or electronic registers created by means of mobile telephones.»
- c) They must have information technology infrastructure that will support MFS and that infrastructure must meet reliability and integrity standards set by the BCR.

It is important to note the requirement that the administrator's main activity will be to provide MFS. This implies that if a telephone company wants to participate, it must create a subsidiary company whose main activity is related to those services.

According to international experience, there are mobile payment systems that rest on the banking sector, as well as systems in which mobile telephony operators offer this form of payment, as is the case in African countries. El Salvador is considering the coexistence of three administrator models, with the participation of commercial banks, savings and loan associations, cooperative banks, credit card companies and other

entities, as well as subsidiaries of mobile telephony companies. There are various administrator models:

- a) Mobile payment administrator that handles payments from clients with deposit accounts or credit/debit cards in a financial institution. In this model, the financial institutions become participants in the MFS system and the users can make transfers between accounts in the various participating financial institutions. This is a deferred net compensation and liquidation system that operates through the BCR for its financial institutions; the administrator and participants must have accounts in the BCR.
- b) Mobile payment system administrator that handles payments and cash balances backed by reserves. The manager creates a system in which there is a reserve fund in a bank to back the funds generated through electronic registers. These registers represent the electronic money that will enable users to make transfers and payments within the system. In this case, it is not necessary to have an account in the BCR, but there are service points where users can subscribe to the service, recharge their balances, etc.
- c) Mobile payment system administrator that, in partnership with financial institutions, manages payments and balances of prepaid cards issued by financial institutions. With this model, the financial institutions decide how they will back the funds that originate payments made with their prepaid cards. The prepaid card, which is not tied to any bank account, can be used to make payments in stores or at ATMs. In some cases, there is the possibility of associating a cellular telephone with a prepaid card.

- Telecommunications sector regulation of MFS

According to the interviewees, no telecommunications sector regulations on MFS are planned. Moreover, mobile telephony companies cannot participate directly in MFS, but can do so through subsidiaries, such as Tigo Money. The subsidiary can use administrator model “b” (mobile payment system administrator that handles payments and cash balances using a reserve fund).

- Telecommunications sector regulation for financial inclusion

Experts say MFS regulations will also aimed to promote social inclusion. For example, it can be difficult for microenterprises and small businesses, especially those

in rural areas or places far from bank branches, to repay loans. MFS will enable them to make and receive payments by cellular phone, which could save them time and transportation costs.

- Coordination and joint policies for providing MFS

The telecommunications regulatory agency (SIGET) is not expected to take part in the supervision of MFS. Supervision will be the responsibility of the SSF in conjunction with the BCR.

As an anti-money-laundering measure, limits are being considered on the amounts of operations: the maximum daily cumulative amount would range from US\$50 to US\$250, and the monthly cumulative amount from US\$450 and US\$1,000. El Salvador's MFS system therefore would be considered a «low-value» system, in which a large number of small individual amounts are processed, generally to transfer funds between individuals and/or small businesses.

- Consumer protection for MFS

Consumer protection will be an integral part of MFS regulations; for example, to guarantee participants' transactions, the financial entities will be required always to maintain the funds necessary to totally cover those transactions. Those funds must be dedicated only to payments and funds transfers, and when the administrator is not a financial entity, it will have to establish a reserve fund or other mechanism for that purpose.

### **2.3.2 Market environment**

- Competition in the financial sector

In El Salvador, the commercial banks are mainly transnationals; the largest banks are Colombian, US and Canadian. According to the interviewees, in all categories there is considerable competition among banks, especially in the credit card and mobile banking sectors. There is also substantial concentration (approximately 60 percent) of intermediation assets in the three largest banks. No bank provides MFS.

- Competition in the telecommunications sector

According to the interviewees, competition in all categories is greater in the telecommunications sector. Users have access to different alternatives for consumer

plans and promotions for voice service (such as triple balance on prepaid cards) and messaging service.

Operators also offer “packaged” options, which include mobile telephony, Internet, fixed telephony and cable television, so that the price of the “packaged” services is substantially lower than the individual services. One of the four telephony operators also provides MFS through a subsidiary.

- Innovation in the telecommunications market

According to one interviewee in Category 2 («stakeholders who analyze the sector from a broader perspective»), «in El Salvador, technological progress is high. The telecommunications sector is ready to support MFS, because on the consumer side, the market is mature. There is considerable deepening of telecommunications services.» Nevertheless, according to one of the Category 3 interviewees («stakeholders with interest in improving the sector to help the public»), it is necessary to increase the technology of security services, especially in banks.

- Government leadership in MFS

Not counting interviewees from regulatory agencies, the interviewees in the three categories said the government has placed little importance on MFS and they are generally unaware of efforts being made to develop regulations.

- Management of data/information about users/beneficiaries of social programs

Most interviewees in the three categories said there is a great deal of information about users of telephone services. Opinions were split about the beneficiaries of social programs. Some said there is sufficient information, while others said the information is biased and that some transfer programs have not fully identified the beneficiaries.

### **2.3.3 End user environment**

- Support infrastructure for non-bank correspondents (agents)

The interviewees stated that El Salvador has no special regulation for non-bank agents. The SSF, however, has issued a rule authorizing them to receive only payments related to credit-card operations, as well as loan payments, in businesses with which they have signed contracts to provide that service, as long as they comply with the Banking Law and the bank bears the risk of the operations.

- Development (agent network penetration)

All interviewees agreed that the support structure for non-bank correspondents is not well developed. Outside of large cities, there is little penetration of ATMs or POS terminals.

- Bank efforts to include/capture new users

According to the interviewees, banks lack corporate strategies for increasing inclusion in the financial sector. In contrast, microfinance institutions do make such efforts.

## ***2.4 Important events***

The most important and controversial issue in the financial sector recently has been debate over the proposed Anti-Usury Law. According to financial sector analysts and stakeholders interested in banking, the most controversial aspect is that the draft legislation sets a single rate for all loans, regardless of the amount, risk or intermediary institution. In that case, those most affected could be the customers of saving and loan cooperatives, lending banks and microfinance institutions. Depending on the ceiling set for interest rates, a significant number of credit operations could be rejected, because the risk and per-loan operating costs are high. This could make less credit available to small businesses and microenterprises or impose higher financing costs, which could force them to turn to the informal credit market.

## ***2.5 Possibilities for developing financial services through conditional cash transfers***

The institutions responsible for conditional cash transfer programs are the Social Investment Fund for Local Development (*Fondo de Inversión Social para el Desarrollo Local*, FISDL) and the Technical Secretariat of the Office of the President (*Secretaría Técnica de la Presidencia*, STP). These programs began in 2008 under the name *Red Solidaria* (“Solidarity Network”), and targeted poor, rural families. The current administration of President Mauricio Funes has expanded coverage in the rural area and has begun to include poor families in urban areas. Except in urban areas, the cash transfers are provided to poor families on the condition that they send their children to school and maintain appropriate health care. The name of the program has been changed *Comunidades Solidarias Urbanas y Rurales* (“Rural and Urban Solidarity Communities”).

Rural Solidarity Communities (*Comunidades Solidarias Rurales*, CSR) targets the 100 municipalities that have the highest rates of extreme poverty. The program's goal is to improve the families' living conditions in three major areas: improving the network of basic social services (nutrition, health and basic education); improving housing, water and basic sanitation, electrification and rural roads; and access to productive development and microcredit programs. Urban Solidarity Communities (*Comunidades Solidarias Urbanas*, CSU) is based on four intervention areas: human capital, basic services, productive development and territorial management.

Families receive the money every two months, and the amount varies depending on the type of voucher. With the Health Voucher, families that include children under age 5 or pregnant women receive US\$30 every two months; with the Health and Education Voucher, families that include children under age 5 or pregnant women and children between ages 5 and 18 who have not completed sixth grade receive US\$40 every two months; and with the Education Voucher, families with children between ages 5 and 18 who have not completed sixth grade receive US\$30 every two months.<sup>3</sup>

To benefit, families receiving vouchers must fulfill certain responsibilities: enroll beneficiaries under age 18 in school and support those already enrolled to ensure they attend and study, from pre-school through sixth grade; register the family for health programs, get prenatal and pediatric checkups and comply with the basic maternal and infant vaccination protocols; and attend family training sessions as indicated by the CSR program.

A Temporary Income Support Program (*Programa de Apoyo Temporal al Ingreso*, PATI) is currently being implemented as part of the government's Global Anti-Crisis Plan. The goal is to meet needs for income generation and employability for the most vulnerable urban population. PATI provides US\$100 a month for six months to each participant, on an individual basis. The participants must register and go through a selection process based on poverty and vulnerability criteria. This assistance is conditioned on the beneficiary's participation in community projects and job training courses.

Despite negative opinions from interviewees, the evidence presented in government reports ([Government of El Salvador 2012](#)) shows that the beneficiaries of these

---

<sup>3</sup> Source: <[www.fisd.l.gob.sv/temas/comunidades-solidarias/comunidades-solidarias-rurales.html](http://www.fisd.l.gob.sv/temas/comunidades-solidarias/comunidades-solidarias-rurales.html)>.

programs are fully identified. The following table shows that approximately US\$31 million was invested in the transfers in 2011, benefiting approximately 425,000 Salvadorans living in poverty, equivalent, according to the [EHPM \(2011\)](#), to 15.8 percent of the poor population.

The various vouchers are currently provided in cash, usually in the municipal offices of the district where the beneficiaries live. Interviewees familiar with the issue say that other, more efficient options are being considered for cash transfers, including the use of electronic cards or MFS.

**Table 12: Investment in and beneficiaries of the Solidarity Communities program (millions of dollars and number of beneficiaries)**

Indicator	Year				
	2008	2009	2010	2011	2012 (projected)
<b>Investment</b>	11.2	192	28.7	30.6	45.9
<b>Beneficiaries</b>	382,500	475,191	468,155	425,418	516,358

Source: [Government of El Salvador \(2012\)](#)

### 3 Methodology

The study methodology adapts the proposal developed by LIRNEasia for the telecommunications sector ([Samarajiva et al., 2005](#)). Unlike that methodology, this study analyzes the entire MFS ecosystem, not just the institutional or regulatory environment. The evaluation is based on three areas of the MFS ecosystem: (1) institutional environment, (2) market environment, and (3) end-user environment ([World Economic Forum 2011](#)). Table 13 shows the 14 dimensions on which the discussion will focus.

**Table 13: Dimensions of MFS ecosystem to be evaluated**

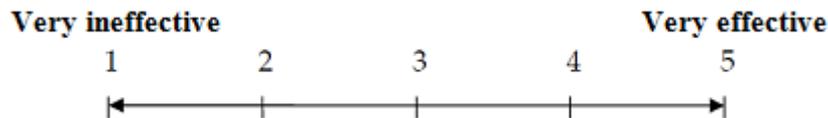
Environment	Dimension	Aspects covered
Institutional environment	Financial system regulation of MFS	Licensing: complexity of process and specifics for issuing electronic money
	Financial system regulations for financial inclusion	Incorporation of mandates for financial inclusion
	Telecommunications sector regulation of MFS	Universal service and coverage requirements, regulation of quality, know-your-customer rules
	Telecommunications system regulations for financial inclusion	Incorporation of mandates for financial inclusion
	Coordination and joint policies for offering MFS	Joint policies of financial and telecommunications regulators
	Consumer protection for MFS	Measures for protection of MFS customers
Market environment	Competition in financial sector	Market concentration, profitability indicators and quality-of-service indicators
	Competition in telecommunications sector	Market concentration, profitability indicators and quality-of-service indicators
	Innovation in telecommunications market	Degree of innovation
	Government leadership on MFS	Government's degree of interest and openness
	Management of data and information management about users/beneficiaries of social programs	Databases to understand behavior and needs
End-user environment	Support infrastructure for non-bank correspondents	Infrastructure deployment (ATM, POS)
	Agent network development (penetration)	Agent distribution networks (retail outlets, sellers of prepaid cards, etc.)

	Bank efforts to include/capture new users	Policies for capturing new users
--	---	----------------------------------

Source: [Word Economic Forum \(2011\)](#)/ compiled by IEP

The following figure shows the range for assessing the dimensions of MFS. The evaluation scale ranges from 1, which indicates that the interviewee considers the dimension very ineffective, to 5, which indicates that the dimension is very effective.

Figure 4: Evaluation scale



Source: [LIRNEasia \(2008\)](#)

Table 14 shows the description of interested stakeholders for each of the three categories. For example, Category 1 includes interested stakeholders such as bank executives and mobile telephony operators, as well as banking associations.

Table 14: Definition of categories

Category	Description
Category 1	Stakeholders directly affected by regulation of the telecommunications sector. Operators, equipment providers and business associations.
Category 2	Stakeholders who analyze the sector from a broader perspective. Consultants and law firms, consultants of financial institutions.
Category 3	Stakeholders interested in improving the sector to help the public. Academics, research organizations, user associations, journalists, members of civil society, government agencies and donors.

Source: [LIRNEasia \(2008\)](#)

The following table shows the number of experts in each category to whom the MFS questionnaire was sent by electronic mail.

**Table 15: Number of experts per category**

<b>Category</b>	<b>Experts (N)</b>
<b>Category 1</b>	17
<b>Category 2</b>	17
<b>Category 3</b>	24
<b>Total</b>	58

**Compiled by author**

Table 16 shows the number of experts in each category who responded to the questionnaire. In El Salvador, only Tigo Money participates in the MFS market. Tigo Money transfers are made using an over-the-counter model: the sender goes to a Tigo agent, who receives the money to be transferred, follows the necessary procedures and sends that amount, charging a 5 percent service fee. The recipient receives an SMS notification and goes to another Tigo agent to pick up the money.

**Table 16: Number of responses per category**

<b>Category</b>	<b>Responses (N)</b>
<b>Category 1</b>	5
<b>Category 2</b>	5
<b>Category 3</b>	7
<b>Total</b>	17

**Compiled by author**

Following the methodology suggested by Samarajiva et al. (2005), weighting was determined for each category.

**Table 17: Weighting, by category**

<b>Category</b>	<b>Weight of response</b>
<b>Category 1</b>	1.13
<b>Category 2</b>	1.13
<b>Category 3</b>	0.809

**Compiled by author**



## **4 Results**

MFS are not used for microcredit, paying wages or as sources of liquidity for paying for goods and services or deposits. In El Salvador, only money transfers via SMS messages are carried out. For that reason, some interviewees maintain that, strictly speaking, there are no MFS services in El Salvador. It was therefore very difficult to find experts on telecommunications, the financial system and regulatory frameworks who were familiar with MFS and were willing to participate. A significant number of experts to whom the survey was sent and with whom follow-up was done by email and telephone declined to participate, saying they lacked knowledge about the development of MFS in El Salvador. Others declined because they said the survey did not reflect the situation in El Salvador. For example, they said that if there is no regulation of MFS, it is impossible to evaluate the institutional environment as ineffective or effective. In addition, although conditional cash transfer programs are well known in the country, few people have detailed information about the beneficiaries.

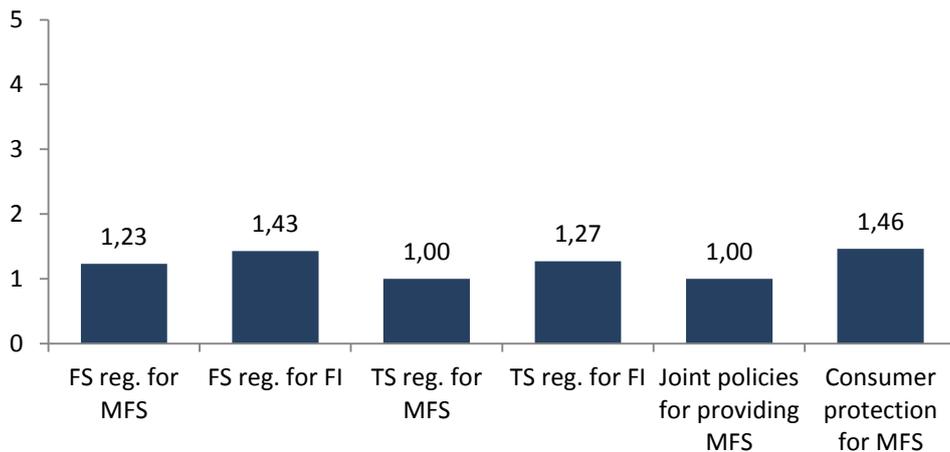
Each person surveyed was asked to evaluate the institutional, market and end-user environments for mobile financial services on a scale of 1 (very ineffective) to 5 (very effective).

- Institutional environment

In the institutional environment, financial and telecommunications sector regulation for mobile financial services and financial inclusion were evaluated. Coordination and joint policies between the telecommunications and financial sectors for providing MFS, as well as consumer-protection policies promoted by the two sectors, were also evaluated.

The following figure shows that the interviewees perceive the institutional environment as very ineffective, mainly because of the lack of rules of the game for development of MFS.

**Figure 5: Results of evaluation of institutional environment**



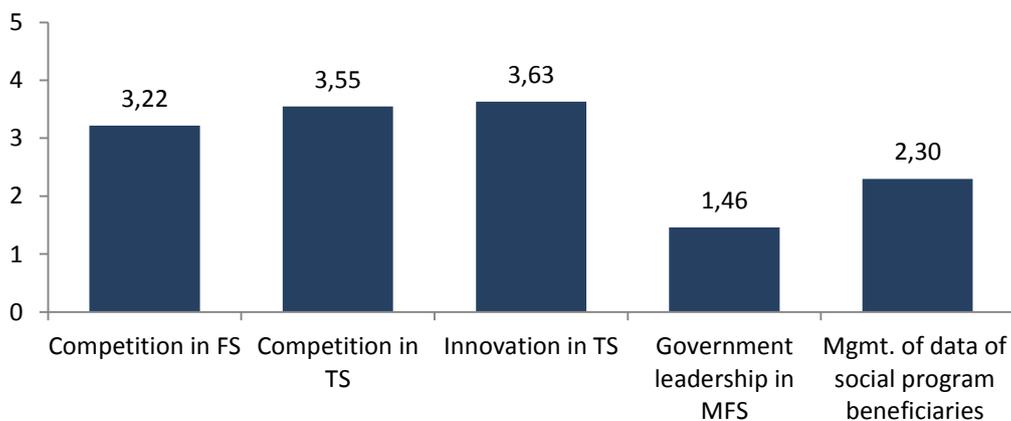
**Compiled by author**

- Market environment

The market environment evaluates the perception of competition in the telecommunications market and in the financial sector, the state of innovation in telecommunications, government leadership on MFS, and whether available information about social programs facilitates the use of MFS for transfers.

Figure 6 shows that three dimensions of the market environment rated higher than 3, close to the efficacy boundary. They are competition in the financial sector, with a score of 3.22; competition in the telecommunications sector, with 3.55; and innovation in that sector, with 3.63. The results also indicate that little government leadership is perceived in the creation of conditions to encourage the development of MFS.

**Figure 6: Results of evaluation of market environment**



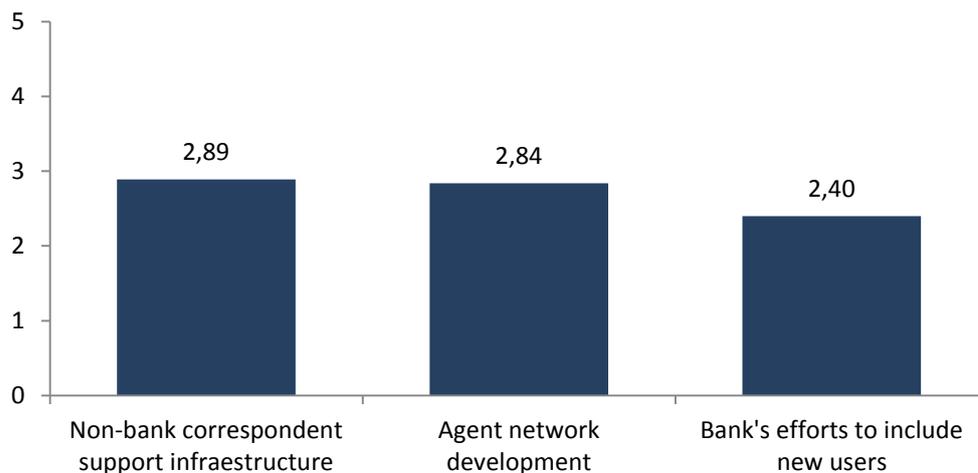
**Compiled by author**

- End-user environment

This evaluates the support infrastructure for non-bank correspondents (ATMs), agent network development and efforts by banks to include new users.

The following figure shows that support infrastructure for non-bank correspondents scored 2.89 and agent network development scored 2.84. Banks' efforts to include new customers received a score of 2.40.

**Figure 7: Results of evaluation of end-user environment**



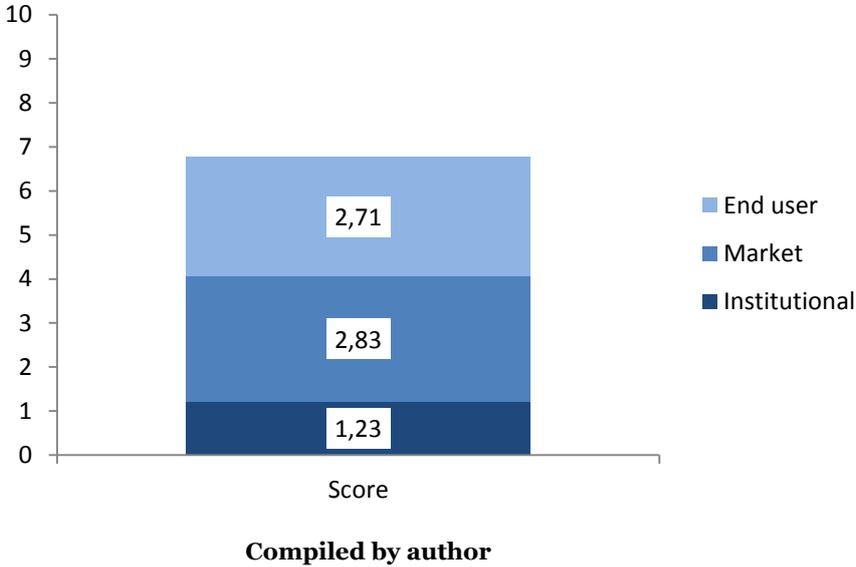
**Compiled by author**

- Results of the evaluation, by environment

The three dimensions evaluated are below the efficacy boundary. Of the three environments shown in Figure 8, the institutional is the most ineffective, with a score of 1.23. This should come as no surprise, since there is no regulatory framework for MFS and most survey respondents were unaware of efforts by the BCR and SSF to develop one.

The market environment received the highest score, with 2.83. This is mainly because of the perception that although the telecommunications and financial markets are highly concentrated, competition in both sectors is robust.

**Figure 8: Results of evaluation, by environment**



## ***Conclusions***

The results of the surveys and interviews highlight the weak development of MFS in El Salvador and the lack of knowledge about progress in this area. Except for the interviewees from regulatory agencies, the collaborators in the three categories believe that the government has not placed much importance on the issue, and most are unaware of efforts under way to develop the appropriate regulatory framework.

Most of the part of the electromagnetic spectrum that is best suited for mobile telephony has already been concessioned to mobile telephony operators and other telecommunication service providers. According to the stakeholders interviewed, new mobile telephony companies that want to enter the Salvadoran market may have to use higher access frequencies with less reach and penetration. That would require greater investment. In such a scenario, the number of stakeholders – and, therefore, competition in the sector – is not likely to increase in the medium term.

Available information does not make it possible to determine the degree of Salvadorans' inclusion in the financial system by geographic area and socio-economic level. Overall, there are 21 bank branches per square kilometer, equivalent to 11.4 per 100,000 inhabitants. Every district does not have bank branches, however. The offices are concentrated in urban areas, especially those with the highest population density.

El Salvador has no regulations for MFS. Significant progress has been made on a regulatory proposal, but it is still under development. According to the interviewees, the SSF and BCR are the entities that will supervise MFS. Telecommunications sector regulation of MFS has not been considered, and SIGET will have no role in that supervision. The regulations being developed point to an MFS model aimed at commercial banking. If a telephony company wants to participate, it will have to create a subsidiary whose main activity is related to MFS.

According to the experts, MFS regulations will also focus on promoting social inclusion. For example, making loan payments can be difficult for microenterprises and small businesses, especially those in rural areas or places far from a bank branch. MFS will allow them to make and receive payments by cellular phone, which could save time and transportation costs.

To combat money laundering, consideration is being given to placing limits on the amounts of operations. Given those amounts, MFS in El Salvador are expected to be a “low value” system that processes a large number of transactions of small individual amounts, generally transferred between individuals and small businesses.

In El Salvador, commercial banks are mainly transnationals. The largest banks are Colombian, US and Canadian. According to the interviewees in all categories, there is great competition among them, especially in the credit card and mobile banking sectors. There is high concentration of intermediation assets. No bank provides MFS.

According to interviewees in all categories, competition is greater in the telecommunications sector. Users have access to different consumer plan options and promotions for voice and message services. Operators offer “packaged” options in which the price of the “packaged” services is substantially lower than the individual services.

The interviewees agreed that support infrastructure for non-bank correspondents is not very well developed. Outside of large cities, there is little penetration of ATMs or POS terminals. According to the interviewees, banks lack corporate strategies for increasing inclusion in the financial system, unlike microfinance institutions.

The interviewees’ perception is that the institutional environment is very ineffective, which is mainly reflected in the lack of regulations for developing the business environment for MFS.

The results in the three dimensions of the market environment scored higher than 3, close to the efficacy boundary. Competition in the financial sector scored 3.22; competition in the telecommunications sector, 3.55; and innovation in that sector, 3.63. The results also indicate that little government leadership in creating conditions for development of MFS is perceived.

The results for the end-user environment show that support infrastructure for non-bank correspondents (ATMs), agent network development and efforts by banks to include new users are below the efficacy boundary.

## ***Recommendations***

Although MFS regulations are expected to establish the BCR and SSF as supervisory bodies, it is important to outline mechanisms for coordination between them and SIGET, the regulatory agency for the telecommunications sector.

Before approval of MFS regulations, it is important to carry out a consultation. It would be helpful to ensure that the regulations are consistent with the legal framework for financial transactions.

Given the weak development of MFS in El Salvador, it is important to organize events that bring together banks, mobile telephony operators, non-bank financial intermediaries and providers of payment services to encourage discussion of the future of commerce and mobile money, and especially of the advantages of strategic partnerships for reaching unbanked segments.

It is also advisable to ensure that the population, both those included in the financial system and the unbanked, has a broad understanding of the advantages of MFS and to offer MFS with a broader reach than is currently available.

In the past five years, El Salvador has received international remittances equivalent to approximately 16.5 percent of GDP annually, according to the 2011 EHPM. Approximately two out of every five Salvadoran families receive remittances regularly. To develop MFS, it would be important to identify growth opportunities and ideal strategies for creating links with the recipient that go beyond the distribution of cash at branches or authorized agents.

## ***Bibliography***

**Argumedo, Pedro. 2007.** *Competencia y regulación en las telecomunicaciones: el caso de El Salvador*. Serie Estudios y Perspectiva. México: ECLAC.

**Asamblea Legislativa. 1997.** «Ley de Telecomunicaciones». Decreto Legislativo 142 del 6 de noviembre de 1997, Diario Oficial 218, tomo 337, 21 November 1997.

**Asamblea Legislativa. 1998.** «Ley del Fondo de Inversión Nacional en Electricidad y Telefonía». Decreto Legislativo 354, Diario Oficial 142, tomo 340, 29 July 1998.

**Asamblea Legislativa. 2000.** «Ley de Integración Monetaria». Decreto Legislativo 201, Diario Oficial 241, tomo 349, 22 December 2000.

**Asamblea Legislativa. 2004.** «Ley de libre competencia». Decreto Legislativo 528, Diario Oficial 240, tomo 365, 23 December 2004.

**Asamblea Legislativa. 2011a.** «Ley de Supervisión y Regulación del Sistema Financiero». Decreto Legislativo 592, Diario Oficial 23, tomo 390, 2 February 2011.

**Asamblea Legislativa. 2011b.** «Reglamento de la Ley de Telecomunicaciones». Decreto Ejecutivo 84, Diario Oficial 133, tomo 392, 15 July 2011.

**Banco Central de Reserva. 2012.** «Retos y desafíos del Sistema Financiero». PowerPoint presentation. Banco Central de Reserva.

**Encuesta de Hogares de Propósitos Múltiples. 2011.** San Salvador: MINEC-DIGESTYC.

**Fondo de Inversión Social para el Desarrollo Local.** *Comunidades solidarias urbanas y rurales*. Retrieved 5 October 2012 from: <<http://www.fisd.l.gob.sv/temas/comunidades-solidarias/comunidades-solidarias-rurales.html>>.

**Fundación Salvadoreña para el Desarrollo Económico y Social. 2004.** *Boletín de Estudios Legales* 48, December.

**GSMA. 2011.** *Observatorio móvil de América Latina. Impulsando el desarrollo económico y social a través de la banda ancha móvil*. London.

**Government of El Salvador.** 2011. *Informe de segundo año de gestión del Presidente Mauricio Funes ante la Asamblea Legislativa.*

**Government of El Salvador. 2012.** *El camino del cambio en El Salvador.*

**LIRNEasia. 2008.** *Manual of instructions for conducting the Telecom Regulatory Environment (TRE) assessment.* Colombo: LIRNEasia.

**Molina, Francisco. 2007.** *Condiciones generales de competencia en países centroamericanos: el caso de El Salvador.* Serie Estudios y Perspectiva. México: ECLAC.

**Samarajiva, Rohan, Dokeniya, Anupama, Sabina, Fernando, Manikkalingam Shan and Sanderatne, Amal. 2005.** *Regulation and investment: Sri Lanka case study.* En A. K. Mahan y W. H. Melody (eds.). *Stimulating investment in network development: Roles for regulators.* World Dialogue on Regulation, pp. 141-176.

**Superintendencia General de Electricidad y Telecomunicaciones. 2005-2011.** *Manual de Indicadores de telecomunicaciones 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011.* SIGET.

**Superintendencia General de Electricidad y Telecomunicaciones. 2010.** *Boletín Estadístico de Telecomunicaciones 2010, 2011.* Retrieved 8 October 2012 from: <<http://www.Siget.gob.sv>>.

**Superintendencia del Sistema Financiero. 2012.** Sobre balance de los bancos y principales indicadores financieros. Retrieved 12 November 2012 from: <<http://www.SSF.gob.sv>>.

**United Nations Conference of Trade and Development. 2010.** *Análisis de la política de inversión, El Salvador.* UNCTAD.

**World Bank. 2012.** *The Little Data Book on Financial Inclusion 2012.* Washington, D. C.

**World Economic Forum. 2011.** *The Mobile Financial Services Development Report 2011.* Ginebra-Nueva York.

**Williamson, John. 1990.** *The progress of policy reform in Latin America.* Institute for International Economics.



## **Appendix 1 – Questionnaire: Mobile financial services**

This questionnaire is part of the project, “Banking the poor through mobile telephony: understanding the challenges for expansion of mobile-based financial services in Latin America.”

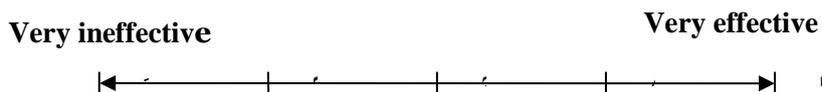
The overall objective of the project is to identify the constraints on growth of financial services with mobile technology for the poor and contribute to the design of mechanisms for promoting investment in and implementation of services, as well as their adoption by beneficiaries of social programs (such as Mi Familia Progresiva in Guatemala, Comunidades Solidarias in El Salvador and Tekopora in Paraguay).

Please complete the table according to your perception of each aspect related to the provision of Mobile Financial Services (MFS, *m-banking*). Mobile financial services include:

- Consulting account balances,
- Making transfers between accounts,
- Payments for services,
- Receiving/sending remittances, etc.

In general, we are referring to any service that financial institutions can provide to their customers and to non-customers, including all types of operations (transfers, deposits, loans), as well as operations between individuals and between people and businesses, through financial institutions and/or agents (correspondents).

**1 means very ineffective and 5 means very effective.**



	<b>Dimensions of mobile financial services (MFS)</b>	<b>Rating (1 to 5)</b>
<b>Institutional environment</b>		
	Financial system regulation of MFS	
	Financial system regulation for financial inclusion	
	Telecommunications sector regulation of MFS	
	Telecommunications system regulation for financial inclusion	
	Coordination and joint policies (financial and telecommunications sectors) for providing MFS	
	Consumer protection for MFS	
<b>Market environment</b>		
	Competition in financial sector	
	Competition in telecommunications sector	
	Innovation in telecommunications market	
0	Government leadership on MFS <sup>a</sup>	
1	Management of data/information about users/beneficiaries of social programs <sup>b</sup>	
<b>End-user environment</b>		
2	Support infrastructure for non-bank correspondents (agents)	
3	Agent network development (penetration)	
4	Bank efforts to include/capture new users	

<sup>a</sup>Interest and level of openness in the public sector (ministries).

<sup>b</sup>Refers to whether you perceive that there is adequate, integrated information about users/beneficiaries that facilitates implementation of mobile financial services.

<sup>c</sup>Refers to the deployment of infrastructure, such as ATMs, POS terminals, etc.

**Comments:**

## ***Appendix 2 – Interview guide***

### **Institutional environment**

- What is your opinion of the financial sector's regulation of mobile financial services?
- Is their regulation in the financial sector aimed at including the poor in the financial system? If so, please indicate what it is.
- Are you aware of MFS-related initiatives in telecommunications sector regulation? If so, please identify them and indicate your opinion of them.
- In your country, do coordination and/or joint policies between the financial and telecommunications exist for the provision of mobile financial services? If so, please describe and comment.
- Are you aware of the existence of regulations aimed at protecting MFS consumers? Please describe and comment.
- What are the main advances in the institutional environment for MFS?
- What are the main gaps and challenges that you find in the institutional environment for MFS for low-income populations?
- What are the main gaps and challenges that you find in the institutional environment for MFS, particularly for their integration with conditional cash transfer programs?

### **Market environment**

- How developed are the financial sector and telecommunications sector in terms of competition in the marketplace in your country?
- With regard to technology and innovation, what is the level of progress of telecommunications companies? (e.g., investment in infrastructure)
- Do you believe the public sector (ministries/secretariats) is interested in/open to the issue of MFS? Does the government lead development on these issues?

- If an effort were made to link MFS with conditional cash transfer programs, do you believe there is enough information about mobile telephony users and beneficiaries of social programs? If not, what is lacking?
- What do you consider the main market factors that limit the implementation and provision of MFS for low-income populations?
- What do you consider the main market factors that limit the implementation of MFS and their integration with conditional cash transfer programs?

### **End-user environment**

- How developed is support infrastructure for non-bank correspondents (agents) for MFS (ATMs, POS terminals, etc.)?
- How do you see the penetration (density) of non-bank correspondents?
- Do banks and financial institutions (savings & loans, mutual savings banks, cooperatives) take concrete action to include/capture low-income users?
- Considering the end-user environment (whether it is part of the system or is potential, such as recipients of conditional transfers), what do you believe are the main factors that limit implementation and provision of MFS for low-income populations?
- Considering the end-user environment (whether already included or with the potential for inclusion), what do you believe are the main factors that limit the implementation of MFS and their integration into conditional transfer programs?

### ***Appendix 3 – Additional comments from stakeholders interviewed***

- The main challenge in the area of electronic communication is for there to be a law that gives validity, credibility and consistency to electronic financial transactions.
- The telephony and financial sectors are fairly well developed. The only point to note is the tendency toward oligopsony. Possibly because of the size of the Salvadoran market, the number of providers always contracts, so the market becomes controlled, rather than tending toward perfect competition. There should be government intervention to avoid abuses by providers.
- The participating entities (IFIs and telecommunications companies) will have to agree on absorption of costs and distribution of benefits for the intermediation business. They should be concerned about ensuring competitive service, so transaction costs do not become a disincentive to using it.
- Lending banks and savings and loan cooperatives have designed strategies to expand inclusion of low-income users. For example, there is no balance requirement for opening and maintaining a savings account.
- In the institutional environment, it is necessary to regulate the financial system with regard to commission fees and prices of banking products or services. The banks have adopted price structures to encourage their clients to use only ATMs in their own networks by charging very high commissions for the use of ATMs in other networks.
- To implement MFS, it is important to regulate the telecommunications sector with regard to tariffs for users and charges between operators, establishing prices based on costs.
- In the government, there are initiatives for the incorporation of benefits through MFS. Key institutions, however, must coordinate better:
  - BCR-SSF: to develop the legal framework.
  - Technical Secretariat of the Office of the President: to encourage short-term initiatives in tangible projects.
  - SIGET: For integration of telephony operators, their regulation and correspondents on the electromagnetic spectrum.
  - Ministry of the Economy: To have the opportunity to catapult the subsidies it delivers via MFS.

- About four years ago, the Banco de América Central was promoting mobile banking, but I never heard any more about it. [...] I believe the greatest demand for the service would be for consulting balances and payment of services; I have my doubts about transfers between accounts, but the reception (more than the sending) of remittances could be an important use.
- Microfinance institutions are interested in establishing new service channels through correspondents, as a vehicle for serving the rural sector.
- One problem with conditional transfers via MFS is that the government typically delays payments to service providers, making it difficult to coordinate dates for making transfers.